



MILLIONS OF VOTES NEED ED TO SPUR CONGRESS

Broadcasting Stations and Readers Aid Radio Digest in Campaign for Less Congestion

CHICAGO.—"I am with you on your proposal to force some legislation to clarify the air." "Best thing Radio Digest has started out to accomplish." "Your campaign will be enthusiastically supported by our Radio club, which boasts two 'hundred members," etc., until the editor's desk has been completely swamped with letters. with letters.

with letters.

Communications from every section of the United States bear mute witness to the popularity of the "Consensus of Opinion" voting plan and the campaign to lessen the present undesirable congestion of the air.

Last week the Kintner plan was reprinted. It was given to readers so that they could see what some sort of plan would do for Radio. It has at last become evident to listeners that the present unorganized scheme of things cannot long endure.

unorganized scheme of things cannot ions endure.

Radio Is Public Utility
Radio has beeme too much of a necessary service to the public to be lightly cast aside. It has become a public utility, and all of this without an effective law to guide it. The good judgment of Secretary Herbert Hoover, acting as best he can has been Radio's only saviour.

The ultimate solution of the congestion problem, Radio Digest believes, will be in (Continued on page 2)

(Continued on page 2)

Dorothy Trom-cellist of the blsy Tric, who

HONOLULU TO **NEW YORK IN** 20 MINUTES Photos Show Navy Game Record-Breaking Photo Transmission Beats Fastest Transporta-tion by Ten Days (See Photographs on Page 6) NEW YORK.—Pictures flashed by Radio traversed the hitherto undreamed of distance of 5,000 miles in the short of distance of 5,000 miles in the short span of twenty minutes time, when photographs of the war department's manocuyres at Hawaii were recently sent from Honolulu to New York.

The revolutionary feat of Radio photo transmission beat hy ten days the fastest known means of transportation, airplane mail and fast mail ship. If the fastest mail boat leaving Honolulu were to carry the pictures to San Francisco, eight days would be required for the trip, and if an air mail plane at San Francisco carried the photographs to New York, anether two days would be eonsumed.

How Peat Was Accomplished How Feat Was Accomplished The pictures transmitted were taken near Honolulu during the recent American army maneuvres and naval games there. They were developed, converted into electrical impulses of varying intensity, and then transmitted by land were to the (Continued on page 6) Lorraine Allen, "Queen of the Ivories," at Station KFMQ.

BROKENSHIRE GIVES GOLD CUP SURPRISE

SPRINGS FROM OBSCURITY TO 14TH POSITION

Battle Continues for 1925 Title as World's Greatest Announcer— Hay Keeps Lead

Hay Keeps Lead

Well! Surprises are beginning to show in the announcing ranks. According to Shakespeare, Hoyle or some other person, you can't keep a good man down. To prove this, Norman Brokenshire, one of WJZ's staff announcers came from obscurity and jumped into fourteenth place.

Last week we told you to look for surprises and we meant it. It seemed about time that some dark horse would step into the limelight and try to steal the plaudits of the fans. Norman Brokenshire jumped considerable, but not quite enough, to get into the "fortunate seven."

The "Solemn Old Judge"—George D. Hay, announcer at Station WLS, and winner of last year's Gold Cup—is still in the lead. Six announcers behind him are still in the same respective positions that they were last week. Of course, they have improved their standing by certifure additional many staff in standing by certifure additional many staff in standing by certifure additional many staff in the standing by certifier additional many staff in the standing by certifi

were last week. Of course, they have im-proved their standing by getting additional votes, but the position is still the same. The Radio Digest Second Annual Gold

The Radio Digest Second Annual Gold Cup Award is creating considerable interest throughout the country, as evinced by the large number of votes now being received by the editor of the contest. From every state in the Union, Canada and Mexico, announcers are being nominated by numerous fans, as their choice for the Gold Cup.

Standing of the Leaders

Standing of the Leagurs

Each week the standing of the sixteen
leaders is changing. No one knows who
will be favored next week. It is up to the
fans. They are the ones who say whether
or not an anuouncer should be up among
the leaders. Every week brings a new
thrill, a new name, a new favorite. The
standing at the close of last week showed
the following names as the "first sixteen":

Dailine. Name and Stating. Votes

Posi	lion Name and Station Coccare D. Ray, W.S., Cochain M. Ray, W.S., The silved Hand, W.S.AF. The silved Hand, W.S.AF. Herry Field, K.FF.S. H. W. Arlin, R.D.R.A. N. Dean Cole, W.HO. W. G. "Bill" Hay, K.FK.N. Lambdin Ray, W.S. Gener Rouse, W.CAW.	Votes
1.	George D. Mry, WLS	.3,599
2.	Granam McNamee, WEAF	2,788
3.	The Bired Hand, WBAP	2,400
4.	Horry Field, KFNF	2,091
5.	H. W. Arlin, KDKA	2.013
6.	N. Dean Cole, WHO	1.692
7.	W. G. "Bill" Hay KFKX	1.685
8.	Lambdin Kay, WSB	1,447
9.	Lambdin Kay, WSB	1,886
11.	Robert Emery, WEGI	1,534
12.	Adams Cotheon, WFAA	1,510
1.1.	Charles Exhautein WTAS	7.495
14.	Norman Brokenshire, WJZ	7, 358
15.	Leo Fitzpatrick, WDAF	1,346

The new announcers are as follows:

CNRA, A. E. Plant, WCBR, Chas. H. Messter

KFFR, Christian Sherrin WCK, Helen G. Hatfield

KOP, H. O. Raunds

WGA, Tang Sych Clay

WBAO, Prof. Fred Tounsley WIBO, Harry Geise

WOAV, Eugene M. Konecky

American Stations Reach Australia on Recent Test

Austratia on Accent 1est
NEW YORK.—First prize for the best
broadcasting station to reach Australia
was presented to Station WAHG recently.
The test was to determine what effect
the equinox might have upon Radio waves
crossing the equator.
Among the other stations heard in Australia were, WOR, Newark, N. J.; WLW,
Cincinnati. Ohio; WCCO, Minneapolis,
Minn; WMAQ; Chicago, Ill.; WOC, Davenport, Iowa, and KFI, Los Angeles.

CONGESTION PROBLEM

(Continued from page 1)

(Continued from page 1)
the survival of the fittest. The stations
broadcasting the best programs—programs that the public want—in the best
way possible, will continue to exist, while
those who presist in crowding the air with
mediocre material with generator huns
and "asides" thrown in for good measure,
will be asked to cease operation—by the
public public.

Service, then, is to be the deciding factor.

Service, then, is to be the deciding factor.

Frinting Firms and Stations Help
Millions of "Consensus of Opinion"
votes (top of page two) are needed.

Thousands of these have been sent to
Radio Digest already, but hundreds of
thousands must be filled in and tabulated
into operation as soon as tests have been into a gigantic appeal to congress. Broad- completed.

All the Live News of Radio,......

KFI-The "Radio Central Superstation".

Operating and Trouble Shooting, for the Owner of a Radiola K... Advance Programs for the Week at All the Larger Stations......

casting stations are lending their aid and calling the attention of their listeners to the popular campaign. Five readers owning printing establishments have printed duplicates of the "Consensus of Opinion" voting blank at their own expense and are distributing them by the thousands to their friends. The less congestion campaign continues. Get every one of your friends to help make broadcasting a pleasure instead of a nuisance. A logical plan for giving first privileges to stations serving the public best, must be presented to congress and made a part of the nation's laws.

The area broadcasting at the station of the nation of the nation of the nation of the nation of the nation.

WMBF'S NEW VOICE

PUBLIC TO VOTE ON SUC-CESSOR TO J. H. JAY

Applicants Go Before Mike on June 1— Jay to Be Director of the Superstation

MIAMI, Fla.-The whole nation will participate in selecting the new announ-cer for WMBF, Fleetwood hotel at Miami



.I to 6

,8 to 13

21

ing the new annountivood hotel at Miami Beach, when Jesse H. Jay, present announce the new superpower broadcaster soon to be erected here. The announcement has just been made by Com. A. Perry Stolz, owner of the Fleetwood, that starting June 1, several applicants for the position of announcer at WMBF will be permitted to take charge of the microphone.

phone.

Votes from listeuers will be requested

grs will be requested and the announcer receiving the most votes will be given the position. In case of the vote running close, Radio fans will be given the opportunity of selecting the best mau in an elimination contest.

Jesse H. Jay, announcer for WMBF since it took the air, who is famous for his, "It's June down here, folks," will take over the reins at the new 2,500-wait superstation recently announced as in the process of construction at Miami Beach. The Carl G. Fisher interests, who built and made the Indianapolis Motor Speedway famous, are promoting and snipporting the new superpower broadcaster.

Looking Ahead

Year's Most Important Advance in Radio, control of tuned radio frequency so Tears Most Important Advance in Radio, control of funed radio frequency so that amplification per tube can be brought up to eight, will be the subject of the new series beginning next week by Milo Gurney. Six articles are scheduled and, to understand the new princple involved, it is necessary that the reader follow them through slowly and carefully. The sets you will either build or buy next fall will utilize this new circuit.

CONTENTS

Radio Digest. Illustrated. Volume XIII. Number 7, published Chicago, Illinois, May 22, 1925. Publishe weekly by Radio Digest Publishing Commany, 510 N Destrore Street, chicago, Illinois, Wateriploir rates, Piere Deliser; Foreign Pesiage One Delhe additional: single copies Ten Cepts. Entered as second class matter at the post office at Chicago, Illinois, uoder the Act of March '9, 1877, and the post office at Chicago, Illinois, uoder the Act of March '9, 1879, and the post office at Chicago, Illinois, uoder the Act of March '9, 1879, and the contract of the Cepts of the Command of the

KFAB, the Nebraska Buick Automobile Company Station, will grace page five next week. A number of photographs and the story of this popular broadcaster directed by Gayle Grubb, will be given. WAHG, Richmond Hill, N. Y., and CKY, Winnipeg, are soon to be featured.

You Saving Ballots for Your Favorite Announcer? If so, you will be interested in watching the changing standings of the leading—and other—candidates. The Gold Cup Award has a long time to run. Many surprises may be sprung before the competition has ended. Stand by.

Itmeters, Ammeters and Wavemeters, the instruments by which the Radjo man learns what is going on in his circuits, will be taken up next week by Professor Moreton in his A. B. C. course. By the flickering of the pointers, the action of the unseen and very minute forces are unmistakably followed.

Newsstands Don't Always Have One Left

WHEN YOU WANT

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

SEND IN THE BLANK TODAY

Publisher Radio Digost. 510 N. Dearbern St., Chicago, Ilineis.
Please find unclosed shock M. O. fer Five Dollars (Six. Foreign) for One Year's Subscription to Radio Dipest, Hiustrated.
Name
Address
City

Amateur Boxing Tournament Re-broadcast to Argentina

Ke-broadcast to Argentina
BOSTON, Mass.—Fans in South America recently heard a ringside account of the international amateur boxing tournament held here. The blow-by-blow description was picked up by KDKA from Station WBZ, and then rebroadcast to the hroadcasting station "La Nacion," located in Buenos Aires, on short wave lengths. A number of embryo fistic celebrities from South America attended the fights, and it was for the benefit of their countrymen that the bouts were broadcast.

American Legion Gets Roxy Radio Fund as Endowment

WashingTon, D. C.—The American Legion has just had turned over to it as a permanent endowment \$85.00 which is what remains of the \$200,000 collected by the Roxy Radio fund. This endowment will be administered on behalf of the veterans by the Legion to provide all public and private hospitals and other institutions which are for world war veterans with Radio equipment and maintain that equipment indefinitely.

The historic London broadcasting station on the top floor of the Marconi house has finally closed down. The new station is on the roof of the Seifridge store, operating under the old call letters of 2LO.

STATION GLEANINGS AND NEWSY BRIEFS

SUNDAY MORNING CHIMES FROM STATION WIZ

American Legion Night at KOA May 29—Operatic Numbers May 28 From Station CNRW

Sunday morning does not seem complete somehow without the sound of church bells wafting through the morning air, and with this in mind, Station WJZ is going to supply the Radio audienco with such an atmosphere every Sunday morning at 10:40.

Friday, May 29, will be American Legion night over KOA, Rocky Mountain broadcasting station. The entire program, beginning at 9:10 p. m. Central time, will be given under the auspices of Post No. 10 at Boulder, Colo.

A program of operatic numbers in which several of Winnipeg's prominent operatic singers will take part, is announced by Station CNRW on the night of Thursday, May 28.

Every Tiesday evening, Station WERI.

Every Tuesday evening, Station WEBJ, New York, will broadcast one and one-half hours of danco music. It will begin at 7 o'clock, when Dan Barnett's orchestra will take the air. At their conclusion, McLean's dance orchestra will follow.

Daylight saving time means an extra hour of work for Arthur Bagley, director of the Tower health exercises. The reason is that while WEAF and WEEI have switched to the new time, the Washing-ton crowd get their exercises from WCAP, falthful to standard time.

Mary Lawton, former actress, now devoting herself to literary pursuits, will continue her series of talks from Station WJZ. Her talks are on the life of the Clemens family, particularly Mark Twain, as told to her by an old servant of the family, one Katie Leary.

The Neapolitan trio, consisting of two dark-skinned natives of Italy and a white cockatoo, recently gave an afternoon concept from WGY, officially announcing the presence of spring.

The WEAF grand opera company was recently heard giving Verdi's opera "Rigoletto." This is an opera in three acts and the text is hy Plave adapted from Hugo's drama, "Le Ro! S'Amuse. The scene is laid in Mantua and vicinity in the sixteenth century.

Oue of the most unusual gatherings of stage and screen folk was held in the Giubel hrothers store in Philadelphia May 12. Station WIP, the official station of the store, broadcast the event, which was one of the largest ever handled.

"Lucia di Laminermoor," was recently broadcast from Station WGY, Schenec-tady, N. Y. This is one of a series of grand operas presented by WGBS and it is the first time that the General Electric company station has been linked with WGBS. WGBS

The Eveready hour broadcast Tuesday evening, May 12, gave the play, "A Pair of Shoes," through Stations WEAF, New York; WFI, Philadelphia; WEEI, Boston; WEAR, Cleveland: WCCO, Minneapolisst, Paul; WOC, Davenport and WSAI, Cincipated the control of the control o

Brooke Johns, banjoist and entertainer, recently entertained fans from Station WOR, Newark, N. J. His banjo has been autographed by President Coelidge and the Prince of Wales.

Station KSD recently broadcast the music and dialogue of a special pageant given by the Catholic Students' Mission crusade, a national organization, from the stage of the Municipal theater in Forest park, St. Louis.

More Stations for Chicago Are Now Ready to Operate

Are Now Keady to Operate
CHICAGO, Ill.—This city continues to
add to her already large number of stations. The two latest additions are
WFKB and WIBO. Station WFKB is on
217.3 meters using 300 watts. WIBO is
at the present time enlarging their station, and will operate on 226 meters using
500 watts.
Station WCBZ, located at Chicago
Heights, Ill., 4s now on the air using 217.3
meters wave length and 50 watts.

Desiring a new antenna, a youth in England out down a heavy ash tree thirty-one feet long and dragged it for more than a quarter of a mile to his home. The judge did not sympathize with him, but fined him \$5.

YACHT ZENITH WILL REPORT YACHT RACE

HICAGO.—"Blow-by-blow" details of the Chicago Yacht club Mackinac race will be broadcast "direct from the waves," according to Commander, E. F. McDonald, Jr., whose 95-foot yacht "Zenith" will follow and broadcast the race, with the call WSAX. The yacht is equipped with a 1000-wat transmitter and will broadcast simultaneously on 268 and 51 meters.

MYSTERIOUS ARTIST REMAINS UNKNOWN

INCINNATI.—The unknown artist who recently presented child dialect readings of James Whitcomb Riley's poems from Crosley station WLW still remains a mystery. She will return to WLW Wednesday, May 27, when listeners will be invited again to guess by phone, mall or telegraph who the reader is and her age. She has created a sensation with her child readings.

MADGE THINKS RADIO'S THE THING



ABE LYMAN HOLDS BIG PARTY FOR KNX FANS

Never Realized His Large Acquaintanship Among Devotees

LOS ANGELES, Calif.—Abe Lyman, leader of the famous Los Angeles Ambassador hotel Cocoanut Grove dance orchestra, did not know how many friends he had until he breadcast an invitation for all his Radio friends to attend an all day locities by WEAF inquiring as to the picuic and dence to be held at La Joya Lodge, a hill and canyon estate about forty miles from Los Angèles.

La Joya can accommodate about 40,000 Mystery.

Mystery of WEAF Singer Is Causing Plenty of Comment New YORK.—With the receipt of 2,000 elters by WEAF inquiring as to the name of "The Man In the Silver Mask," who is heard with the Silvertown Cord orchestra, the whole thing still remains a deep-dyed mystery.

people nicely and although it was impossible to ohtain an accurate estimate of the number who accepted Abe's kind Invitation due to the rugged nature of the canyon country, still it was some big party as traffic officers stations on the roads leading to La Joya will readily admit.

DERBY MAKES RADIO **BOW ON TWO MIKES**

WGN TO HANDLE 500-MILE SPEEDWAY RACE NEXT

WHAS and WGN Make First Broad-cast of Classic Horse Race at Churchill Downs

whas and wgn Make First Broadcast of Classic Horse Race at Churchill Downs

LOUISVILLE, Ky.—Broadcast by Station WHAS here, and WGN, Chicago, by remote control, the famons Kentucky Derby on May 16, for the first time in history was heard by all Radio fans within the range of these two stations.

WHAS, owned by the Courier-Journal, the famous newspaper of the south, mado famous by the late Colonel Henry Waterson, began its program at noon with talks and readings by world-famous.authors and writers who vividly portrayed the locale of the classic horse race. Credo Harris, novelist and director of WHAS, was responsible for the program which included reading of the famous news story of 1889, "How the Derby Was Won," by Gen. Harrison Carter.

At the track WHAS had microphones in the cupola, on the grandstand, the bandstand and on the track. Even the musical rythm of the horses hoofs pounding the turf could be distinguished by listeners.

WGN's Part in Derby

WGN with its corps of announcers headed by Quin Ryan, made the Derby extremely interesting for everyone. The Chicago station was connected by telephone wires with the Churchill Downs track at Louisville, where microphones were located in the cupola, the dining hall, and just above the heads of the enthused spectators in the grandstand.

A fourth WGN microphone was used in the press box by Jack Dempsey, the world's best known racetrack "clocker," who called every race as it was run, following with a summary. And even the ever-changing odds were reported to the Radio audience as fast as they were posted on the rear board—faster than even the fleetest "bookle's telephone system" could carry them.

500-Mile Races Next Week

The Indianapolis Speedway 500-mile race on Decoration Day, May 30, will be the next sport classic to be broadcast by the ever vigilant WGN, of Chicago, with Quin Ryan playing the leading part.

From 3 a. m. to 4 in the afternoon, Central standard time, this gripping speetacie will be on the air. Microphones in the pits," the grandstand, bandstand

Station Changes

Station WEBR, owned by the Howell Electric company, Bufflalo, N. Y., moves up a bit. It recently held the formal opening of its new studio in the Bramson building with a big program. This station now operates on 244 meters with 250 watts. WEBR made its bow to the Radio fans six months ago with only five watts canacity. capacity.

Preparation for the opening of Station CNRV, the latest of the Canadian National Railway's chain across Canada, are proceeding rapidly. The new station will come on the air early in June, it is expected, and will be one of the most powerful in the Dominion.

A change in the wave length of Station CNRR at Regina, Saskatchewan, is announced as a result of the couflict between the wave length of 31.23 meters recently allotted with those of Minneapolis and Denver. The Regina station of the Canadian National chain is now on a wave length of 356 meters.

Woman Wants Radio Divorce

LONDON, Eng.—English law courts were startled recently when a woman asked that the divorce decree be sent to her by Radio. She intended sailing for America to remarry, when she found that the decree would not be made absolute until after she had sailed. The request was refused, but she was told her lawyers could Radio the "good news" to her.

Coolidge Protograph for KFI
LOS ANGELES, Calif.—KFI is in receipt of an autographed photograph of
President Coolidge, which is framed and
displayed in the reception room with one
of Herbert Hoover, also dedicated to the
station. The broadcasting activities of
both men have been peculiarly bound up
with KFI.

KFI—The "Radio Central Superstation"



A Dream of Earle C. Anthony, Los Angeles



which is steed as the many of the

Sensational Circuit Disclosure!

DURING the past few weeks imporant advances in Radio have been developed that will effect the ENTIRE RADIO INDUSTRY — will increase range and volume to a degree heretofore not even approached. Working independently, three well-known authorities have been experimenting with Tuned Radio Frequency and have reached the same logical solution. solution.

solution.

Radio Digest "scooped" the world by securing first and exclusive information on the work of all three—the work which will be embodied in next season's receiving sets. Manufacturers have paid unbelievable sums just to look at the circuits before contracting for a license. Many have tied up with these engineers and are plauning their 1925-26 production on this

revolutionary advance in circuits.

revolutionary advance in circuits. To present this development that all our readers may understand it, we have arranged with M. A. Gurney, known to all in the industry as "Milo," and famous for the Miloplex group of sets, to write a series of articles taking our readers clearly and logically through the history of Radio frequency amplification into this new stage. Working constants and data for experimentation will be given and, later, a series of articles on the construction of a set.

Be sure to get the issne of May

ticles on the construction or a set.

Be sure to get the issne of May
30! Save it. Then get the following issues. You will then have the
complete advance story on one
of Radio's greatest forward strides
-yon will know what is in the sets
that lead the field next fall. Better
results on fower tubes results on fewer tubes.

Above are two of a series of photographs flashed by Radio in twenty minutes each from Honolulu, Hawaii, to New York city. The record-breaking feat spanned a distance greater than 5,000 miles. Fast boats combined with air mail plans would have required ten days at the best to bring the pictures from Hawaii to New York. The top picture is of one of the large Hawaiian defense guns, and the lower is—can you guess?—a line of doughboys taking mess at the field kitchen. The photographs are reproduced here exactly as received. No refouching was permitted:

(Continued from page 1)

RADIO PHOTO RECORD long remembered. The longest Radio photo transmission had been successfully accomplished. The Pacific ocean and the



Operating and Trouble Shooting

For the Owner of Radiola X

THE Radiola X Receiver using four WD-11 tubes is a complete Radio receiving set with self-contained loud speaker and provision for internal batteries, mounted in an attractive mahogany cabinet. It contains everything necessary for operation, except the antenna and ground connections and the necessary batteries. Its design permits one to cover the entire broadcast band and it will tune to all wave frequencies between 1400 and 540 kilocycles, 220 to 550 meters.

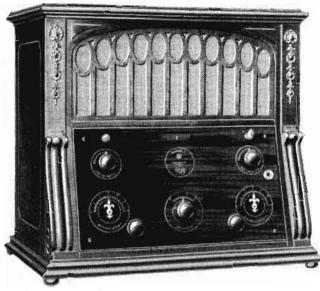
The circuit employed is the newly developed Regenoflex circuit, designed to eliminate radiation, and also to give selectivity to a degree unapproached by the usual antenna type of receiver.

Equipment

Radiola X is supplied completely equipped with tubes but it will be necessary to purchase batteries additional, besides the antenna and ground wiring. The A. B and C batteries obtained should be as follows: A battery, six 1½-vold day cells, such as Burgess Radio A Dry Cell No. 7111. Manhattan Red Seal Dry Cell No. 1211, or any other make of good dry cell having a diameter of 2½ inches and a height not exceeding 6½ inches and having screw and thumb nut terminals.

The B battery should consists of four 2½-volt units connected in series of any of the following: Burgess No. 5151 B P Plate battery, Ray-O-Vac Rov. 5151 B P Plate battery, or any other good make of Radio B battery whose base dimensions do not exceed 4½ by 2½ inches. Leads are arranged for intermediate size batteries may be used or some of the new vertical types such as Eveready No. 764 and Eurgess No. 5158.

Only one C battery unit is necessary



Bottery whose base dimensions do not exceed 4% by 2% inches. Leads are arranged for intermediate size batteries with lead and binding post as listed above. Other intermediate size batteries that be a better in the size of the size batteries in the size of the size batteries in the size of some of the new vertical types such as Eveready No. 764 and Burgess No. 5158.

Only one C battery unit is necessary and should be Eveready No. 771 Grid battery, or any other good make of three cell battery, the size of t

isfactory results may be secured by using only 20 to 30 feet of ordinary double cet-

ton covered bell wire, No. 18 B. & S., strung around the picture moulding. It may also be run the length of an attic. Such an antenna will not be satisfactory in a building with a metal lath under the plastor. A loop serial can be used for nearby local reception.

Ground

A good ground is as necessary as a good antenna. Perhaps the best ground is a good cleetrical connection to a water pipe. If this is not convenient, a connection to the steam or hot water heating system will serve unless there is a bad Joint in the piping. Connections to gas pipes should not be used. If nothing of this nature is available a pipe or metal rod may be driven into the ground to a depth of several feet, preferably where the soll is moist. The ground connection should be made with a ground clamp, the wire being soldered or held by clamping under a screw or nut. Be sure to scrape and clean the pipe thoroughly before attaching the ground clamp. Usually, connecting to more that one ground, for instance, to both water and steam pipes, will impreve reception.

Operation

may cause objectionable noises. If practicable, the antenna should be at least 15 feet distant from such wire lines and other aerials.

Outdoor aerials having a length up to 150 feet should be used since louder signals and greater distances cau thus be secured. Proper volume control and selectivity will be obtained by adjustment of the "Volume Control" knob, regardless of the size of the antenna provided the length does not exceed 150 feet approximately.

Indoor Type.—Fer local reception, satisfactory results may be secured by using only 20 to 30 feet of ordinary double cetals.

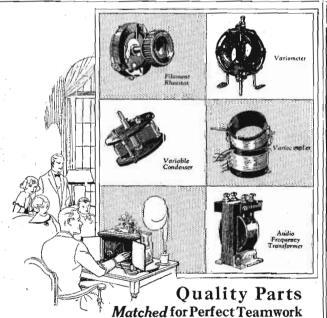
Will impreve reception.

Opperation

Volume Control.—The coutrol so marked serves to regulate the transfer of energy between the two luning circuits. Thus it regulates the strength of the signal. It also governs the selectivity of the set, the size of the antenna, provided the pointer of the "Battery Setting" should be at the length does not exceed 150 feet approximately.

Indoor Type.—Fer local reception, satisfactory results may be secured by using only 20 to 30 feet of ordinary double cetals.

(Continued on page 20)

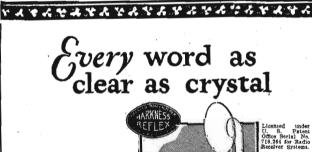


Your "pet" hook-up needs first quality parts-perfectly matched-to give you teal radio.

Every Federal Standard Radio Part is designed, made, matched and guaranteed by Federal. That is why you find Federal pairs in all the better hook-ups-that is why you should insist on Federal parts when purchasing.

FEDERAL TELEPHONE MANUFACTURING CORP





moth Haran makes it genuine.

EACH word clear, clean-cut and distinct, as if the speaker were standing at your elbow. Just one unit is responsible for the Reflex's well-known tone clarity. That is the crystal detector. You will find it in the Shamrock-Harkness Two Tube Reflex, the set which combines the outstanding features of the Save half the cost of buying. Build your own. The Shamrock kit contains all parts necessary to build this marvelous set, including full directions simply told. Enjoy the best radio in your community. Before building your set, mall coupon below for "Shamrock Radio Builder's Guide Book."

Also Ask to See the Improved SHAMROCK-HARKNESS THREE-TUBE COUNTERFLEX

The Wonder Set \$39<u>50</u>

For Best Results

SHAMROCK. HARKNESS Licensed Parts

The Shamrock Rit con-tains only these genuine, guaranteed parts.

SHAMROCK MANUFACTURING CO. Dept. 31C, Market St. Newark, N. J.

COO COO CLUB TO ORGANIZE AT WTAM

Saturday, May 23

Saturday, silent night fer: CFAC, CHNC, CHYC CNRT, CKY, KFAE, KFDM, KFKU, KFKX, KFMQ KFMX, KFRU, KIR, KUX, KOB, WBAP, WBAP, WCAU, WCBO, WCX, WDWF, WEAO, WEAR WEBJ, WEE, WEM, WGR, WGST, WHA, WHAD WHAZ, WHB, WHO, WIT, WKAO, WMAK, WOAI WOI, WOO, WOS, WSAG, WSUI, WITG, WWJ.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410.7), 7 D. m., kiddles stories; 7:30, Windsor hotel dinner concert; 8:30, studio program; talk on Quebec, Hoo. J. A. D. Caron; 10:30, Windsor botel dence orchestra.
WHG. Richmend Hill, N. Y. (315.6), 12-2 a. m., dance

Window build dance orthesitz.

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

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

WBBR, New York, N. V. (222.6), S. p. m., Dr. Hans the work of the control of the control

Eline and his dance orchestra: (1.20). Bellewis Stratford concert orchestra: 7, bellime stories; 8, Citizens' Military Training talk.

Military Tr



Eaymond
Dettiaff will
give piano
duets with
victor Hamm,
Mondayat
WHAD, Milwaukee. Mr.
Dettiaf is one
of Wisconsin's
best known
a mateur
musicians and
but recently
turned own
ity to go on a
v a ude vile
tour.

-10:30, Erma Riedo, soprapo: 10:30-11:30, Californi

10-10-30, Erma Riedo, soprano; 19-30-11-30, California Rambierz, M. Y. (61), P. (504-430), p. 1m., WOR's WGR, Budden, N. Y. (61), P. (504-430), p. 1m., WOR's WGR, Budden, A. J., Erlsman, director.
WHAR, Atlastic City, N. J. (275), 7:300, p. m., Searied hotel trio; 9, Shebburne hotel concert orchestra.
WHAR, Atlastic City, N. J. (275), 7:305, p. 1m., health talk, Dr. Landig; 8:30-4, Strond Roof orchestra.
WHA, New Yerk, N. Y. (300), 7:305-7:30, p. 1m., health talk, Dr. Landig; 8:30-4, Strond Roof orchestra.
Searchies; 10-30, beauty talk, Macde Deleali; 7 p. m., organ recital, Mart Bomawit; 3, Pietum orchestra; 5:44, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's bedtime stories; 35-40, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's bedtime stories; 35-40, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's bedtime stories; 31-10-10, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's bedtime stories; 31-10-10, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's bedtime stories; 31-10-10, songs, Charles Higgins; 6:15, Clarence Somnor's concert orientary 7, United Wird's Somnor's Concert orientary 8, 200-20, 10-

10:04, Benjamio Frankiji osike volusera, in studio Wan et al., Kerl Bonawi (2005.9), 7:05 p. m., studio Workers, K. I. (2005.9), 7:05 p. m., studio Workers, S. I. (2005.9), 7:05 p. m., studio Will, New York, N. Y. (454.3), 1:2 p. m. Erdody's Fark Lane scheducz; 2:4:30, Child's Cup Rase-Barlem (2005.9), 2:30, 2:

Eastern Standard or Central Daylight Saving Time Stations

Terente, Con. (357), 9 p. m., Little Symphony estra; Grace Stewart Fydell, contralto; Norma

CHIC, 1970aus, our control of the co

PWX, Havana, Cuba (490), 8:80-11 p. m., concert at studio, María Gonzalez, soprano. WBBM, Chicago, III, (226), 8-1 a.m., Jerry Cromack, Ned Santr, Jimmy Eggert, Moline Stricts, Crillon concepts.

ordicestra, WBCN, Chicago, III. (266), 8-11:10 p.-ip., Marie Wright, soprano: Peggy O'Nell, plaulis; Midway orchestra; "The Future of Chicago," Congressian Beny; Railibone; Dorothy Ferguson, Sylindhoulat; Les Cameron, Walter Fett; 11:10-12, Judge Ställe's court.

Waller Fett; 11:10-12, Judge Stätte's rourt.

WCAP, Washington, D. C. (488.5), 11 a. us., memorial
mass. Artifugton National cemetery amphildeater; 4
p. m., sevices, Bathleime dapel, Epitopai cluterl;
9:29-8, Roxy and His Geng, Capitol theater; 8-10,
Composers, Authors and Publishers.

WGEE, Elgin, III, (275), 10:30-13 midnight, Charlene
Star dance program, Joe Rodolph and the Bosts own orchestra. Frank Mocris, Eddie and Farnie
Cavaraugh, Polly Willia.

Girls; Pord and Glean; Orace Wilson, contraito; Nubs Alian, contraito.
NLW, Oinclasati, obis (422.3), 3 p. m., nausic features;
NLW, Oinclasati, obis (422.3), 5 p. m., nausic features;
NMAQ, Chicago, III. (427.5), 8 p. m., Thoroton Township bish school; 3, Russell Frait, Fred Daw; 8:39, Glacler National Park, Francis A. Marrell; 9, ChiWMPB, Chicago, III. (250), 7-8:30 p. m., semiciassical prograte, J. Bodewati Lanare, Restrict Feller
and Trianon encemble; Carlos Martini, vocalist; EscoO'Netl, Franklin Earl Hathaway; 2:30-16:30, Gaia
O'Netl, Franklin Earl Hathaway; 2:30-16:30, Gaia
Soldst; Linday McPhail, planist; Ceel Ward, guitarist; Vernon Buck, Frank Sylvano, Cameron and Fett,
Copators; Ciyde Hager, Warner, bappleist; Trianon syncopators; Ciyde Hager, Marrell, Parkling Sylvano, Cameron and Fett,
Copators; Ciyde Hager, and Cameron and Cameron and Camer

The Arion trio has been with KGO, Oakland, from the beginning. It is composed of Josephine Holub, violinist, Joyos Barthelson, pianist, and Margaret Avery, cellist, and may be heard this Monday.

Headliners of the Week

WCX. Detreit. Mich. (516.9). 4-15 p. m. mustcal programs 6. dinner content. Book-Cadillac hitel.
WEBH, Chiengo, Ill. (370-2), 7-30-8-30 p. m., Oriole orchestra; Dr. Herbert W. Virgin; Mirlam Herr, vio-liniat; 9:30-10-30, Oriole orchestra: Marle Keily, reader; Lansdon Brothecz; Kay Ronayse; Indiana malei Frank Sylvano, Marle Keily; Nod and Chee; Lansdon Brothers; Charlie and Gos.
WGES, Oak Park, Ill. (250), 5-7 p. m. elassical program, Frank Greit, tenor; Ruth Lyon, suprano; Arlore, Lansdon Brothers; Charlie and Gos.
WGES, Oak Park, Ill. (250), 5-7 p. m. elassical program, Frank Greit, tenor; Ruth Lyon, suprano; Arlore, Charlie and Gos.
WGES, Oak Oak Carlore, Charlie and Carlore, Ca

string cuminet \$3.09-3.08 storilo program, organ restring.

WGY, Schenestady, N. Y. (378.5). \$.30 p. m., Hen
Bernie's orchestra.

WGY, Schenestady, N. Y. (378.5). \$.30 p. m., Hen
Bernie's orchestra.

WHT, Chicago, Hill, musical program; 12-1, organ recicla, Iarm talls; (308.4). 7-8-30, classed program;

F. D. Stephenson, old Unic sone; John Reddirston,
harmonic; deser, Army and Navy program; 16:30
June Lee, coprano; Georgo J. Peters, Harble Klinia,
plantati: ballast, John Clara.

WHJD, Messcheart, HII, (362.3), 10:30 p. m., P. M.
Protecus, 803 Erdman, Kohn Lindsey, Golden etio, Mar
Straight's orchestra.

WKRC, Gienianati, Ohin (326), 10 p. m., Zunntehn

enfertainers; 11, Murray Horion's Bleid Alms orchestra.

WKS, Chiengs, HI, (344.6), 745 p. cs., Els Find and

J Aces of Harmony; Tony Correnan; Marssace Osyrity, Willismon Brochers; Walter Peterson; WLS,

Harmony trio; Raiph Emerson, organist: Harmony

WIP's annual revue is one of the big features Saturday. The staff has worked hard to make this year's revue bigger and better than last year's which was the talk of Philadel sphia for months. An evening of nonsense may he had at WTAM, Cleveland. Art Herske and Ev Jones will usher in the Coo Coo club.

Sunday is Empire Day for all the British Empire. CHYC. Montreal, will celebrate with a fine program. This same evening WEAF will broadcast the memorial concert for Victor Herbert, one of the most popular composers of the United States.

composers of the United States.

The American Legion is in charge of the Monday program at KOA. One interesting feature of the evening will be an address by Eben G. Fine, discoverer of the famous Fine Glacier in 1900. This should appeal to mountain climbers who have investigated these loy fields. WSAI also has an unusually good program tonight. The cantata "Triumph of David" will be sung from this station. "Cantungs Animals. for the Zoo."

"Capturing Animals for the Zoo," is the title of the talk to be given Tuesday by Dr. W. Reid Blair at WJY, Tuesday. Dr. Blair with have many thrilling adventures to relate.

Great Painting, "Marjerle Curry; Rene C. DeSmet. authority on real laces; S-4 p. m., koffee klatsch processive authority on real laces; S-4 p. m., koffee klatsch processive authority on the laces of t

wrotestra. 1.30 a. in., Freca Sangers Tougstool archestra. WTAN Cleveland, Ohio (369.4), 6-7 p. m., Hotel Statler orchestra: 8-9, studio program: 9-12, novelty program, Art Herske, Ev Jones, Coo Coo ctub: Dorothy Massell,

Art Herske, Er Jones, Coo Coo club; Dorettly Massell, WAS list, in III, 4302,9, 8-10-320, p. m., Villa Olitica Radio concert; Joe Rudolph and the Ross's Own or-chestra; Eddic and Fantic Cavanaugh; Frank Morrit, Coleman Goet, Polly Willo, Hartford, Conn. (348:01), 5:45 p. m., haseball WWJ, Ostrolt, Mich. (352.7), 12:65 p. m., Jules Klein's Hotel Statler orncater; 3. Detroit News orchestra. Central Standard Time Stations

Central Standard I ime Stations
KFAB, Licandin, Nebr. (240), 11:12:30 a.n., midnight
rounders.
KFMF, Shenandeah, Iowa (260), 7:30 p. un., Forest
City Music Makeri, 10:46, 10:70-80 p. un., International Sunday studoi; 3:12, music.
KEO. St. Leuis, Mo. (545.1), 7 p. un., Grand Central
theater; 8:30, dance music. (1ty shh.
KFHS. Hot Surings National Fark, Ark. (374.8), 8:40-3
p. m., specialities; 3:01, New Affuscion botel or,

D. m., specialties; 9-10, New Astrugues chestra. WAMD, Minneapolis, Minn. (244), 9 p. to., Osborn's orchestra.

about capturing dangerous and queer beasts from all corners of the earth. A Bohemian program is the special feature for WOAW.

Alumni of the University of Chicago will appreciate the college reunion program Wednesday at WGN. The glee club will sing and A. A Starg. football coach, will talk. KFVE is another new station in our midst. As this is owned by a film corporation, many interesting hints about motion picture production will be dropped now and then. "Motion Picture Set Designing and Construction," will interest the artist this week.

Picture Set Designing and Construction," will interest the artist this
week.
The Liederkranz society, famous in
Louisville for its good music, will
give the program Thursday at WHAS.
This is an old-fashioned singing society and does splendid ensemble
work.
WTIC announces the respearance
Friday of the New England trio.
Willfriede Baracca Gehrman, violinist, is a graduate of the Vienna Conservatory of Music; Sara Zach, cellist, is the sister and star pupil of
Arthur Zach, and Henri Tussenbrock,
planist, studled at the Royal Dutch

Arthur Zach, and Heilri Tussenmoca, planist, studied at the Royal Dutch conservatory. Although a new organ-ization it is already well known and

WCCO, Minneapolis, Minn. (416,4), 4 p. m., baseball scores; 6, baseball scores; 8:05, Dick Long's Nankin cate orchestra; 8:15, Cal. W. H. Finley 8:30; main cate orchestra; 8:15, Cal. W. H. Finley 8:30; main botal orchestra. Orratual Coorpe Oborne Ricollet hotal orchestra. WDAF, Kansac City, Me. (85.5.9), 203-4;30 p. m., popular songfest; 6-7, Tell-Me-s-Story Lady; Trianon canamible; 11:35-1 a. m., Merry Old Child; Plantation

ensemble; 11:45-1 a. m., Merry Our Chin, Franciscon Diayer.

Michael Company of the China China

Mountain Standard Time Stations

(222 4). 9-12 midnight, Joe Mann KOA, Denver, Colo. (322.4), 9-12 midnight, Joe and his Rainbow-Lane orchestra.

ANA, Desver. Sole. (222.4). 9-12 middight, Jos Mann and his Etalhow-Lane ordereits.

Pacific Standard Time Stations.

Fl. Las Angeles, Casis. (467). 5.29-6 p. m., Examiner Stations.

Fl. Las Angeles, Casis. (467). 5.29-6 p. m., Examiner Stations.

Fl. Las Angeles, Casis. (467). 5.29-6 p. m., Examiner Stations.

Fl. Las Angeles, Casis. (467). 5.29-6 p. m., Examiner Stations.

John Stations. (467). 5.29-6 p. m., Examiner Stations.

Best G. Commerce and Llower Lieb of Corona, Calif.;

5-19, one-act play, Bohemian players, Ernest White, director; musical numbers, Elesant Georgia Bunter, Radio club, Way Watts, Dorothy Cleveland, Jack Kurtz, Barner Weber and others; 11-3 z. m., EFT KFOA, Beettle, Wash. (454-8), 4-5:15 p. m., O'mpic hotel concerts; edge; ef-side, O'mpine hotel concert orchestra; eds. (548-8), 4-5:15 p. m., O'mpic hotel drafe music music; 100-5-1120. (Cymofe hotel darke music music; 100-5-1120. (EVANDA), 100-1100. (EVANDA),

Victor Hamm, pianist, is the other half of the M on day feature at WHADD 11 the WHADD 12 the MHADD 12 the MHADD 12 the MHADD 12 the MHADD 13 the MHADD 14 the MHADD 15 the MHA



saxophonist; Clear Lake Beach company; Marino Jadies' orchestra; Gleason male quartet; Elsa Behlow Tranier, soriano; Ludo Dordlino, saxopolosit; Jo-1 a. m., RG W, Pertland, Orc. (481.5), 12-30 p. m., Rose City trio; č. Pertland hoeld orchestra; 10, Mulifonnan holed, KHJ, Los Angeles, Califf. (485.3), 5:30-6 p. m., Leighton, Charles, Califf. (485.3), 5:30-6 p. m., Leighton, Charles, Califf. (485.3), 5:30-6 p. m., Leighton, Charles, Charles,

folk. San Francison, Callf. (428.3), 1-2 p. m., Rudy Seler's Fairmont hotel nerdestriz 2:30-3230, matthews 2:30-423, program, Low's Warfield theorems 6:30-633, concert and dance must. Palace hotel; 3:30-423, program, Low's Warfield theorems 6:30-7-30, Johnse Bulet's Cabirians; 7:30-12, Art Weldner's dance arthesis.

Sunday, May 24

Sunday, silent night fer: CFAC, CFCA, CKAC, CHIC, CHNC, CNRT, KFRB, KFAE, KFDM, KFRU, KFKX, KFMC, KFRU, KFCA, KLX, KOB, KSCB, PWX, KFMC, KFRU, KFCA, KLX, KOB, KSCB, PWX, KFCA, KFCA

Atlantic or Eastern Daylight Saving Time Stations

CHYC, Montreal, Can. (411), 7 p. m., Emmanuel church: CHYC. Mostreal. Can. (411). 7 p. m., Emmanuel church: 9, studio program.

WBGR, New York. N. Y. (272.6). 10 a. m., Versiower orchestra: 1015. Fred Twronchk, teor; 10.425. Fatch-tower criteries; 10.5. 11.95. is the Kingdom of the control of the co

EMPIRE DAY CELEBRATED FROM CHYC

Sunday, May 24

(Continued from page 8)

Church of Unity; Rev. Charles Wing, pastor; Philharmonic, quartet; 8 p. m., Ethel Paterson, colorature so-prancy Marian Peterson, accompanist; 8:15. Albert L. Walker, organist; Mrs. A. Walker, cellist; quartet; buy sourance.



director.

WOO. Philadelphia, Pa. (508.2), 10:30 a. m., services,
Wool. Philadelphia, Pa. (508.2), 10:30 a. m., services,
Rettiany temple; organ recital, Caroline Quieg, seruon,
Rev Gordon A. MacLenano; 2:30, Sunday school mu-sical exercises; Bethany temple; 6:05, organ recital of
secred hymns, Clarence K. Bawden.

steat exertises; nectuany tumple; 5-95, organ tectual of sacced hymns, Chrence & Bawden.

Eastern Standard or Central Daylight
Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 9:45 a. m., Point
Breeze Presbyterian cluwth; 8 p. m., Dr. Charles
Heimoth, organist; 2-16, Shadyside Presbyterian
clurch; 5-05, East End Certitian church
clurch; 5-05, East End Certitian church
services; 4-5 p. m., studio concert; 7, Chicago Sunday
Evenlog club, Dr. W. L. Sherry, speaker.

WCX, Detroit, Mich. (316.9), 7-135 p. m., services,
WCX, Detroit, Mich. (316.9), 7-135 p. m., plytle Boyd
orchestra; Dave Nudleman, Moline Staterz; 8-10, Seelring orchestra; Sandy Moch, Scotch temp. coppler Libmicroscopic and the control of the contr

Brothers.

WCAP, Washington, D. C. (468.5), 7:30-10 p. m., henlth
clak; concert, A. and P. Gypsies; "Days and Nights in
Washington," William Hard; talk, postmaster gon-

Washington," William Ulard, telk, postmaster gen-ral; special concert; festiures, WEAR, Cleveland, Ohlo (389.4), 8:30-5 p. m., Ivan Franctica and his Botel Gleveland orchestra; 7-8, Franctical and his Botel Gleveland orchestra; 7-8, WEH, Chiesgo, Ili. (370.2), 7-9 p. m., artists pro-

Kram.

KEES, Oak Park, III. (250), 5-7 p. m., classical program; Rudolph Hess, plantist; Helen Golden, contrakto; Dorothy Tatains, vibilited; 19-30-32. A. Cavallo and his 1 Master Maumann; Bobby Lee, Alfred Tweed, Blue Ribbon histmodica and guitar player; Harvid Movara, conor; Copun Berlin school min-

Havoid Morava, tenor; C0900 Heatrical school min-strel show.

ANN, Chicage, 111, (370.2), 11 a. m., Uncle Walt reads comics to the children; 11:35, program, Chicago theater; 8:30 p. m., Chicago Musical college; 9-10, Drake concert ensemble.

ANN CONTROL OF THE CONTROL OF THE CONTROL OF ANN CONTROL OF THE CONTRO

WSAI. Cineinenti, Ohio (326), 3 p. m., sermonelle, secred chimes.

WSAI. Cineinenti, Ohio (326), 3 p. m., 200 Rudolph and the Bose's Own orthestra; 5-12, Badis concert, loc Rudolph and the Bose's Own orthestra; 5-12, Badis concert, loc Rudolph and the Bose's Own orthestra; Fath Morria. Polly Willis, Famine and Eddis Caramauch.

WSAI. Lottle Volkmer.

Mountain Standard Time Stations

KWA. Defect, Mini. (352,7), 11 a. m., St. Paul's Ediscopal cathedral; 2 p. m., Detroit News orchestra; 6:20, Rozy and his Gang.

Central Standard Time Stations

WSII. lowa City, lowa (483.5), 9 p. m., familiar hymnes, Mrs. Lottle Volkmer.

Mountain Standard Time Stations

KWAI. Jeven (18, 180.2), 9 p. m., program, Chamber of Commerce of Logan.

VAN. Defect, Mini. (352,7), 11 a. m., St. Paul's Ediscopal cathedral; 2 p. m., Detroit News orchestra; 6:20, Rozy and his Gang.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 4 p. m., Rev. E. L. Hobbs, Elm Park Methodist Episcopal church. KFDM, Beaumont, Texas (315.6), 11-12 m., First Baptist

KFDM, Beaument, Texas (315,6), 11-12 m., First unputar. Church, Church

security 11. serono, 3 p. m., vespor settles. FUO, St. Louis, Mo. (45.1), 4 o. m., 'Abide in KPUO, St. Louis, Mo. (45.1), 4 o. m., 'Abide in St. Louis, Mo. (440), 6 -7 p. m., Radiocast review, Romaine Fielding; 10. sered snag recital; May St. May St. Months, 10. St. Review, Romaine Fielding; 10. sered snag recital; May St. May St. Months, 10. St. Review, Romaine Fielding; 10. sered snag recital; May St. May St.

Pacific Standard Time Stations

nost Presenyerian courtes, Eur. Ceeseys . Source, page 178 per fife Standard Time Stations Krl. Los Angeles Caill. (467). 0.30 p. m. McDaolels' nightly doings: 6:45-7, muscleal appreciation talk: 7:3, from stage and studie of Metropolitan theater, Addof Trandler's 5-pice ordentine; 3-5, hour of the classical control of the control of

Monday, May 25

Menday, silent night for: CHIC, CKAC, CKY, CNRT, KEOM, KEMQ, KEMX, KGW, KHJ, KYW. PWX.

Bonder (Windlage and Color of the Color of t

U. OF C. REUNION BROADCAST BY WGN

Monday, May 25

(Continued from page 9)

(Continued from page 9)

WIP, Philadelphia, Pa. (598.2), 7 a. m. setting-up escercise; 13 nenu talk; 19 m., Gjmbel tea room of chestra; 3, "The Two Great Sariadom, Kranton, Chestra; 4, The Chestra, Chestra,



Adolph Hollander is one of the most one promising of promising of the property of the lines and the same of the property of th

4:30. Evelyn Gross Robinson, contraito; 7:30; am Daddy; 8:30; Lit Brothers' chorus; 9:30, Stan-theater concert and symphony orchestra; 10, Ar-a cafe dance orchestra; vaudeville features, Fay's

Eastern Standard or Central Daylight Saving Time Stations CHNC, Toronto, Can. (358.9), 8:30 p. m., CHNC orchestra, Charles E. Bodley, director; A. Wellesley Chapter, Charles E. Bodley, director; A. Wellesley Chapter, Charles

fra; Charles E. Bourey, unrease, and the man battleball; (309.1), 2.30 p. m., haseball; KD KA Pittsburght pa. (309.1), 2.30 p. m., haseball; KD KA Pittsburght scores; E.15, address, University of Pittsburght studio; 8.36, concert. WBAV, Columbus, Ohlo (293.7), 8 p. m.; WBAV or-

chestra.

WBBM. Chicago, III. (225), 6-7 p. m., Crillon orchestra.

WCEE, Elgin, III. (275), 10:39-12 midnight, Joe Rudolph and the Hoss's Own orchestra; Frank Morris,

Polty Willis, Eddie and Fagnic Cavanaugh; Coleman

Z. Detroit, Mich. (516.9), 4:15 p. m., musical pro-n: 6. dinner concert, Book-Cadillac hotel; 7, mu-

gram; 6, danher concert, Duon Canalas and Salat program.
WEAR, Cleveland, Obio (389.4), 7-8 p. m., Loew's State theater.

tecting Public Againat Short Weights, C. J. Meg-nolds; 9:0,9 E. B. Smith; 945, Ed. Paul, musical saw; George Milner, plantst.

HT Chinege B. L. G. School, 11:30-12 p. m., recipes, With Chinege L. L. G. School, 11:30-12 p. m., recipes, With Chinege L. L. G. School, 11:30-12 p. m., recipes, With Chinege L. L. G. School, 11:30-12 p. m., recipes, The Barnes, interies; Ransons Bertman, rangear; bal-rat Barnes, interies; Ransons Bertman, rangear; bal-Wijlp, Resembart, III. (302.8), 10:30 p. m., Reneau Sisters, Clarence Barner, Dave Muddeman, J. T. Shufflinwaki, G. O. Lelbeter, William Horowitz, Gen-ere R. G. School, 11:30-30, 11:3

musti.

W.W. Classinati, Ohio (422.3), 10:15 p. m., monday services. Rev. Co. E. Kaser, 6, program. Christian exhibits, disectors, Robert Victomit; 2:15, spening of entertiament season at Clastinati Zeological Garden, the Famous Meyer Davis orthestra. Meyer Davis, di-

the Famous Meyer Davis orchestra, Meyer Davis, director.

WMAR, Lipsch N. V. (26.5.) 8-8 p. m. mustaler.

WMAR, Director.

WMAR, Director.

WMAR, Chicago. III. (447.5), 4-20 p. m., Lhear. Bish these mindleft. frolic.

WMAR, Chicago. III. (447.5), 4-20 p. m., Chicago. Bish School Teachers' council; 6. Chicago. theater organ recitat; 8-20, Hotal La Salla orthestra; 6-20, Fantly Allat Saxya. III. (27.5), 8 p. m., All-hone with boys and girls. Uncle Dan; 8-20, Junior chelt; Congressional church, I. Edwin Schnelder, director; Bible lecture, G. A. Ball.

WGI, Chicago, III. (447.5), 4-1 p. m., "Meet Substituted WGI, Chicago, III. (447.5), 4-1 p. m., "Meet Substituted WGI, Chicago, III. (447.5), 4-1 p. m., "Meet Substituted WGI, Chicago, III. (447.5), 4-1 p. m., "Trinaph of David," captale, Prof. David Davis; 10, mustal program.

David, cautala, Prof. David Davis, 10, muscus pro-wer at Coverdand, Ohio (389.4), 12:15-115 p. m., jurch hour music; 8-7, Auxio Wile 2nd his Golden Phoasand oreceivers; 2:11, Vitor Recheet nizhs, Sym-nhory orchestra; Piercage Wasson, sopramo; Alice Show Dugan, comirally Harold Branch, smor; Athur Parry, barison; 11-12, William Metcall, organistic WTAS, Elgin, III. (362.8), 8-10-20 p. m., Villa Orites

concert, Joe Rudolph, orchestra; Eddle and Cavanaugh, Frank Morris, Polly Willis, Cole-Frank Cavanaugh, Frank Mories, Folia, Julia, Keln's man Godki, Vel's, Detrolt, Mich. (352.7), 12:05 p. m., Julea Kieln's Hotel Statter orchestra: 6. dinner concert; 8. concert from New York; 9, Detrolt News orchestra.

Hofel Statister orchestra; 6. dinner concent; 8. concert from New York; 9. petrol News orchestra.

Central Standard Time Stations
KFAB. Lineole, Nebr. (240), 7:30-9:30 p. m.. Collegians orchestra; Orville Andrews. Builde warbler; KFAB. Lineole, Nebr. (240), 7:30-9:30 p. m.. Collegians orchestra; Orville Andrews. Builde warbler; KFAB. Lineole, Nebr. (250), 5:30 p. m. Lineole, Nebr. (250), 7:30 p. m. Lineole, Nebr. (250), 7:30 p. m. Collegians, Nebr. (250), 7:30 p. m. Radiocatter, Nebr. S. Serkes, Pandist. (C. G. Cools), Sensi, Yangaran, Nebr. (260), 2000.

SAC, Mashattan, Kan. (341), 12:35 p. m., "Roducing KSAC, Mashattan, Kan. (341), 12:35 p. m., "Roducing Lussess From Lightning, W. G. Ward; "Thin the Applies," L. C. Williams. KSD, St. Luit, Me. (345:1), 8 p. m., Cardner, Meter Company Bartella-Line entertainers, 10, Katharine company Bartella-Line entertainers, 10, Katharine

KSD, St. Leuts. Mo. (345.1), 9 p. 13., Claringer Moter company Eight-In-Line entertainers: 10. Katharine company Eight-In-Line entertainers: 10. Katharine KTRS. Het Springs National Park, Ark, (374.8), 8:39-39. New Artington both 3:39 p. m., baseball: 8:49-9. New Artington both stories, Comp. Al; 9:30-10. New Artington orchestra. WBAP. Fort Warth, Texas (475.9), 12:39-31-239 p. m., Fred Wanner's Elevation tolo; 750.8:39. Mrs. Black. 11:12, George C. Crunier Fallec theater orchestra. WBAR, Sishit, Wis. (408), 9-10 p. m., County band. WBAP, Sishit, WBAP, Si

wists, namely Pines, as a secondary with the program, Newman and Boyal theaters; 6-7, Cedig Burton, reader; Arianon ensemble; 8-10, Ivanino band, Weller A. French, director; Ivanino gise club; 11:85-W. Belott, Wist. (260), 8:309-9:45 p. m., Belott

Weller A. French, circeotr; irachoe gree clue; i.i.sci. WBBWer; Old Chief, Plantation players, m., Beloit college program.

WFAA, Dallas, Texas (475, 9), 2:30-1 p. m., Red Read Girl; 0:30-7:30, Enddy Blue Melody Boya. Stumpo, director.

WGST, Atlanta, Ga. (270), 9-10 p. m., Carroll D. Edgar, plantat. Roge Certis, sormon; George Hoffman, plantst. Mrs. Hugh H. Leech, plantst; Olyge Myers, plantst. Mrs. Hugh H. Leech, plantst; Olyge Myers, Prof. E. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. A. Coon, plantst; Prof. E. W. Morgary, Prof. L. L. Cool, Prof. Royal, Prof. Prof

farm talk, C. W. Watson; 8:30, Hotel Gayes crchestra.

WOAW, Omaha, Nebr. (528). 18:30 p. m., nocotiag.

Troytam Randall's, Revu Fentenralle orchestra; 6,
program Randall's, Revu Fentenralle orchestra; 6,
program Fentenralle, 18:40

Georgians orchestra; c-c, consistence of the Seven Aces.

WSMB, New Orleans La. (319), 8:30-7:50 p. m., organ.

WSMB, New Orleans La. (319), 8:30-10:30, concert of the Seven Aces.

Fig. 120-10:30, concert of the Seven Aces.

Wilson Construction of the Seven Aces. wSul, lewa City, lowa (483.6), 8 p. m., pipe prean recital, Mrs. Preston Coast.

Mountain Standard Time Stations

NVOUNTAIN STANDART I IMP STATIONS KFWA, Ogden, Utha (281), 4 o. m., Zentit Radio Deal-ers' bour musicate; 9, program, Fred M. Nie company, KOA, Denwr, Cole. (322-2), 5 p. m., Fred Schmitt and Boulder Post No. 10, American Legion; "An Ad-renture gn the Araphoe Gialefr," Ebon G. Fling, "The American Legion, Its Disabled and Orphane," John C. Vilvan; "How the American Legion Auxiliary John C. Vilvan; "How the American Legion Auxiliary"

Hopes to Aid the Disabled Men and Their Families,"
Marguerite Peyton Thompson.
KOB. State Osliege, N. M. (348.5), 7:30-8:30 p. m.,
"The Prevention of Disease," Dr. E. E. McBride;
Mrs. Thomas Strangan, subsets; New Mercato Did calks,
stories, Emily Stories, Debugger, Strangan, Stories, Emily A. Waterman, Fountial quartet; Henry
Stories, Emily A. Waterman, Fountial quartet; Henry
Stories.

Pacific Standard Time Stations

Stoes.

Pacific Standard Time Stations

KFAE, Pulman, Wash. (348.6), 1:39-9 o. m., Gamma Nu Serority; Margaret Baker, pisaist; Clardes Shattuck, examples, 1:10 of the pisaist; Clardes Shattuck, examples, 1:10 of the pisaist; Clardes Shattuck, examples, 1:10 of the pisaist; Clardes Shattuck, examples, 1:10 of Businss Administration of W. S. C.," Frof. R. W. Cordell; "Agricultural Fertilizers," E. L. Green; G. Businss Administration of W. S. C.," Frof. R. W. Cordell; "Agricultural Fertilizers," E. L. Green; Dreas Selection for Misch," E. Belle Alger; "A "Threas Selection for Misch," E. Belle Alger; "A "Mischeller," Angeles, Calif. (487), 5:39-6 p. m., Exampler's mallinee program, 6-6:15, McDaniel," highly deliner, 16:15-7, radiotorial tatis," -5, Evening Herald, clauder, 16:15-7, radiotorial tatis, -5, Evening Herald, clauder, 16:15-7, clauder,

Tuesday, May 26

Atlantic or Eastern Daylight Saving

CKAC, Mentreal, Can. (410.7), 7 p. m., kiddles stories; 7:39, Windson hotel timer concert; 8:39, rariety concert, Montreal Press club; 8:39, "See Quebee," J. N. Dufresse; 10:39, Harvild Leonard; Red Jackets or-

Control Monaco and Control Real Jackets or Chestra.

CN SA, Manctao Can (315) S. 30 p. m., Mrs. J. W. MacKay, seprency Mrs. R. L. Aigle, mendolivative metal and the seprency metal seprency metal seprency control of the seprency metal seprency met

WGAE. PICKBURTH. The Notes of the Control of the Co

orchestra.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m.,

Metropolitan tower health drill; 11-11:10, musical

program; 11:16-11:25, "Life Saving." Captain Charles
B. Soully; 11:25-11:30, muste; 11:30-11:45. "Dimmatic
B. Soully; 11:25-11:30, muste; 11:30-11:45. "Dimmatic
Beatding." Miss Edua Rekert; 11:15-12, motion picture
forecast, Adele Woodard; 4-4:15, Mabel Lee Stover,
soprame; 4:15-4:30, Kathleen B. Pitsher, painait; 4:30-5,
Women'a program; 6-7, dinner ausic, WaldorfAstoria; 2-713, Windred Bauer, Dimit; 1:16-7:30,
dyne trio; S-8:10, talk, Bank of America; 3:10-8:20,
Mr. and Mrs. Burton Piersel, haritone and sopramo,
accompanied by Miss Elizabeth Gest; 8:30-9. Gold
Dust Tweins; 9-10, Besensity hour; 10-11, grand
uppera, Samason and Dellish; 11-15, dance anusic.
Bey, violatina, accompanied by Norman Hemofield;
7:30-7:45, dueta, Alfred Seeger and Pescy, Wynge; 88-10 railbood talk Garrow T, Gest; 8:15-9, Slobert;
ortiginal Midnight Serenaders, direction of Walter
WELL Bester, Mass. (47:50, 2, n. m. Naniel Yeur; 20-

Original Midnight Serenaders, direction of Waiter Siebert.

WEEL, Bosten, Mass (475.9), 2 p. m., Napolt Four; 3, orgue rectal; 5:15, Big Brother clarb, 7:15, Doken Green, 19:15, Doken Gr

Mrs. Jaok Olifford, so-prano, has a high, sweet voice, well adapted to the microphone. KPDM, Beau-mont, discov-ered this fact and she is now a regular fea-



10:40-10:50, etiquette talk, Lillian Eichler; 10:50-11, acek Cohen; 1:30-1:35 p.m., Berljuure reading; 1:35-20; M. Cohen; 1:30-1:35 p.m., Berljuure reading; 1:35-20; M. Cohen; 1:30-1:35 p.m., Berljuure reading; 1:35-20; M. Cohen; 1:30-1:30; M. Cohen; 1:30-30; M. Cohen; 1:30-30; M. Cohen; 1:30-30; M. Co

planist; 9. Philadelghia public schools music appreciation lecture; Ben Strod string quartet; 19-05, movie catches and the control of the con

(Continued on page 11)



John Reddington is the musical member of the Chicago Pire Department. He and his harmonica are well known to fans who tune for WAT, Deerheld. He will appear this Priday.

WOAW TO GIVE BOHEMIAN PROGRAM

Tuesday, May 26

(Continued from page 10)

(Continued from page 10)

organo 11.12. Midrey danning ordestra; Peggy

O'Nell, appranci 12.9. Prate man,

O'Nell, bright 11. (272), 10.20-12 middight, Joo Rau
dolph and the Boss's own orthestra.

WCX, Detrolt, Mich. 3(16), 9. 136. p. m., musical pro
grams 1.6. dinner concert, Bosh Cadillae hotel; 16. The

WEAR Cleveland, Ohio (383-4), 7-8. p. m., programs

from WEAR'; 10-11, Vincent H. Percy, organist
troll, wear of the state of the state

cut. curseable. Biackstone siring uninet; 8:30-9:29, studio program; 10:30-11:30. Drake Hotel Terrace Garden program.

(4' v. Schneckstone v. V. (375.5), 5:30 p. m., dinner (4' v. Schneckstone VanCurier crecksta, 8:53, "Emglish and American College Albeites," Prof. William Holtmore; 0:30, WCK orchestra; Cella A. McManus, express, William Tottechie, tenor; 9, travel talk; 10, WT, Dhasep, III. (238), 11:30-12 p. m., recipes, WT, Dhasep, III. (238), 11:30-12 p. m., recipes, tenor, p. 11:30-13 p. m., recipes, p. 11:30-

Bosemary St. Louis (below), one of the leading members of the WGY playere, may be heard this Friday in "Tweedles." Madame Frances Gabrille (right) is the mysterious operatic sopram of KHJ. She is known on the coaet as the Tetrazzini of the microphone.

ning Protection of Buildings and Astlats," Prof. S.
C. Lee; S. 15, J. A. Banfield company's program.

KFMB, Licenin, Mebr. (240), 5-6 p. m., Schmodler & KFMB, Licenin, Mebr. (240), 5-6 p. m., Schmodler & KFDM, Beammont, Texas (315-6), 12:30-7), p. m., band connect; 7-7:30, children's program: 8-10, band contect; 8-10, band content program: 8-10, band contect; 8-10, band contect; 8-10, band content program: 8-10

Margaret Andre (below), pretty soprano soloist, is heard every Saturday evening as the feature of Joe Mann's popular Kain-bow-Lane orchestra.

Photo, Robert Bordeaux.



musle hour; 11, Doe Howard's Original WKRC broad-

Enceld nouse studie; 6-7. Hole: Stallor consert or-chests.
WTAS: Hill (202.8) 8-10-30 p. m., Joe Rudshall, WTAS: the Boss's own orchestrs; Frank Morts, Folia-Walls, Eddied and Fannie Cavanaugh, Coleman Gest-WJIS, Hartford, Genn. (348.6), 6:35 p. m., backall scores. National, American, International, Embour-lesquest, 7. Reney, 2 Bosses, 2 Bounder, organist; 5. "Vousting on the Cavibbean," Joseph St. 5. Ma Mary Person, sograno: 1410, stollast; 9, dance music. WWI, Defrast, Mich. (352.8), 12-36 p. m., Joles Kleins, Linde Statler or Stall Research (1998), 100 p. 100 p.

ner concert; 7, concert from New York.

Central Standard Time Stations

CKY, Winnipeg, Can. (384.4), 8:30-8:45 p. m., "Light-

barefull; 8, baseball; 6:05. Biley's St. Paul hotel cancert orchestra; 7:8 program from New York; 8. Nahon; 9:15, "Work of the Child Welfare Committee of America," Otto F. Bradley.

WDAF, Kansas City, Mo. (358-6), 2:30-4:30 p. m. Stars Reduction, 124:Me-a-Story Lady, Manuf-Newman Nighthewit night Tranon ensemble; 11:30-1. Newman Nighthewit Nighth

WHO, Des Maines, Iowa (325), 7:30-9 D. m., routenry band.

Who and the state of the

Current Problems in Applied Legnomics," Prof. H. F. Clark.
WSB, Atlanta, Ga. (428.3), 3 p. m., baseball; 5-6, Bonnie Barnhardt; 8-9, Vic Myers Melody nrtists; 10:45, concert.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organ solos, instrumental program.

WSU1, lowe City, low (483.6), 12:30 p. m., "The Study of Italian," C. E. Young.

Study of Italian," C. E. Young.

Mountain Standard Time Stations

CNRR, Regina. Can. (3(23), 8 p. m., bedtime travel

RFWA, Ogden, Utah (261), 9 p. m., Occar C. Martin's

KFWA, Ogden, Utah (261), 9 p. m., occar C. Martin's

KOA, Derwer, Cole. (322.4), 3 p. m., matinee for housewives; 6, dinner music, News-Thiese.

wives; 6, dinner music, New Those.

RFI, Les Angeles, Calif. (467), 5:30-6 p. m., Examiners matthes posterom; 6:6:15. McDaniel's riskily dolling 5:63-7. resiluctivit. ultik, 7-5, organia, 7:10:15. m. (1) and the state of Surface of

gram, Colyear Motor Sales company; 10-11, Art Hick-man's Bilimore hotel dance orchestra, Earl Burinstt,

raan's Billimore holel dance orchestra, Earl Burinst, leader, (NX. Helywood, Calif. (336.9), 5.30-5.15 p. ... Wurlizer pine organ studio, Sid Ziff's aports talk; 6.156 p. ... California of the control of the control

Wednesday, May 27

Wedanday, silent right for: OFAC, CFCA, CHKC, CHC, CMTT, CKAC, GKY KFDM, KKKU, KHKX, KFMQ, KOO, KOB, WBAV, WBBR, WCAL, WCBS, WDWF, WBAO, WBW, WFAA, WFF, WGBS, WGY, WHAR, WHAZ, WJAO, WJY, WLBL, WMAX, WMC, WOAI, WOAK, WOI, WOR, WRC, WREO.

Atlantic or Eastern Daylight Saving

Time Stations
Montreal, Can. (411), 8:30 p. m... C. N. R. program. CKAC, Montreal, Can. (410.7), 1:45 p. m., luncheon

CKAC. Montreal, Can. (410.7), 1:45 p. m., luncheon conect.
WAHG, Richmond Hill, N. Y. (315.6), 12:30-115 p. m., sheatial program, dime signals and weather reports; 7:30-7:45, snort review, Thornton Pisher; 7:45-8, Harry Carlow, Thornton Pisher; 7:45-8, Harry Carlow, Thornton Pisher; 7:45-8, Harry Carlow, Photon Carlow,

concert.

WGAU. Philidelphia, Pa. (279), 8:30 p. m., Hotel
Pemsylvania concert orthestra: 8, rectul; 8:39, concert: 8:48; "N. B. T. Boyer' concert; 8, concert; 10:10,
Radin talk.
WEAF, New York, N. Y. (491.5), 6:45:7:45 a. m.,
Mctropolitun tower health drill; 11:11:10, Edna Frandinl, soptano; 11:10:11:25, health talk to mothers;

for woman; 10:50, beauty talk, Mande Dajogii; 1 p. m., Gimbel, tas noum orthestra; 2, regital, stymms, Montani vocal studios; 4:20, talk, "Fathers, Amediation," Hubert E. Primei; 6:05, Benjamin Frankows concert orchestra; 7, fucle Wijs, bedlime slorid, anchestra; W. 199, program from New York, 198 p. ill., anchestra; W. 199, program from New York, 198 p. ill., anchestra; W. 199, program from New York, 198 p. ill., anchestra; 10:20-10:30, The Sixt Sabay, "Matthew, Name services 10:30-10:30, The Sixt Sabay, "Matthew, Name services 10:30-10:30, The Sixt Sabay, "Matthew, Name services 10:30-10:30, Amy Nail Hicks; 10:30-11, fashion talk, Eleanor Gunn; 1):52 p. ms. lunchoon music; 2:2-10, "Fernossitiv," Dr. Morris A. Nalson del 15. Frances music; 5:30-6, daily reports; 7:8. Cale Bomierard orchestra; 8:8-10, Wall Street Journal revius; 9:10-8-35, Elety orcan rectal; 3:4-3, "Current Fonding Adhira-tant bits title. G. Redfield, 10:13-30, Many See Jesses and bits title.

Beter orban reettal: 3:43-9. "Current Forming AdaptaLine of Stribum C. Reideld, 10-12:59, Burfee Leest
WKAQ, San Junn, P. R. (344.7), 8-10 p. m., municipal
band.
WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., dally
almenas: Stanley theorer organ rectal; Arcadic serie
"Care of Children." Mrs. Mabel Love; 2:30, Arthur
Cronby, bartione; 7:39, Dream Daddy's bedtime
storless 3:30, Deleo plano quintet; 10, Arcadic serie
WMCA, New York, N. V. (341), 2:30-240, p. m., talk,
Airlin Silver company; 6:30-7:30. Ernie Gelden and
his Hotel McAlpin orderess: 8:15-6:25, falk, House
of Klealin; 5:15-30, Mandeltine Hintletze, sopram;
WNC, New York, N. V. (329), 7-130-9 p. m., rang
rectals; 7:35-7:50, talk, Mayor John F. Hylan; 7:56S, plano rectal; 8-30, nor rectal; 8-30-95; course
NOO, Philadelphia, Pa. (369.2.), 11 a. m., organ rectals,
Mary E. Vogi: 11:22 p. m., Gelden's tes room or
Candelori's concett orchestar; 3, concert from WEAE;
9, "Jupne" Troubsdoors; 10-30, organ recital, Mary E.
Vogi: 10:23 p. m., Then orchestar;
Harry Cox' Hotel Robots.

phone cosemble; 11-13, Caro's orderita.

Eastern Standard or Central Daylight
Saving Time Stations

CNRM, Montreal, Can. (411), 8:30 p. m., Harold Morris,
pianist; Harry Underwood, tenor; kaized Starkman,
contraito; Saul Brand, violinist; F. H. Rose, berliane;
Cladys Davis, soprano; clue, Harry Underwood, F. H.
Chardy Davis, conn. (435), 8 p. m. Clateau Laurier
concert orderita; Elear quartet; Mrs. John Johnstone,
pianist; tenor and bass duet, John Barron, Frank
Brown; Edythe Young, Violinist; seprana, contraito
(Continued on page 12)

WIP ANNUAL REVUE SATURDAY; VIC

Index to Popular Concerts

T ABULATED below is a time table of the stations giving popular eoncerts 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.

Central Standard Time Stations Saturday, May 23: 6:15, WFAA; 40, KTHS; 9, KFRU; 11, KFAB; :45, WDAF; 12, WLBL. Sunday, May 24: 9, WAMD; 11, 'BAP.

Sunday, May 24: 9, WAMD; 11, WBAP: Monday, May 25: 6:30, WFAA, 7:20, KPAB, WBAP: 8, KFRU, WOS; 8:30, KFAB; 9:30, WBAP; 10, WOI; 10:30, WOO, 11, WBAP; 11:45, WDAF. Tuesday, May 26: 6:30, WFAA, 9:46, WOAW: 10:30, KFRU; 11, KFAB, WINGHESSAY, May 27: 7:30, KFAB; 8, KFRU; 8:30, KFAB; 8, KFRU; 8:30, KFAB; 8, KFRU; 8:30, WFAA, 11, WFAA; 11:30, WFAA; 11:45, WDAF, Triday, May 26: 6:30, WFAA; 12, WFAA; 8, WDAF, WOK; 8:30, WHAD, WHO, WSMB: 10, KFVE: 11, KFRU, WHO, WSMB: 10, KFVE: 11, KFRU, WRO, STANGAR OF CENTRE DAY-

Eastern Standard or Central Day-

Eastern Standard or Central Daylight Saving Time Stations
Saturday, May 23: 8, WBBM,
WBCN, WLS, WMAQ, WMBB; 8:30,
WMBB: 9, WBBM, WBCN, WLS,
WTAM; 9:30, WBEH, WMBB; 10,
WBBM, WBCN, WKRC, WLS, WQJ;
10:30, WBEH, WGES, WJJD, WQJ,
10:30, WBBM, WBCN, WKRC, WLS,
KYW, WIS, WQJ; 12:30, WBBM,
WJJD; 1, WQJ;
Sunday, May 24: 7:20, WWJ; 8,
WBCN; 8:30, WBBM, WMBB; 9,
WBCN; 8:30, WBBM; 10, WBCN; 11,
WKRC; 12, WJJD; 1, WJJD.

WQJ. 26, WBUN, WQJ; 1, Friday May 29: 7, WGR; 7:15, WGY; 8, WBBM, WBCN, WAL, WGR; 10, KYW, WBBM, WEAR, WGR; 10, KYW, WBCN, WQJ; 10:30, WJJD; 11, KYW, WQJ; 11:30, WJJD; 12, KYW, WQJ; 12:30, WJJD; 1, WQJ.

Mountain Standard Time Stations

Monday, May 25: 8, KOA. Tuesday, May 26: 8, CNRR; 9, CNRR.

CNRR.
Wednesday, May 27: 8, KOA.
Thursday, May 28: 9, CNRC; 10,
CNRC.
Priday, May 29: 8, KOA.

Pacific Standard Time Stations

Saturday, May 23: 7:30, KHJ; 7:46, KFWB; 8, KFI, KHJ; 9, KFWB, KNX; 10, KFWB; 11, KHJ, KNX; 12, KNX. Sunday, May 24: 9, KFWB; 10, KFI, KFWB.

KFWB.

Monday, May 25: 6:30. KFWB: 8,
KFWB: 3, KFWB: 10, KFWB, KLX.

Tuesday, May 26: 7:45, KFWB; 8,
KFI, KHJ: 9, KFWB: 10, KFI,
KFWB, KNX; 11, KNX.

Wednesday, May 27: 7. KFWB; 7:45, KFWB; 8, KFWB; 8:30, KHJ; 9, KFI, KFWB, KNX; 9:30, KHJ; 10, KFI, KFWB.

Thursday, May 28: 7:45, KFWB; 8, KFI, KGO, KNX; 8:30, KFWB; 9, KFWB; 10:30, KJR; 11, KNX.

11, KNX. Friday, May 29: 7:45, KFWB, KHJ; 9, KFWB; 10, KFWB; 10:30, KGW; 12, KNX; 1, KNX.



KFRU. Bristow. Otta. (394.5), 8-10:30 p. m. enter-tainment.
KFUO. St. Louis, Ma. (345.1), 9:15 p. m., "The Bible and Moderntain." Dean Fritz., Tp. m., Radiocast review, Romaine Fielding: the Duke with the Ukan Construction. Harry S. Wylle; "Mother's Relief Construction. Harry S. S. Den, Linely crop taik, H. R. Summer; "Lowering Harrest Cost with Machinery. Claude K. Shodd. M. West End Life KS. Machinery. "Claude K. Shodd. M. West End Life KS. St. St. Shods. M. West End Life KS. St. St. Shods. M. West End Life KS. St. Shods. M. West End Life KS. Shods. M. West End Life KS.

orchestra. WBAR, Sisiht, Wis. (406), 8-9 p. m., high school glee

monicate: 7:308-239, concert: 9:308-10:35, Tewas Books WBAR, Sishh, Wis. (406), 8-9 p. m., high school gloe clob. WBAR, Sishh, Wis. (406), 8-9 p. m., high school gloe clob. WBAR, Sishh, Wis. (406), 8-9 p. m., high school gloe clob. WBAR, Sishh, Wish Sish WBAR, Sishh, WBAR, Sishh, WBAR, W

tra. WSMS, New Orleans, La. (349), 6:30-7:30 n. m., or-

Mountain Time Stations

nasembly program.

Mountain Time Stations

KFWA, Oaden, Utah (281), 4 p. m., Zeetith Radio hour;

8, childen's program; Radiob Siz dance ordinistra.

KOA, Desver, Cohn. (3224), 6:35 p. m., sandman's

18, childen's program; Radiob Siz dance ordinistra.

KOA, Desver, Cohn. (3224), 6:35 p. m., sandman's

18, program; Balden's Piano consequence of the control of the c

Hersid's hour of dance music; 9-18, Essentiuer: porter processes by Wampas club of more saves; 19-11. Patrick-Massh dance orchestra. Batty Patrick, colosia, KFOA, Sartitt, Wash. (454.3), 4-5.15, p. m., Olyrapic State, 19-11. Patrick-Massh dance orchestra. Batty Patrick, colosia, KFOA, Sartitt, Wash. (454.3), 4-5.15, p. m., Olyrapic State, 19-10. Patrick-Massh dance orchestra, 19-10. Patrick-Massh dance orches

School Company, Call. (398.2), o-7 p. fl., organ reddal; ballroom.

kNX. Hollwood Call. (398.9), 5-8-8-15 p. m., Wurlices pipe organ studio, Sid Zirle sorts talk; 6:15-16.

KNX. Hollwood Call. (398.9), 5-8-8-16.

KNX. Hollwood Call. (398.9), 5-8-8-16.

KNX. Hollwood Call. (398.9), 5-8-8-16.

KNX. Hollwood Call. (398.9), 1-8-8-16.

KNX. Law Call. (398.9), 1-8-8-16.

KNX. Law Call. (398.9), 1-8-8-16.

KNX. Law Call. (428.8), 1-2 p. m., Rudy Scient String Call. (398.9), 1-8-8-16.

KNX. Law Call. (428.8), 1-2 p. m., Rudy Scient String Call. (428.8), 1-8-16.

KNX. Law Call. (428.8), 1-8-16.

Thursday, May 28

Thursday, silent night for: CHIC, CHYC, CNRT, KFAB, KFAE, KFDM, KFMX, KFOA, KLX, KOA, KOB, KSD, PWX, WAHG, WBAV, WCEE, WEB, WEBW, WEMA, WHAD, WHAZ, WIAO, WIS, WRRG, WLBL, WOO, WS, WSG, WSUI, WTAM.

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving
Time Stations
CKAC. Mentreal, Can. (410-7), 4:45 n. m., cabaret pregram, Vindour ten room, 8:30, special
New York, W. (472-2), 8 p. m., Carl Park,
violinist; 8:10, Instrumental selections, Goorge Park,
violinist; 8:10, Instrumental selection, Instrumental selection,
violinistic Park,
violinisti

(Centre

(Centri Saturday, Wip: 8:39, Webh, Wiz; Wanea, Wed Wre: 10,00 Wang, Wa Wkre: 10,30, Wang, Wasi: 11:39, Wasi: 12, Kfl, Kg Knx; 12:05 Kfwb, Khi

Monday, I Whre, Witt, Wahg; 8:30, 8:45, Wiz; 9 9:15, Wer; 9 Wahg, Weco Kfoa; II, 11:45, Wd Kgo, Knx, Kiwb, Knx

Tuesday, i Wjar; 8:30, 9, Wazod, Wmca, Wot Wzbs; 9:5. Whn; 10:80, Krab, Who, Webh; 11:41 Kgo, Kgw, 12:05, Kfoa;

Wednesday.
Wahg, Whac
Wai; 8:30,
Wiz, Woo;
8:30, Whe;
10, Kil, V
Wtsm; 10:30
Webh; 11,
11:45, Wda
Khj, Kh, F
Kfwb,

Thursday,
Chuc, Weaf,
Wil, Wjar;
S:45, Weat
Weaf, Whn,
Wre; 9:15,
Whn; 10:80
Who, W m
Wdaf; 12,
Khj, Kpo:
1, Kfwb, Kn

Friday, 8
Wilt, Wwi;
Webb, Ways
8:45, Whg
Wisr, 10 io,
Wisr, 10 io,
Wilt; 10 io,
K(1, Whg,
11:45, Eg,
60ij; 1, Iv

Wednesday, May 27

(Continued from page 11)

luet, Mrs. J. D. Robertson, Mrs. J. Russell Pontifex; Chateau Laurier dance orchestra. KA. Pittsburgh, Pa. (309.1), 2:30 p. m., 3, 3:30, 4, 1:30, 5, 7, baseball scores; 3:15, address, University of Pittsburgh; 8:45, Drs. Slitz hoor of mude; 9:25,

KOKA Pittsburgh; 8:45. Dry Slitz hour of music; 9 an, of Pittsburgh; 8:45. Dry Slitz hour of music; 9 an, baschall scores.

KYW, Chleago, H. 1886, 6:33-6 n. m., Unde Bob's RyW, Chleago, H. 1886, 6:33-6 n. m., Under Bob's Bedlime story 18 an, 'Viversit Cleman; 7-8, music program, United Sanagogue of Armston; 9-12 a. m., retue; Paul Whitman; Collegians.

PWX. Havana, Cuba (400), 8:30-11 p. m., General staff band, Cuban army.

WBBM, Chleago, Hil. (225), 8-10 p. m., Maurice Siterman, tenor; Roseauxr Hughes, Josy Stool, Crillon ormans.

man, tenor; nossumar augusts, voy, percentrate, the state of the control of the c

and the Boss' own orchestra; Frank Morris, Eddie and Francie Cavanaugh, Colman Goetz. WCX, Detroit, Mich. (548.9), 4:15 p. m., musical pro-gram; 6, dinner concert, Book-Cadillac hotel; 7, man-

Funite Cavalantini, College Ossess.

WCX. Detroit. Mich. (316.3), 4:15 p. m., musical program; s. chuser concert, Book-Cadillac hotel; 7, nan-WEAR, Cleveland, Obis (389.4), 6:35-7:45 p. m., Iran Fundso) and his Hotel Clevel and orehastra.

WEAR, Cleveland, Obis (389.4), 6:35-7:45 p. m., Iran Fundso) and his Hotel Clevel and orehastra.

WEBH. Chromos H. Hotel Clevel and orehastra.

Determine the College of the Clevel and Ossess.

Lawellym Jones: Kay Romanes: Robert York; tenor; brass quartet; 0:30-10 3b. brass quartet; Original Clevel C

cones and target Herbie Mints, plemat; suns, venillarie.

[JD, Mosefhart, III. (302.3), 10-30 p. m., John Rankel, Alas Wand, Bennie Ray and Rudie Patek, Arthur Larniveth, Leolie Stow, Geneva organ, Charley KRG, Chiennatti, Ofic (329.) s. p. m., rocal and fastramental concert; 9, Cincinnati Public library course;

Lelis LeMarr, planist; 9:80, Bob Groenke, Jim

9:15. Letts LeMarr, planist; 9:20, Bob Groecks. Jus Mischler.
Wiss. Chicago, Ill. (344.6), 6:39 p. m., Rajoh Emerson, orsanist; 7:15. Glenn's Cornbucker; 7:45. bullady time, Ford and Glenn; B. Glenn's Cornbucker; 7:46. bullady time, Ford and Glenn; B. Glenn's Cornbucker; 10:30, Hargrow review; 11, Ford and Glenn time; 10:30, Hargrow review; 10, Ford and Glenn time; 10:30, Hargrow review; 10, Ford and Glenn time; 10:30, Hargrow review; 10, Ford and Glenn time; 10:30, Hargrow review; 10:30, Hargr

minal Committee of Railway cierts; waiter Eurorper, director will recommend the committee of the committee o

orchestra.

WORD. Batavia, III. (275), 8:30 p. m., byuns and sacred songs, prayer meeting comments, Occar A.

WORD. Balavia, III. (£/2), 6.30 p. m., 0.5 m. a. assored songs, peayer meeting comments, 0.5car A. (1850).
WQ., Chicapa, III. (447.5), 3.4 p. m., "Ready to Serve Mod.". Sharka Logan; 7-8. Ealph Wijilams and his Model." Martha Logan; 7-8. Ealph Wijilams and his Ratha Logan; T.-8. Ealph Wijilams and his Ratha Model. The Charletta Noin, violinita; Mary Three Model. The Charletta Noin, violinita; Mary Three Model. The Charletta Noin, violinita; Harthy and Johnson; Rundage and Krament; 1-2, Galber hour. W&CO, Lansing, Mich. (285.5), 10 p. m., (webcall re-ports.)

Nort. M. WAG. Clemen College. S. C. (336.9), 8 p. m. general farm saws; antmal husbander; 10-minute talk, entomology; 12-aza orchestra. W. (200), 7 p. m. Fred. Sanker's Tactsteel orchestes; 10. Coarters playing excl string

The distance of the state of th

sorres.
WWJ, Detroit, Mich. (352.7), 12.05 p. m., Jules Klein's
Hotel Statter orchestra; 3, Detroit News orchestra; 6,
dinner concert; 8, Detroit News orchestra; Anne Cambuil, Detroit News' poet; 9, Jean Goldkette's Victor
Recording orchestra.

Central Standard Time Stations

KFAS, Lincoln, Nebr. (240), 7:30-8:25 p. m., Gladys Young's orchestics; 8:15-9:36, Harriet Cruise, Ortole of the Air; Olive Fletcher, Commander-in-Chief of the Ivories.

CTOR HERBERT MEMORIAL AT WEAF



cert: 10:45. Jack Myers' Musical Arhiciects dance CING

cort; 10:45, Jack Myers' Missleal Arhitects dance or hestra.

WDWF, Providence, R. I. (440.9), 8:39-8 p. m., Narraganest Hotel concest or probestra.

WEAF, New York, N. Y. (491.8); 11:11-11.0, musical meteors of the concest of the

Pennsylvaria orchesia (FEI. Borton, Mass. (475.5), 2:30 p. m., French pnetry, Ernest Percin; 3:15, Noah'e Arkadian; 6:30, Big Brother elub; 7:35. Bagers hall nor of hospitality; 7:35, C. B. Collas, senor: 8, Now York musicale; 9, Avaster-Kent musicalo; 10, Godrich Silvertum Cord

attentioned transith WEALT Including Varley bour, Advantance musical program, Goodrich Silvertown Cord occhesian.

WHAR, Amnite City, N. J. (275), 7 p. m., Smartde WHAR, Amnite City, N. J. (275), 7 p. m., Smartde borne botel concert orchestra.

WHAN, New York, N. Y. (360), 12:39-1 p. m., organ recital, Low's Lectington theatter; 7-7:30, Silver Silver WH, Shand Shandar Chateau Shandar Sha

5.3%, Rose Morks, planist; Jaugeth Stribman, planist; Frances W. Hoover, planist; J. 200, Dream Daddy's bed-time statics. W. Woover, blanist; J. 200, Dream Daddy's bed-time statics. W. Woover, M. Y. (241), 3-5 g. m., popular with the planist of t

tional Stockmon and Farmer succes, 0.-22, account to the control of the control o

**Normal Company Compa

WCX. Detroit, Mich. (516.93), \$12.9 k. m., means arm; 6, dimer concert. Book-cadillate holei; 7, musical program. WEAR, Cleveland, Ohie (389.4), 7-9 p.m., program from WEAR, 19-15, dance moust. \$26.839 p.m., Ortole ortestars. Belle Forbes (2016.00), \$29.04 p.m., Ortole ortestar; Belle Forbes (2016.00), \$29.04 p.m., Ortole ortestars; Belle Forbes (2016.00), \$29.04 p.m., Ortole ortestars; Belle Forbes (2016.00), \$29.04 p.m., \$

11:39-1, Orlole orchestra: Belle Frives Cuttor, poptalo; Howard Numiller, accompanists, Benutal Ladon, violinist. Chicago, III. (370.2), 13:40-2:39 p. m. Drake mother ensemble. Blackstone sting quintes; 2:30, artists series, Lyon & Healy; 6:39-7:30. Drake concert ensemble. Blackstone string quinte; 3:30-3:30, studio program; 10:39-11:30, Drake botel Terrace Williams and Companies of the Compani

lele. Chicago, III. (344.6), 8:30 p. m., Ralph Empreson, anist; 7:15, Gleon's Cornhuskers'; 7:45, Iuliaby e, 8, WLS theator, E. Warren K. Howe's classical

tions, S. W.I.S Incaver, E. Warren R. Howes classical WM W.M. Monated, Ohio 622-23, 22-25; p. n., program, MM Phi Epision sorothy in French lessen, Madame Ind Technolick; plano resid. Adelande Apid: 7, dinarch lour concert: Biotel Gibara orchetta, Recent Viscoursager, From the Civil Service Department of the United States; 10:03, orchestra concert; 11, on-half hour with the composer, Richards; 10:30, proveity program, A. C. Todd, banjois; C. E. Hoden, suttar-selections, C. L. Wells, whither and instancy; organizations of the Computer of the Civil Service Description.

wall, Verlag, waster and initiator, of san WMAK. Lockport, N. Y. (285-5), 12 middlejkt, Murray, Whiteman's middlejkt serenacies.

WMAG, Chiege, III. (487-5), 4:35 m., household wall, waster and the san redstay of the san redstay [6:39, Hotel La Salle ornheatrs; 8, garden talk, James H. Burdett, 8:15, Boy Scout program; 3-50, jecture, University of Chicago; 6:15, Zanta critical san and sa

chestra.

WMBB. Chicage, Ill. (259), 7-8:30 p. m., program, J.

Bodowalt Lampe, director; Beatrice Teller and Trianon
ensemble; Woodlawn theater orchestra; solos; Carlos
Martini, Blis McFawn, Frank Sylvano; 8:39-103;
popular program, Dell Lampe, Trianon orchestra; Hazel

Cryue Haser, Festers. (275), 8:20 p. m. Rull Roddy Drown Schmanns; Virginia Ellin, Hanlet; Burdet Huen, rioliniari, Irene Johnson, accompania; Sunday school lesson, D. J. Morchouse.

Wolf, Chicago, Hl. (447,5), 3-4 p. m., "Proparing Various Festers," Helen Harrington Downlag; Sunday School, Chicago, H. (447,5), 3-4 p. m., "Proparing Various Green," Helen Harrington Downlag; Sunday School, Chicago, H. (447,5), 3-4 p. m., "Proparing Various Johnstone, violnist; Gipters Burch, accompanial; Fayer etc. Williams and his Italino Garden orchestra; Alice Johnstone, violnist; Gipters Burch, accompanial; Alice Johnstone, violnist; Gipters Burch, accompanial; Alice Johnstone, edigano, Azet Miller, baribone; 10-1, Rajoh Williams and his Halidoo Skylarky; Ila Shenusbrock, edigano, Azet School, 1-2, Ginger hour.

WHEO, Lansing, Mich. (285, 5), 815-94, p. m., the Macheson mikes (285, 5), 815-94, p. m., Chalmers ensuble, Anderson miked quariet from WEAF; 8. Auwater Kent Radio crists; 9, Silventown Cord or Market Radio 283, 484, 1815-115, p. m.,

Atwater bent radio stockers.

WTAM, Cleveland, Ohio (389.4), 18:15-1:15 p. m.,
Euclid music studio; 5-7, Hotel Statler concert orches-

WTAS, Elija, III, (302.9), 8-12 indiahth, WTAS orchestra; Frank Morris, Polly Willis, Eddie and Francis Cavanaugh, Coleman Gedes, 8, 5:45 n.m., baschall scores; 6, Emil Heimberger; Hotel Bond trid, WH, Detrick Hoth, (35.7), 12:36 p. m., batchall correspondent, on the content of the content

ler orchestra; 3, Detroit News orchestra; 6, dimer concert; 7, concert from New York.

Central Standard Time Stations

CNRW, Winnipse, Can. (384.4), 8.20 p. m., Alberta Manceau, Mrs. George Swan, sogranue; Ywonne Thibault, Mrs. Rene St. Marie, accompanies, Coorge bartone; A. B. Pellenz, Oscar Noth the Statione; A. B. Pellenz, Oscar Noth the Statione; A. B. Pellenz, Oscar Noth the Statione; Coorge Beacherini, accompanies, KfAG, Lincoln, Nebr. (240), 3-4 p. m., Elalio Symbiony orchestra, Kan. (275), 6:50 p. m., piano tuning-in number; 7, music; 7:15. The Traions of the Engliser R. O. T. C. Unit at Kanasa University. Lieut, H. J. Casey; 7:29, "Diophantos and His Albert, Company of the Coorge of t

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

KFRG, Bristav Jan. (1993), 1997, 199

and the property of the proper

Abbert der hier febre. P. Hollengen, S. Holl

the right tailor, arranged by Unel John; 10-11, Air. Hickman's Billmore hotel dance ordering. Earl Burt-Level. Reader. Billmore hotel dance ordering. Heal of the state of the

Friday, May 29

Friday, silent night for: CHNC, CHIC, CHYC, CKAC,
KFKU, KFKX, KFMG, KFMX, KGO, PWX, WBBR,
WBZ, WCBD, WEAD, WFF, WGBS, WGST,
WHAZ, WKAB, WKRC, WBLB, WLW, WMAK,
WOAI, WOI, WRC, WREO, WSAO, WSAI, WSUI,
WTAB.

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Mostreal, Can. (410.7), 145 p. m., Windsor hold tric; 4.30, Ho issues.

Station of the Station of t

Diedel; 10:10-10:30; W. Norbam Grossian; 10:30:10:30; Chestia. University in 10:31:10:30; Chestia. University in 10:31:10:31; Chestia. University in 10:31:10:31; Chestia. University in 10:31:31; Chestia. University in 10:31; Chestia. Uni

Webling of the Control of the Contro

WHM. New York, N. Y. (380), 120-7:25 p. m., health telts, Dr. Lundis; 3:1-3:10, 121-3:10 p. 121-3:10 p

Mer 28: 8, Weaz, Webh; Wesf, -Wiy, -Wes; 9:16, -Whn: 10, -Woaw; 11, Wijd; 11:30, i, Wdaf; 12, Khi, Kpo; 1, Kfwb.

d Time)
May 23: 8:05.
Rad. Kths.
9. Kti. Weaf.
Wre; 5:20.
Koa. Kpo.
m.d. Weco.
Rfoa. Webh;
v. 11. Kfab.
Woc. Wrc;
11:45. Wdaf:
0. Kgw, Khi.
1. Kfoa; 1.

d Time)

May 27: 8. i, Whn, Wilt, webh, Whn, 9, Wabg, Wqi, Wtam; 9:45. Who; vgr, Whn. khi, Weeo, wijd, Wtam; t; 12. Kfi. inx, Kpo; 1.

May 28: 8, Wear, Weet, 8:30, Webh; 9. Wand, Witz, Wdj., Winca; 10, Webh; 11, ak; 11:45, Kgo, Kgw.

An Evening at Home with the Listener In

INSTRUCTIONS FOR USE OF TABLES

INSTRUCTIONS FOR USE OF TABLES

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

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

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

Listeners using Bastern daylight saving time: Use Eastern time table by adding one hour to every figure given.

Listeners using Bastern daylight saving given.

Listeners using Central daylight saving time: Use Eastern time table by subtracting one hour former tables from the our receiver.

The material and form of the tables are entiriely original with Radio Digest and prosecuted.

Friday, May 29

(Continued from page 13)

Eastern Standard or Central Daylight

Eastern Standard or Central Daylight
Saving Time Stations

KDKA, Pittsburgh, Pp. (398.1), 250 p. m., 3, 350, 4, 436, 6, 7, baschall sowers, 813, University of Pittsburgh studie, 843, consent.

KYM. Chicago, III. (398), 525-6 p. m., Uncle Bob's, KYM. Chicago, III. (398.), 525-6 p. m., Uncle Bob's, KYM. Chicago, III. (298.), 125-6 p. m., rovue; Paul White-man's Collegians. in (293.7), 8 p. m., Memorial WBAV, Columbus, University Collegians. in (293.7), 8 p. m., Memorial WBBM, Chicago, III. (239.), 8-16 p. m., George Little, Larry Shay, Jimup Eggert, Ned Santry, Cott Banks, William getters.

WBBM, Unicago, III.

LAITY Siny, Jimup Egert, Ned Santry, Coit Banks,
LAITY Siny, Jimup Egert, Ned Santry, Coit Banks,
WBCN, Chicago, III. (266), 8-9 p. m., fireside hoor,
Gaorie R. (Greeland; 10-12, Big Boy Yacle, plansity
Pregr O'Neil, sopranc; Midway Dancing Gardens
Pregr O'Neil, sopranc; Midway Dancing Gardens
Wardman Park boyed Gardens
McAP, Washington, D. (c. (498.5), 7.30-11 p. m.,
talk; studio program; Wardman Park boyed dance
music.

sours.

110, Mosschart, HI. (392.0), 19:30 p. m. Tom Loftus,
Smuter Kentinger, Gladge Ercheman, Dave Nuddleman,
Generat Graner, Charley Straight's orbestaler.

U.S. Chicago, HI. (344.6), 6:30 p. m. Baloh Emercon,
organist, 1:15, Glenn's Cornbuggers', 7:45, Inilayo
tione, Ford and Glenn; 8, Cornbuggers', 7:45, Inilayo
tione, Ford and Glenn's, Cornbuggers', 7:45, Inilayo
tione, Ford and Glenn's, Cornbuggers', 7:45, Inilayo
tione, Ford and Glenn's, Cornbuggers', 7:45, Inilayo
tione, Ford and Clenn's, Cornbuggers', 7:45, Inilayo
tione, Ford and Clenn's, North Cornbuggers', 7:45, Inilayo
tione, Ford and Clenn's, North

Samman "quariet, 10:45, Nubs Allan; 11, Ford and Charles and Charl

Ceell Ward; Trianon symmutates; Werdiswn theater cyrbests. World State 11, 125, 5, 630 b. m., William BerWorld Bahwin; III, (25), 630 b. m., William Berbarttone; Dorn's Ameiscan, reader; Bible questions and answers; B. M. Edic.
W.J., Chienge, III, (447-31, 3-4 p. m., "Our First Plomin Heiter, Harmson Downing, "The Land, of the Committee o

politan club.
KFDM, Beaument, Texas (3|5.8), 12:30-I p. m., band

denfed, and such infringements will be prosecuted.

KFNF, Shenandoah, lowa (266), 7:30 n. m., concert from Villica, Mrs. Frances Statou, director, the villica, Mrs. Frances Statou, director, villica, Mrs. Frances Statou, director, villica, Mrs. Frances Statou, Mrs. Red. Mrs. Re

Mountain Time Stations

KFWA, Ogden, Utah (26t), 4 p. m., hook review;
Schoeroft & Sons company; 10, Becker Products of

Schoeroft & Sons company; 16. Becker Products company, pany, pany,

popular scionce course, Dr. D. S. Robbins; "Gradue Management on the National Forest Ranges," R. W. Hussey.

Pacific Standard Time Stations

KFAE, Pulman, Wash, (348.8), 7.39-9 p. m., Marguerite McLachtin, "Hollinist; Containee Grace", so-sisted the Marguerite Mar

				· .	(FOR P	ACIFIC	TIME)				_
Ē	Call	Met.	-8aturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Met.	Call
	AT9 CFCA	435 356.9	Silent Silent	3:00- 4:00 4:00- 5:00	Silent Silent	Silent 5:15- 6:15	Silent 5:15: 6:15	5:00- 7:55 5:15- 6:15	Silent Silent	435 356.9	AT9 CFCA
,	CFCN	434.5 356.9	9:00-11:00 Silent	Silent Silent	5:30~ 6:30	Silent Silent	Silent	7:00-8:00	Silent	434.5	CFCN
	CICA	516.9 410.7	8:00-10:00	6:30- 7:30 1:36- 2:30	6:30-8:30	6:30- 7:00 4:30- 9:30	5:00- 7:00	Silent 8:00-10:00	Silent 7:00-11:00	356.9 516.9	CHCN
1	CKAC CKY CNRA	384.4 319	4:30-9:30 Silent	5:00-6:45	Silent	5:30- 8:00	Silent	4:30 - 9:30 6:00 - 7:00	Silent 5:30 - 8:00	410.7 384.4	CKAC
	CNRO	434.5	Silent 4:30-9:30	Silent	Silent	4:30- 5:30 Slient	Silent 4:30- 9:30	Silent Silent	4:30- 5:39 Silent	313 434.5	CNRA
:	CYB	370 480	6:30- 7:00 Silent	Silent	Silent	8:00- 9:30	Silent	7:00- 9:00 Silent	8:00- 9:80	370 480	CYE
1	CYX KOKA	330 309.1	Silent 4:45-6:55	8ilent 12:00- 4:30	7:00-10:00 4:45-6:55	Silent 5:00- 9:30	Silent 4:45 - 6:55	Silent 4:15- 9:00	6:00 - 8:00 4:45 - 6:55	330 309.1	CYX
1	KFAB KFAE	240 348.6	9:00-10:30 Silent	2:00 - 3:00 Silent	5:30 - 8:00 7:30 - 9:00	Silent Silent	5:30 - 8:00 7:30 - 9:00	Silent Silent	5:30 - 8:00 7:30 - 9:00	240 348.6	KFAB
	KFAU KFDM	275	Silent Silent	Stlent	7:00- 8:00 Silent	Silent 6:00- 7:00	Silent Silent	Silent Silent	7:00- 8:00 8:00- 7:00	275 315.6	KFAU
1	KFI KFKU	467 275	6:45-11:00 Silent	4:00-11:00 Silept	6:45-12:00 4:50- 6:45	6:45-12:00 Ellent	6:45-12:00 Silent	6:45-11:00 4:50- 6:45	6:45-12:00 Silent	467 275	KFI
	KFKX	288.3	Silent	Bilent	7:30- 9:00	8ilent 7:00- 8:00	Silent	7:30- 9:00 5:30- 6:30	Silent	288.3	KFKX
ĺ	KFMX	336.9	Silent Sileni	5:00- 6:00 4:30- 7:80	Silent Silent 5:30-6:30	.8:00- 9:00	Silent 7:00- 8:00	Silent	Silent Silent 5:30-6:30	299.8 336.9	KFMX
;	KFNF KFOA KFRU	266 454.3 394.5	5:30- 6:30 6:00-11:30	Stlent 3:00- 5:00	6:00-10:00	Silent 6:00-11:30	5:30-6:30 6:00-10:00	5:30- 6:30 Silent 8:30- 9:30	8:00-11:30	266 454.3	KFOA
1	KFU0 KFWB	545.1	5:30-10:00 Silent	7:15- 8:15 9:00-11:00	5:00- 8:30 Silent 6:30- 1:00	8:30-10:00 Silent	6:00- 8:30 7:15- 8:15	Silent	9:00-11:00 Silent	394.5 545.1	KFUO
٠	KGO	361.2 491.5	7:45-12:00 8:00-1:00	3:30- 9:00 6:00- 8:00	8:00- 1:00 6:00- 7:00	7:45- 1:00 8:00- 1:00	7:45-1:00 Silent	7:45- 1:00 8:00- 1:00 8:00-12:00	7:45- 1:00 Silent 9:00-12:30	252 361.2	KFWB KG0
ı	KHJ	405.2	6:00-10:00 6:00- 2:00	6:30-10:00	8:00-10:00	8:00-12:00 6:00-11:00	8:00-12:00 6:00-11:00	6:00-11:00	6:00-11:00	491.5 405.2	KEW
1	KIAF KJR	421 384.4	Silent Silent	2:00- 3:00 7:00- 8:00	7:00-8:90 6:00-10:00	Silent	7:00-8:00 8:30-10:00	\$11ent 10:30-12:00	7:00- 8:00 8:30-10:00	42 J 384.4	KIAF K)R
:	KLX KI8	298.9 508.2	Silent Silent	7:15- 9:30 Silent	8:00-11:00	8:00- 9:00 Silent	Silent 6:00-11:80	8:00- 9:00 Silent	Silent 6:00-10:30	293.9 508.2	KJS KLX
ļ	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 Stlent	6:30- 2:00 7:00- 8:00	336.9 322.4	KNX KOA
9	KOB KPO	348.6 428.3	Silent 6:25-12:00	Silent 6:30-10:00	6:30-7:30 6:30-11:00	Silent 6:30-11:00	8ilent 6:30-11:00	Silent 6:30-11:00	6:30-7:30 7:00-11:00	348.6 428.3	KOB KPO
1	KSD KSL	545.1 261	5:00- 7:80 7:00- 9:00	Silent 8:00- 9:00	5:30- 8:00 7:00- 8:00	4:00- 9:00 8:00- 0:00	5:00- 6:00 7:00- 8:00	Silent 7:00~ 8:00	6:30- 8:00 8:00- 9:00	545.1 281	KSD KSL
Ē,	KTHS	374.8 455	6:30- 7:45 Silent	6:30- 9:30 7:00- 9:30	6:30- 9:00 Slient	6:30- 8:45 Silent	6:30~ 8:45 Silent	6:30- 8:45 Silent	6:30- 8;45 Silent	374.8 455	KTHS
;	NAA PWX	535.4 434.5	4:00-19:30 Silent		8Hent 4:45- 5:00	4:00- 8:30 4:45- 5:00	4:00-10:30 4:25- 5:40	4:00- 8:30 4:45- 5:00	4:00-10:30 4:45- 5:00	535.4 434.5	KYW
	WABL	400 275	5:30- 8:00 Silent	Silent	Silent 4:00- 6:00	Silent	5:30- 8:00 4:00- 6:00	Silent Sileut	Silent 4:00-8:00	400 275	PWX WABL
	WABN	315.6	Silent 9:00-11:00	Silent Silent	7:00-10:00 4:00-10:00	Silent	Stlent 3:30- 8:00	7:00-10:00 Slient	Silent 4:00- 7:30	244 315.6	WABN
	WAMD	475.9	8:00- 9:00 5:00- 6:00	12:00- 8:00 0:00-10:00	51lent 5:30-11:00	8:00- 9:00 5:30- 8:45	8:90- 9:30 5:30- 8:45	8:00- 9:30 5:80- 8:45	8:00- 9:00 5:30- 8:45	243.8 475.9	WAMD
	WBAR	406 293.9	Silent Silent	8:00- 9:00 Silent	7:00- 8:00 5:00- 7:00	Silent Silent	6:00- 7:00 Silent	5:30- 5:30 Silent	Stient 5:00- 6:00	406 293.9	WBAR WBAV
	WBBG WBBM	248 226	Silent 5:00-10:00	Silent 1:00- 7:00	5:00- 7:00 Silent	Silent 5:00- 9:00	5:00~ 6:00 5:00+ 7:00	Silent 5:00- 9:00	4:00-11:00 5:00- 7:00	248 226	WBBG
:	WBBR	272.6 266	4:00- 4;45 6:00-10:00	5:00- 6:05 2:00- 9:00	4:00- 4:50 Silent	Silent 6:00-12:00	Silent 5:00- 9:00	4:00- 4:50 6:00-11:00	Silent 6:50-10:00	272.6 266	WBBR
	WBZ WCAE	333.3 461.3	3:30 - 5:55 4:00 - 5:80	3:00- 6:00 Silent	3:30- 5:55 4:30- 8:00	3:30 · 5:55 4:30 · 7:00	3:30- 7:05 4:30- 7:80	3:30 - 8:45 4:00 - 7:00	Silent 4:30-5:30	333.9 461.3	WBZ
	WCAL	336.9 468.5	10:00-11:00 S(lent	6:30- 8:00 1:00- 7:00	9:00-10:00	Silent Silent	Silent 3:00- 9:00	7:00- 8:00 Silent	6:80- 7:00 4:30- 3:00	336.9 468.5	WCAL
	WCBD	278 344.6	Silent	1:00- 3:00 6:00- 7:00	Silent 5:00-7:30	3:20- 7:30 Silent	3:00- 7:10 Silent	3:00- 7:45 5:00- 7:30	3:30- 6:40 Silent	278 344.6	WCAU
	WCC0	416.4 516.9	6:00- 9:00 Stlent	5:45- 8:15 Silent	4:00 - 9:00 3:00 - 6:30	4:00 · 7:00 3:00 - 8:00	4:00- 9:30 3:00- 6:30	4:00- 8:00 Silunt	4:00-10:00 3:00- 8:00	416.4	WCCD
	WDAF	365.6 440.9	4:00-11:00 Silent	2:00- 3:30 1:00- 2:45	4:00-11:00 Silent	4:00-11:00 4:30-5:30	4:00-11:00 Silent	4:00-11:00 Silent	4:00-11:00	365.6 440.9	WDAF
1	WEAF WEAO	491.5 293.9	2:00- 8:00 Silent	3:20 - 6:15 Silent	2:06 · 7:30 Silent	2:00- 8:00 Silent	2:00- 8:00 5:00- 6:00	2:00- 8:00 5:00- 6:00	2:00- 8:00 Silent	491.5	WEAF
	WEAR WEBH	389.4 370.2	Silent 4:30- 9:30	6:00- 7:00 4:00- 6:00	4:00- 5:00 Bilent	4:00 - 8:00 4:30 - 9:30	3:45- 4:45 4:30- 9:30	4:00- 8:00 4:30- 9:30	4:00 - 8:00 4:30 - 9:30	389.4 370.2	WEAR WEBH
١	MEBM	233 268	Silent Silent	Sitent 2:25- 8:30	Silent 6:30- 7:45	4:00- 5:00 6:30- 7:45	3:00- 5:00 Silent	Silent Silent	4:00- 5:00 Silent	233 268	WEBU
ł	WEE1 WEMC	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 Stient	4:00- 7:00 6:15- 7:15	4:00- 7:00 Silent	4:00- 7:00	475.9 285.5	WEEI
:	WFAA WFBH	475.9 272.6	6:30-10:00 3:00- 9:00	1:00- 9:00 1:00- 8:30	4:30-7:30 7:30-9:30	4:30-10:00 7:30- 9:00	Silent 3:00- 9:30	4:30-10:00 8:00- 8:30	4:30- 7:30 7:80- 9:80	475.9 272.6	WEMC WFAA WFBH
	WFI WGBS	394.5 315.6	4:00 - 7:00 4:30 - 8:00	Silent Sileut	Silent Silent	4:00- 6:00 5:00- 8:00	Silent	4:00-7:00 5:00-7:45	Silent Silent	394.5 315.6	WEI
١	WGES	250 370.2	7:30-11:30 3:30- 8:30	7:30- 9:00 6:00- 7:00	Silent Silent	7:30-11:80 3:30- 8:30	7:30-11:30 3:30- 8:30	7:30-11:30 9:30- 8:30	7:30-11:30 3:30- 8:30	250 370.2	WGES
١	WGR WGST WGY	319 270 379.5	Silent Silent	3:15- 4:30 Silent	4:30- 7:30 7:00- 8:00	4:00- 7:00 Stlent	4:00- 7:00 Silent	4:00 - 7:00 5:00 - 6:00	4:45- 7:00 Silent	3(9 270	WGR WOST
ĺ	WHA	535.4	6:30- 9:00 Silent	5:30- 8:00 Stlent	3:30- 5:30 5:45- 6:45	4:30- 9:30 Silent	7:00- 8:00	4:30- 9:30 Silent	4:30- 8:30 5:45- 6:45	379.5 535.4	WHA
1	WHAD WHAS WHAZ	275 399.8 379.5	Silent 5:30-7:00	Silent 2:00- 3:06	4:00- 8:00 Silent	5:30 - 7:30	4:00-10:80 5:30- 7:00	4:00- 8:00 5:30- 7:00	4:00- 8:00 5:30- 7:00	275 399.8	WHAD
1	WHB WHK	365.6 273	Sílent Sílent	Stlent 6:00-11:00	6:00- 8:00 5:00- 6:00	Silent Silent	Silent 5:00- 6:00	Silent 6:00-8:30	Silent 5:00- 6:00	379.5 365.6	WHAZ
ĺ	WHN	361.2 526	3:00-10:30 Silent	4:30- 8:00 6:15- 7:15 2:00- 7:00	Silent 3:00-8:00	Silent 6:00- 8:30	S[lent 4:45- 8:30	3:00- 8:30 4:00- 9:00	8:88- 7:88 5:30- 8:30	273 361.2	WHK
	WHT	238 508.2	811ent 3:00- 9:00 4:00- 8:05	12:00- 7:00 12:00- 9:00 Blient	5:30-10:00 3:00- 9:00	5:30-10:00 3:00- 9:00 4:00- 9:00	4:80- 9:00 8:00- 9:00	5:30-10:00 3:00- 9:00	5:30-10:00 3:00- 9:00	526 238	WHO
1	WJAR	305.9	Silent	3:20- 6:15	Silent 4:00- 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	WIAB
	ATA OTIA SVIA	275.3 302.8 405.2	Stient 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
	WIZ WIZ	405.2 454.3 340.7	Stient 4:00- 7:30	Silent 4:45- 5:45	Silent 4:00- 7:45	5:15- 6:45 4:00- 6:30	Silent 4:00- 7:30	4:30- 5:00 4:00- 7:30	3:30- 5:36 4:00- 7:30	405.2 454.3	WJY
1	WKAR	285.5 422.3	9:30-11:00 7:00-11:00	4:00- 6:00 Stlent 3:45- 9:00	Silent Silent 5:00- 7:00	Silent Silent	4:00- 6:00 5:00- 6:15	4:30- 6:00 Silent	Silent	340.7 285.5	WKAQ
	WLBL	278 394.5	9:59-10:59 Stlent	Silent	Silent 4:00- 7:00	7:00-11:00 6:00- 7:00	5:00- 7:00 Silent	5:00- 7:00 Silent	Silent Silent	422.3 278	WKRC
	WLS WLW	344.6 422.3	4:45-10:00 3:00- 5:00	4:30 - 5:55 3:30 - 5:30	Silent 6:00- 8:00	Silept 4:00-10:00 4:00- 6:00	3:30- 7:00 4:00- 8:30 3:00- 7:00	Stieni 4:00- 5:55 6:00- 8:00	8:80- 9:00 4:00- 8:30	394.5 344.6 422.3	WLIT
ı		265.5 447.5	Silent	Silent	5:00- 6:00	Silent	Silent	7:00- 8:30	Silent	265.5	WMAK
١	WMBB	250	4:00 - 8:00 4:30 - 7:30 8:30 - 7:30	Silent 4:00- 7:30 Silent	Silent Silent 6:30- 7:30	4:00- 8:00 4:30- 7:30 6:30-10:00	4:00 - 8:00 4:30 - 7:30	4:00- 8:00 4:30- 7:30	4:00 · 8:00 4:30 - 7:30	447.5 250	WMAQ WM8B
l	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 3:30- 6:20	Silent 3:00- 7:00	6:30- 7:30 5:00- 7:00	6:30-10:00 3:00-7:00	499.7 280.2	WNAC
l	WOAI WOAW	394.5 526	Silent 4:00-10:15	5:30- 8:30 4:00- 8:00	Silent 4:00- 9:00	6:30- 8:30 4:00- 9:00	8:30-6:30 Silent Silent	Silent 7:30 - 8:30 4:00 - 9:00	3:30-6:20 Silent	526 394.5 526	WNYC
١	WOAX WOC	240 483.6	5!leut 4:30-10:00	Silent 6:00- 9:30	Silent Silent	6:I5- 8:00 4:30- 7:00	Silent 4:30- 8:00	Silent 4:00-19:00	4:00- 9:00 6:00- 8:00	240 483.6	WOAW
١	WOO	508.2	Silent	8ilent 2:05- 4:30	00:11-00:8	Silént	Silent	6:15-7:15	4:30- 8:00 Stjent	270	Woc
	WOR WORD	405.2 275	Silent Silent 5:00- 6:30	Silent 3:45- 5:60	4:00 - 7:30 2:15 - 7:00 4:00 - 6:00	Silent Silent 5:00- 7:00	4:00- 7:30 2:15- 6:45	Slient Slient	4:15 • 7:30 Silent	508.2 405.2	WOR
ĺ	WOS WPG	440.9 299.8	Silent 3:00- 8:00	5:30- 6:30 5:00- 7:00	6:00- 8:00 3:00- 7:30	Silent 3:00- 7:00	5:00- 6:00 6:00- 8:00 Silent	5:00- 7:00 Silent	5:00- 7:00 6:00- 8:00	275 440.9	WORD WOS
	WQJ Wrbc	447.5 278	4:00-12:00 Silent	4:00 - 7:00 5:30 - 6:30	Silent 5:30-6:30	4:00-11:90 Silent	4:00~11:00 Elleut	8:00- 8:15 4:00-11:00	5:00 - 6:00 4:00-11:00	299.8 447.5	WPG WQJ
	WRC WREO	468.5 285.5	3:45- 9:00 Silent	81lent 4:20- 5:30	Silent Silent	3:45- 9:00 5:15- 6:45	Silent	Sileni 3:45- 9:00 5:15- 6:45	Silent Silent	278 468.5 285.5	WRBC
1	WRW	273 336.9	6:00 - 8:30 Silent	5:00- 8:30 Silent	6:00-8:30	6:00- 8:39	6:00-8:30	6:00- 8:30	Silent 6:00- 8:30	273	₩RE0 ₩RW
	WSA1 WSB	325.9 428.3	5:00-10:30 6:00-10:00	Silent 5:30- 7:15	Silent 7:00- 9:00 6:00-10:00	8ilent 4:00-7:00 6:00-10:00	5:00- 6:00 7:00- 9:00	Silent 4:00-6:00	Silent	336.9 325.9	WSAC
1	WSMB WSUI	319 483.6	4:30- 8:30 Silent	Silent 5:00- 8:00	Silent 5:30- 7:00	6:00-10:00 4:30- 8:30 Silent	8:45-10:00 4:30- 8:80 5:30- 7:00	6:00-10:00 Stlent	6:00-10:00 4:30- 8:30	428.3 319	WSB WSMB
	WTAM. WTAS	389.4 302.8	3:00-9:00 5:00-7:30	Silent 5:00- 9:00	3:00- 9:00 5:00- 7:30	5:00- 7:30	3:00-10:00 5:00- 7:30	Silent Silent 5:00-10:00	Silent Silent 5:00- 7:30	483.6 389.4	WTAM
	WTIC	348.6 352.7	Silent Silent	Silent 4:20-7:15	Silent 3:00- 6:00	4:00- 6:00 8:00- 8:00	Stient Silent	Sillent 3:00-10:00	4:00- 6:00	302.8 348.6 352.7	WTAS
1	_	_							0.00- 7:001	246.5	WWJ

An Evening at Home with the Listener In

	(FOR CENTRAL TIME)				(Tabular form and listings copyrighted. Reproduction is forbidden.) (FOR EASTERN TIME Or Cities Using Central))								
Call	Saturday	Sunday '	Monday	Tuesday	Wednesday	Thursday	Friday	Call	Location	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call
CFCA	Silent Slient 11:00- 1:00	5:00- 6:00 6:00- 7:00 Silent	Silent Silent Silent	Silent 7:15- 8:15 Silent	Sileni 7:15- 8:15 Silent	7:00- 8:55 7:15- 8:15 9:00-10:00	Silent Silent Silent	CFCA CFCN	Toronto, Ont	435 356.9 434.5	Silent Silent 12:00- 2:00	6:00 - 7:00 7:00 - 8:00 Silent	Silent Silent Silent	Silent 8:15- 9:15 Silent	Silent 8:15- 9:15 Silent	8:00-9:55 8:15-9:15 10:00-11:00	Silent Silent Silent	CFCA CFCN
CFCN CHNC CICA	Bilent 10:00-12:00	Silent 8:30- 9:30	7:80- 8:30 8:30-10:30	Silent 8:30- 9:00	Silent 7:00- 9:00	Silent 10:00-32:00	Silent 9:30-12:00	CHNC	Terente, Ont	356.9 516.9	Silent 11:00- 1:00	S1(*nt 9:30-1\:30	8:30-0:30 9:30-11:30	Silent 9:30-10:00	Silent 8:00-10:00	Silent 11:00- 1:00	Bllent 10:30- 1:00	CHNC
CKAC	6:80-11:30 Silent	3:30- 4:30 7:00- 8:45	Silent Silent	6:30-11:30 7:30-10:00 6:30- 7:30	Silent Silent	6:30-11:30 8:00- 9:00 Silent	Silent 7:30-10:00 6:30- 7:30		Montreal, Que	410.7 384.4 313	7:30-12:30 Silent	4:30 - 5:30 8:00 - 9:45	Silent	7:30-12:30 8:30-11:00	Slient	7:30-12:30 9:00-10:00	Silent 8:30-11:00	CKAC
CNRA CNRO CYB	6:30-11:30 8:30- 9:00	Silent Silent	Silent Silent Silent	Silent 8:30- 9:00	Silent 0:30-11:30 Silent	9:00-11:00	Stient	CNRO	Ottawa, Ont	434.5 370	Silent 7:30-12:30 9:30-10:00	Silent Silent Silent	Silent Silent Silent	7:30-8:30 Silent 9:30-10:00	Silent 7;30-12;30 Slient	Silont Silent 10:00-12:00	7:30- 8:30 Silent Silent	CNRA CNRO CYB
CYL	Silent' Silent	Silent	Silent 9:00-12:00	10:00-11:30 Silent	Silent	Silent		CYL	Mexico City, Mex	480	Silent Silent	Silent	Sitent 10:00- 1:00	11:00-12:30 Silent	Silent	Silent	11:00-12:30	CYL
KDKA	6:45- 8:55 11:00-12:30	2:00- 8:30 4:00- 5:00	6:45- 8:55 7:30-10:00	7:00-11:30 Silent	6:45- 8:55 7:30-10:00	6:15-21:00 Silent	6:45- 8:55 7:80- 9:30	KFAB	Pittsburgh, Pa Lincoln, Nebr	309.1 240	7:45- 9:55 12:00- 1:30	3:00- 7:30 5:00- 6:00	7:45- 9:55 8:30-11:00	8:00-12:30 Stient	7:45 - 9:55 9:30-11:00	7:15-12:00 Silent	7:45-9:55 8:30-10:30	KOKA KFAB
KFAE KFAU	Silent Silent Silent	Silent Silent Silent	9:30-11:00 9:00-10:00 Silent	Silent Silent 8:00 - 9:00	9:30-11:00 Silent Silent	Silent Silent Silent	9:80-19:30 9:00-10:00 8:00- 9:00	KFAU	Pullman, Wash Boise, Idaho Beaument, Texas	348.6 275 315.6	Silent Silent Silent	Silent Silent Silent	10:30-12:00 10:00-11:00 Silent	Sitent Sitent 9:00-10:00	10:30-12:00 Silent Silent	Silent Silent Silent	10:30-12:00 10:06-11:00	KFAE KFAU KFOM
KFDM KFI KFKU	8:45- 1:00 Silent	6:00- 1:00 Silent	8:45- 2:08 6:50- 8:45	8:45- 2:00 Silent	8:45- 2:00 Silent	8:45- 1:00 6:50- 8:45	8:45- 2:00 Silent	KF1 KFKU	Les Angeles, Calif Lawrence, Kan	467 275	0:45- 2:00 Silent	7:00- 2:00 Silent	9:45- 3:00 7:50- 9:45	9:45- 3:00 Silent	9:45- 3:00 Stient	9:45- 2:00 7:50- 9:45	9:00-10:00 9:45- 3:00 Silent	KFKU
KFKX	Blleat	Silent	9:30-11:00 Silent	9:00-10:00 10:00-11:00	Silent	9:30-11:00 7:30- 8:30	Silent	KFKX	Fayetteville, Ark,	288.3 299.8	Silent Silent	Silent	Silent	Silent 10:00-11:00	Silent Silent	3:30-12:00 3:30-9:30	Silent	KFKX
KEMX	5Hent 7:30- 8:30 8:00- 1:30	7:00- 8:00 6:30- 9:30 Silent	Silent 7:30- 8:30 8:00-12:00	Silent 8:00-1:30	9:00-30:00 7:30-8:30 8:00-12:00	Silent 7:30- 8:30 Silent	Silent 7:30- 8:30 8:30- 1:30	KFMX	Shenandeah, Ia Seattle, Wash	336.9 266 454.3	811ent 8:30- 9:30 9:00- 2:30	8:00- 9:00 7:30-10:30 Silent	Silent, 8:30- 9:30 9:00- 2:00	11:00-12:00 Silent	8:30-9:30	Sitent 8:30- 9:30	Silent 8:30- 9:30	KFMX KFNF KFOA
KFOA KFRU KFUO	7:30-12:00 Silent	5:00- 7:00 9:15-10:15	7:00-10:30 Silent	10:30-12:00 Silent	8:00-10:30 9:15-10:15	10:30-11:30 Silent	11:00- 1:00 Silent	KFRU	Bristow, Okla	394.5 545.1	8:30- 1:00 Stient	6:00- 8:00 10:15-11:15	8:00-11:30 Silent	9:00- 2:30 11:30-1:00 Silent	9:00-2:00 9:00-11:30 10:15-11:15	Silent 11:30-12:30 Silent	9:00- 2:30 12:00- 2:00 Silent	KFRU
KFWB KOO	9:45- 2:00 10:00- 8:00	11:00 - 1:00 5:30-11:00 8:00-10:00	9:30- 8:00 10:00- 3:00 8:00- 9:00	9:45- 3:00 10:00- 3:00 10:00- 2:00	9:45- 3:00 Silent 10:00- 2:00	9:45- 8:00 18:00- 3:00 10:00- 2:00	9:45- 3:00 Silent 11:00- 2:30	KGO	Hollywood, Calif Oakland, Calif Portland, Ore	252 361.2 491.5	10:45- 3:00 11:90- 4:00 9:00- 1:00	12:00 - 2:00 6:30-12:00 9:00-11:00	10:30- 4:00 11:00- 4:00	10:45- 4:00 11:00- 4:00	10:45- 4:00 Silent	10:45- 4:00 11:00- 4:00	10:45- 4:00 Silent	KFWB K00
KHI	8:00-12:00 8:00-4:00	8:30-12:00	9:00-10:00	8:00- 1:00 Silent	9:00-10:00	8:00- 1:00 Stlent	3:00 · 1:00 9:00-10:00	KHJ	Les Angeles, Calif	405.2	9:00- 5:90 Silent	9:80- 1:00	9:00-10:00 11:00-1:00 8:00-9:00	11:00- 3:00 9:00- 2:00	11:00 - 3:00 9:00 - 2:00	9:00- 2:00	9:00- 2:00	KIAF
KIAF KJR KJS	Silent Silent Silent	9:00-10:00	8:00-12:00 Silent	Silent 10:00-11:00	10:30-12:00 Stlent	10:00-11:00		KJR KJS	Sintipok, Minn Seattle, Wash Los Angeles, Calif	384.4	Silent Silent	10:00-11:00 10:15-12:30	9:00- 1:00 Silent	Silent Silent 11:00-12:00	8:00 - 9:00 11:30 - 1:00 Silent	Silent 1:30-3:90 11:00-12:00	8:00- 9:00 11:30- 1:00 Silent	KJS
KLX KNX ·	Silent 8:30- 4:00	Silent 7:00-1:00	8:00- 1:00 8:30- 2:00	Silent 8:30 - 2:00 Silent	8:00-1:30 9:00-2:00 9:00-1:00	8:30- 2:00 Silent	8:00-12:30 8:30-4:00		Oakland, Calif Hollywood, Calif	508.2 336.9	Silent 9:30- 5:00 11:00- 2:00	Silent 8:00- 2:00	9:00- 2:00 9:30- 3:00	Sitent 9:30- 3:90	9:00- 2:30 10:00- 3:00	Silent 9:30- 3:00	9:00- 1:30 9:30- 5:00	KNX
KOA KOB	10:00- 1:00 Sllent 8:25- 2:00	5:30- 9:30 Silent 8:30-12:00	9:00-10:30 8:30- 9:30 8:30- 1:00	Silent 8:30- 1:00	Silent 8:30- 1:00	Silent 8:30- 1:00	9:00-10:60 8:30- 9:30 9:00- 1:00	KOA KOB KPO	State College, N. M San Francisco, Calif	322.4 348.6 428.3	Silent 9:25- 8:00	6:30-10:30 Silent 9:30- 1:00	9:30-10:30 9:30-2:30	Silent Silent 9:30- 2:00	10:00- 2:00 Silent 9:30- 2:00	Silent Silent 9:30-2:00	9:30-10:30 10:00- 2:00	KOA KOB KPO
KPD KSL	7:00-9:30 9:00-11:00	Stlent 10:00-11:00	7:30-11:00 9:00-10:00	6:00-11:00 10:00-11:00	7:00-8:00 9:00-10:00	Stlent 9:00-10:00	7:39-10:00 10:00-11:00	KSD .	St. Louis, Mo Salt Lake City, Utah	545.1 261	8:00-10:30 10:00-12:00	Sijent 11:00-12:00	8:30-12:00 10:00-11:00	7:00-12:00 11:00-12:00	8:00-9:00 10:00-11:00	Silent 10:00-11:00	8:30-11:00 11:00-12:00	KSD KSL
KTW	8:30 - 9:45 Silent	8:30-11:30 9:00-11:30	8:30-11:00 Bllent	8:30-10:45 Silent	8:30-10:45 Silent	8:30-10:45 Silent	8:30-10:45 Silent	KTW	Hot Springs, Ark Seattle, Wash	374.8 455	9:30-10:45 Silent	9:30-12:30 10:00-12:30	9:30-12:00 Silent	9:30-11:45 Silent	9:30-11:45 Stlent	9:30-11:45 Silent	9:30-11:45 Stlent	KTHS
NAA	6:00-12:30 Stlent	3:00- 7:00 Silent Silent	Silent 6:45- 7:00 Silent	6:00-10:30 6:45- 7:00 Silent	6:00-12:30 6:25- 7:40 7:30-10:00	6:00-10:30 6:45- 7:00 Silent	6:00-12:30 6:45- 7:00 Silent	NAA PWX	Chicage, III	535.4 434.5 400	7:00- 1:30 Silent 8:30-11:00	i:00- 8:00 Silent Silent	Silent 7:45- 8:00 Silent	7:00 - 11:30 7:45 - 8:00 Stlent	7:00- 1:30 7:25- 8:40 8:30-11:00	7:00- 11:30 7:45- 8:00	7:00- 1:30 7:45- 8:00	NAA PWX
PWX WABL WABN	7:30-10:00 Silent Silent	Silent Silent	Silent 8:00- 8:00 9:00-12:00	Silent Silent	8:00- 8:00 Silent	Silent 9:00-12:00	6:00- 8:00 Silent	WABL	Storrs, ConnLa Crosse, Wls	275 244	Silent \	Silent	7:00- 9:00 10:00- 1:00	Bilent Silent	7:00- 9:00 Silent	Silent Silent 10:00- 1:00	Sileni 7:00- 9:00 Sileni	WABL
WAHO	11:00- 1:00 10:00-11:00	Silent 2:00-10:00 11:00-12:00	6:00-12:00 Silent 7:30-1:00	Silent 10:00-11:00 7:30-10:45	5:30-10:00 10:00-11:30 7:30-10:45	Silent 10:00-11:30 7:30-10:45	6:90-9:30 10:00-11:00 7:30-10:45	WAMD	Richmond, N. Y	315.6 243.8 475.9	12:00- 2:00 11:00-12:00 8:00- 9:00	Silent 3:09-11:00 12:00- 1:00	7:00-1:00 Silent 8:30-2:00	Silent 11:00-12:00 8:30-11:45	6:30-11:00 11:00-12:30 8:30-11:45	Silent 11:00-12:30 8:30-11:45	7:00-10:30 12:00-12:00 8:30-11:45	WAHO WAMD WBAP
WBAP WBAR WBAV	7:00- 8:00 Slient Silent	10:00-11:00 SHent	9:00-10:00 7:00- 0:00	Silent	8:00- 9:00 Ellent	7:30- 8:30 Silent	Stlent 7:00- 8:00	WBAR	Sisint, Wis	406 293.9	Silent Silent	11:00-12:00 Silent	10:00-11:00 8:00-10:00	Silent	9:00-10:00 Silent	8:30-11:45 8:30- 9:30 Silent	8:30-11:45 Silent 8:00- 9:00	WBAH
WBBG WBBM	Silent 7:00-12:00	Sifent 3:00- 9:00	7:00- 9:00 Silent	Silent 7:00-11:00	7:00- 8:00 7:00- 9:00	Silent 7:00-11:00	6:00- 1:00 7:00- 9:00	WBBG WBBM	Mattapelsett, Mass Chicago, III	248 226	Silent 8:00- 1:00	Silent 4:00-10:00	8:00-10:00 Silent	Silent 8:00-12:00	8:00 - 9:00 8:00-10:00	Silent 8:00-12:00	7:00 - 2:00 8:00-10:00	WBBG WBBM
WSBR WBCN	6:00- 6:45 8:00-12:00	7:00- 8:05 4:00-11:00 5:00- 8:00	6:00 - 6:50 Silent	Silent 8:00- 2:00	Silent 7:00-11:00 5:30- 9:05	6:00- 6:50 8:00- 1:00 5:30-10:45	Silent 8:00-12:00	WBBR	Staten Island, N. Y Chicage, Ill	272.6 266	7:00- 7:45 9:00- 1:00 6:80- 8:55	8:00-9:05 5:00-12:00 6:00-9:00	7:00- 7:50 Silent	Silent 9:00 - 3:00 0:30 - 8:55	Silent 8:00-12:00	7:00- 7:50 9:00- 2:00	Silent 9:00- 1:00	WBBR WBCN WBZ
WBZ WCAE WCAL	5:30- 7:55 6:00- 7:80 12:00- 1:00	2:00- 5:30 8:30-10:00	5:30-7:55 6:30-10:00 11:00-12:00	5:30- 7:55 6:30- 9:00 6:10m1	6:30- 9:30 Silent	6:00~ 9:00 9:00-10:00	Stlept 6:30- 7:30 8:30- 9:00	WBZ WCAE WCAL	Springfield, Mass	333.3 461.3 336.9	7:00 - 8:30 1:00 - 2:00	3:00- 6:30 9:30-11:00	6:30- 8:55 7:30-11:00 12:00- 1:00	7:30-10:00 Silent	6:30-10:05 7:80-10:30 Sitent	6:30-11:45 7:00-10:00 10:00-11:00	Silent 7:30- 8:30 9:80-10:60	WCAE
WCAP	Silent Silent	3:00- 9:00 8:00- 5:00	6:00-10:30 Silent	Silent 5:20- 9:30	5:00-11:00° 5:00- 9:10	Silent 5:00- 9:45	6:30-11:00 5:30- 8:40	WCAP	Washington, D. C Philadelphia, Pa	468.5 278	Silent Silent Silent	4:00-10:00 4:00-7:00 2:30-10:00	7:00-11:30 Silent	81lent 6:20-10:30	6:00-12:00 7:00-10:10	Silent 7:00-10:45	7:30-12:00 6:30- 9:40	WCAU
WCCD	8:00-11:00	7:45-10:15	6:00-11:00	6:00- 9:00	6:00-11:30	7:00 - 9:30 6:00-10:00 Silent	6:00-12:00		MinnSt. P., Minn	344.6 416.4 516.9	9:00-12:00 Silent	8:45-11:15 Stient	7:00-12:00	7:00-10:00	7:00-12:30	7:00-11:00	7:00-1:00	WCCO
WCX WDAF WDWF	Silent. 6:00- 1:00 Silent	Silent 4:00- 5:30 3:00- 4:45	5:00- 8:30 6:00- 1:00 Silent	5:00-10:00 6:00- 1:00 6:30- 7:30	5:00 - 8:30 6:00 - 1:00 Silent	6:00- 1:00 Silent	5:00-10:00 6:00-1:00 4:00-10:30	WDAF	Detroit, Mich	365.6 440.9	7:00 - 2:00 Silent	5:00- 6:30 4:00- 5:45	6:00- 9:30 7:00- 2:00 Silent	6:00-11:00 7:00- 2:00 7:30- 8:30	6:00-9:30 7:00-2:00 Silent	Silent 7:00- 2:00 Silent	6:00-11:00 7:00- 2:00 5:00-11:30	WDAF WDWF
WEAF WEAD	4:09-10:00 SHent	5:20- 8:15 Silent	4:00- 9:30 Slient	4:00-10:00 Silent	4:00-10:00 7:00- 8:00 5:45- 6:45	4:00-10:00 7:00-8:00 6:00-10:00	4:00-10:00 Silent 6:00-10:09	WEAD	New York, N. Y	491.5 293.9 389.4	5:00-11:00 Silent Silent	6:20- 9:15 Silent 3:00-10:00	5:00-10:80 Silent 7:00- 8:00	5:00-11:00 Sileni 7:00-11:00	5:00-11:00 8:00- 9:00 6:45- 7:45	5:00-11:00 8:00- 9:00 7:00-11:08	5:00-11:00 Silent	WEAF WEAD WEAR
WEAR WEBH WEBJ	Silent 6:30-11:30 Silent	2:00- 9:00 6:00- 8:00 Silent	6:00 7:00 Silent Silent	6:00-10:00 6:30-11:30 6:00- 7:00	6:30-11:30 5:00- 7:00	6:30-11:30 Silent	6:00-10:00 6:00-7:00	WEBH	Cleveland, Ohie Chicago, Ill	370.2 238	7:30-12:30 Silent	7:00- 9:00 Silent	Bilent Silent	7:30-12:30 7:00- 8:00	7:30-12:30 6:00- 8:00	7:30-11:00 7:30-12:30 Silent	7:00-11:00 7:30-12:36 7:00-8:00	MEBH
WEEL	Silent	4:25- 5:30 5:20- 8:20	9:30- 9:45 6:00- 9:00	8:30- 9:45	6:00- 9:00	6:00- 9:00	Silent 6:00- 9:00	WEBW	Beleit, Wis	268 475.9	Silent	5:25- 6:30 6:20- 9:20	9:30-10:45 7:00-10:00	9:30-10:45 7:00-10:00	7:00-10:00	7:00-10:00	Silent 7:00-10:00	WERW
WEMC WFAA	Silent 8:30-12:00	8:15- 9:15 6:00-11:00 3:00-10:30	8:15- 9:15 8:30- 9:30	Silent 6:30-12:69	\$:15- 9:15 Silent 5:00-11:30	Silent 6:30-12:00 5:00-10:30	9:00-10:00 6:30- 9:30 9:30-11:30	WFAA	Berrien Spgs., Mish Dallas, Tex New York, N. Y	285.5 475.9 272.6	Silent 9:30-1:00 8:00-12:00	9:15-10:15 7:00-12:00 4:00-11:30	9:15-10:15 7:30-10:30 10:30-12:80	7:30 - 1:00 10:30-12:00	9:15-10:15 Stient 8:00-12:36	Silent 7:30- 1:00 6:00-11:80	7:30-10:30	WEMC WFAA WFBH
WFDH WFI W698	5:00-11:00 6:00- 9:00 6:30-10:00	2:00-3:00 Silent	9:30-11:30 Silent Silent	9:30-11:00 6:00- 8:00 7:00-10:00	Silent Silent	6:00- 9:00 7:00- 9:45	Silent Silent	WFI	Philadelphia, Pa New York, N. Y	394.5 315.6	7:00:10:00 7:30:11:00	3:00- 4:00 Silent	Stlent	7:00 - 9:00 8:00-11:00	Stient	7:00-10:00 3:00-10:45	Silent	WFI WGBS
WGES WGN	9:30-1:30 5:30-10:30	9:30~11:00 1:30~ 9:00 2:00~ 6:30	Stlent	9:30-1:30 5:30-10:30	9:30 - 1:30 5:30 - 10:30 6:00 - 9:00	9:30-1:30 5:30-10:30 6:00-9:00	9:30-1:30 5:30-10:30 6:45-9:00	WGN	Oak Park, III Chicago, III Buffalo, N. Y	370.2 319	10:30- 2:30 6:30-11:30 Silent	10:30-12:00 2:30-10:00 3:00- 7:30	Silent Silent 7:30-18:00	10:30 - 2:30 6:30-11:30 7:00-10:00	10:50 - 2:30 6:30-11:30 7:00-10:00	5:30-11:30 7:00-10:00		
WGR WGST WOY	Silent Silent 8:30-11:00	Silent 2:35-10:00	6:30-9:30 9:00-10:00 5:30-7:30	6:00- 9:00 Silent 6:30-11:30	Silent Silent	7:00- 8:00 6:30-11:30	6:48- 9:00 Silent 6:30-10:30	WGST	Atlanta, Ga	270 379.5	Silent 9:30-12:00	SHent 3:35-11:00	10:00-11:00 6:30- 8:30	Silent 7:30-12:30	Silent Silent	8:00-9:00 7:30-12:30	Silent 7:30-11:30	WGST
WHAD	Silent 6:06- 7:00	Silent 2:00- 3:00	7:45 - 8:45 6:00-10:00	Silent 6:00- 7:00	9:00-10:00 6:00-12:30	Silent 6:00-10:00	7:45- 8:45 6:00-10:00	WHAD	Madison, Wis Milwaukee, Wis	535.4 275	Silent 7:00- 8:00	Silent 3:00- 4:00	8:45- 2:45 7:00-11:00	Silent 7:00- 8:00	10:00-11:00 7:00-1:30	Silent 7:00-11:00	8:45- 9:45 7:00-11:00	WHAD
WHAS	7:30- 9:00 Silent	4:00- 5:00 Silent 8:00- 1:00	Silent 8:00-10:00	7:30- 9:30 Silent Silent	7:30- 9:00 Silent 7:00- 8:00	7:30-9:00 Silent 8:00-10:30	7:30- 9:00 Silent 7:00- 8:80	WHAZ	Troy, N. Y	399.8 379.5 365.6	8:30-10:00 Silent Silent	5:00-6:00 Silent 9:00-2:00	9:00-11:00 9:00- 9:00	8:30-10:30 Salent Salent	8:30-10:00 Silent 8:00- 9:00	8:30-10:00 Silent 9:00-11:30	8:30-10:00 Silent 8:00- 9:00	WHAZ
WHB WHK WHN	Silent 5:00-12:30 5:30- 7:45	6:30-10:00 2:15- 9:15	7:00-8:00 5:00-6:30 5:00-10:00	5:30- 6:30 8:00-10:30	5:00- 6:30	5:00-10:30	5:00- 9:00	WHK	Cleveland, Ohlo	273 361.2	6:00- 1:30 6:30- 8:45	3:15-10:15	6:00-11:00	6:50 - 7:30 9:00-11:30	6:00- 7:30 7:45-11:30	6:00-11:30 7:00-12:00	6:00-10:00 8:30-11:30	WHK
WH0 WHT	Silent 5:00-11:00	4:00-9:00 2:00-11:00 2:15-8:15	7:30-12:00 5:00-11:00	7:30-12:00 5:00-11:00 6:00-11:00	6:20-11:00 5:00-11:00	7:30-12:00 5:00-11:00 6:00-11:00	7:30-12:00 5:00-11:00	WHT	Des Molnes, Ia Decrfield, III Philadelphia, Pa	526 238 508.2	Silent 6:00-12:00 7:00-11:05	5:00-10:00 3:00-12:00 3:15- 4:15	8:30-1:00 6:00-12:00 Silent	8:30 - 1:00 6:00-12:00 7:00-12:00	6:00-12:00	8:30-1:00 6:00-12:00 7:00-12:00	6:00-12:00	
WIP WJAR WJAS	6:00-10:05 Silent	5:20-8:15	8tlent 6:00- 8:00	5:30- 8:00 7:30-10:00	Silent 6:00- 9:00 7:30-10:00	6:00- 9:00	6:00-10:00	WJAR	Previdence, R. 1	305.9	Silent	6:20- 9:15 Sitent	7:00-9:00	6:30 - 9:00 8:30 - 11:00	7:09-10:00 8:30-11:00	7:00-10:00	7:00-11:00	WJAR
M11A 011A	Silent 6:15-12:00 Silent	Silent 2:00- 1:00 Silent	7:30-10:00 6:15-12:00 Silent	6:15-12:00 7:15- 8:45	6:15-12:00 Silent	Silent 6:30- 7:00	6:15-12:09	WJY	Mooseheart, 111 New York, N. Y	302.8 405.2	7:15- 1:00 Silent	3:00-2:00 Silent	7:15- 1:00 Silent	7:15- 1:00 8:15- 9:45	7:15- 1:00 Silent	Silent 7:30- 8:00	7:15- 1:00 6:30- 8:30	AIM
WJZ WKAQ WKAR	6:00- 9:30 Silent 11:30- 1:00	2:00-7:45 5:00-8:00 Silent	6:00- 9:45 Silent 5:00- 7:00	6:00- 8:30 Silent Silent	6:00- 9:30 6:00- 8:00 7:00- 8:15	6:00- 9:30 6:30- 8:00 Sitent	6:00- 9:30 Silent 6:00- 7:00	WKAR	Lansing, Mich	454.3 340.7 285.5	7:00-10:30 Silent 12:30- 2:00	3:00- 8:45 7:00- 9:00 Silent	7:00-10:45 Silent 7:09- 8:00	7:00- 9:30 Silent Silent	7:00-10:30 7:00- 9:00 8:00- 9:15	7:00-10:30 7:30- 9:00 Silent		WKAQ
WKRC WLBL	9:00- 1:00 11:59-12:59	5:45-11:00 Silent	7:00- 9:00 Sileni	9:00- 1:00 8:00- 9:00	7:00- 9:00 Silent	7:00-9:00 Stlent	Silent	WERE	Cincinnati, O Stevens Point, Wis	422.3 278 394.5	10:00- 2:00 12:59- 1:59 6:30- 7:30	Silent	8:00-10:00 Silent 7:00-10:00	8:00-10:00	8:00-18:00 Silent 6:30-10:00	8:00-10:00 Silent	Silent	WKRC
WLIT WLS WLW	5:30- 6:80 6:45-12:00	Silent 6:30- 7:55 5:30- 7:30	6:00- 9:00 Silent	Silent 6:00-12:00 6:00-8:00	5:30 - 9:00 6:00 - 10:30 5:00 - 9:80	Silent 6:00 - 7:55 8:00 - 10:00	5:30-11:00 6:00-10:30 Silent	WLS	Chicago, III Cinolnnati, O	344.6	7:45- 1:00 6:00- 8:00	7:30 - 8:55	Silent	Silent 7:00- 1:00 7:00- 9:00		7:00-8:55 9:00-11:00	7:00-11:30 Silent	
WMAK	5:00- 7:00 Silent 6:00-10:00	Silent Silent	7:00- 8:00 Silent	Silent 6:00-10:00	Silent 6:00-10:00	9:00-10:30 6:00-10:00	Silent 6:00-10:00	WMAQ	Leckport, N. Y	265.5	Silent 7:00-11:00		8:00- 9:00 Silent	Silent 7:00-11:00	Silent 7:00-11:00	10:00-11:20 7:00-11:04	Silent	WMAK
WMBB WMC	6:30-9:30 8:30-9:30	6:00- 9:30 Silent	8:30- 9:30	6:30 - 9:30 8:30 - 12:00	6:30- 9:30 Silent	6:30 - 9:30 8:30 - 9:30	6:30 - 9:30 8:30 - 12:80	WMC	Memobis, Tenn	499.7	7:30-10:30 9:30-10:30 9:00-10:00	Silent	Silent 9:30-10:30 6:00-10:00	7:30-10:30 9:30-1:00 8:00-10:00	7:30-10:30 Silent	9:30-10:30	7:30-10:30 9:30-1:00	WMBB WMC,
WNAC WNYC WOAI	8:00- 9:00 4:30- 8:20 Stient	6:30 - 8:30 7:00 - 9:00 7:30 - 10:30	5:00- 9:00 5:00- 8:20 Sitent	7:00- 9:00 5:20- 8:20 8:30-10:20	5:00 9:00 5:30 8:30 Slent		5:30 - 8:20 Silent	WOAL	New York, N. Y	526	5:30 - 9:20 Silent	8:00-10:00 8:30-11:30	6:00-10:00 6:00- 9:20 Silent		6:30 - 9:30		6:30- 9:26	
WAAW	6:00-12:15 Silent	6:00-10:00 Silent	6;00-11:00 Stlent	6:00-11:00 8:15-10:00	Silent Silent	6:00-11:00 Silent	6:00-11:00 8:00-10:00	WOAW	Omaha, Nebr Trenten, N. J	526 240 483.6	7:00- 1:15 Silent	Silent	7:00-12:00 Silent	9:15-11:00	Silent Silent	7:00-12:00 Silent	7:00-12:00 9:00-11:00	WOAW
WOC	6:30-12:00 Silent	8:00-11:30 Silent	Sileni 10:00-1:00	6:30- 9:00 Silent	6:30-10:00 Silent	8:15- 9:15		WOI	Ames, la	483.6 270 508.2	Silent	9:00-12:50 SHent 5:05- 7:30	11:00 - 2:00		7:30-11:00 S!lent 7:00-10:30	9:15-10:15	Silent	.WDI
WOO WOR WORD	Silent 5:15-6:30 7:00-8:30	4:05-6:30 Silent 5:45-7:00	6:00- 9:30 4:15- 9:00 6:00- 8:00	Silent SUcnt 7:00-9:00	6:00-9:30 4:15-7:45 7:00-8:00	Silent Silent 7:00-9:00	6:15- 9:30 Silent 7:00- 9:00	WORD	Philadelphia, Pa Newark, N. J Batavla, III	405.2 275	6:15- 7:30 8:00- 9:30	Silent 8:00-9:30	5:15-10:00 7:00- 9:00	5:30 - 5:45 8:00 - 10:00	5:15- 8:45 8:00- 9:00	8:00-10:00		WORD
WOS	Silent 5:00-10:00	7:30 - 8:30 1:15 - 9:00	8:00-10:00 5:00- 9:30	Silent 5:00- 9:00	8:00-10:00 Silent	5:00-10:15	8:00-10:00 7:00- 8:00	WPG	Jefferson, City, Mo Atlantic City, N. J	299.8 447.5	Silent 6:00-11:00	8:30-9:36 2:15-10:00	6:00-10:30	Silent	9:00-11:00 Sllent	8:00-11:16	9:00-11:00 8:00-9:0	WDS WPG
WRBC. WRC	6:00- 2:00 Silent 5:45-11:00	6:00- 9:00 7:30- 8:30 Silent	511ent 7:30~ 8:30 511ent	6:00- 1:00 Silent 5:45-11:00	6:00-1:00 Silent Silent	Silent 5:45-11:00	Silent Silent	WRSG	Washington, D. C	278 468.5	Silent 6:45-12:00	8:30- 9:30 Silent	8:30- 9:30 Silent	Silent 6:45-12:00	Silent Silent	Silent 6:43-12:00	Stient	WREC
WREO WRW	Silent 8:00-10:30	6:30- 7:30 7:00-10:30	Silent 8:00-10:80	7:15 - 8:45 8:00-10:30	Silent 8:00-10:30	7:15- 8:45 8:00-10:30	Silent	WRE0 WRW	Lansing, Mich Tarrytown, N. Y	285.6	1		Silent 9:00-11:30		9:00-11:30	8:15 · 9:45 9:00-11:30	Silent	
WSAC WSA1	Silent 7:00-12:30	Silent 2:00- 3:00	Silent 9:00-11:00	Silent 6:00- 9:00	7:00- 8:00 9:00-11:00	Silent 6:00- 8:00 8:00-12:00	Silent Silent 8:00-12:00	WSAC	Ciemson Coll., S. C Cincinnati, O	. 325.9	8:00-1:30					7:00- 9:00		WSAC WSAI WSB
WSB WSMB WSUI	8:00-12:00 6:30-10:50 Silent	7:30- 9:15 Silent 7:00-10:00	Silent 7:30- 9:00	8:00-12:00 6:30-10:80 Blient	10:45-12:00 6:30-10:30 7:30- 9:00	Silent	6:20-19:39 Sllent	WSMB WSU1	New Orleans, La	. 319 . 483.6	7:30-11:30 6Dent	Silent 8:00-11:00	Silent 8:30-10:00	7:30-11:30 Silent	7:\$0-11:30 8:30-10:00	Silent Silent	7:30-11:30 Silent	WSMB WSU1
WTAM WTAS	5:00-11:00 7:00- 9:30	Silent 7:00-11:00	5:00-11:00 7:00-9:30	5:00 - 6:00 1:00 - 9:30	5:00-12:00 7:00- 9:00	7:00-11:00	5:00- 6:00 7:00- 9:30	WTAS	Cleveland, O	. 389.4 . 302.8	8:00-10:30		6:00-12:00 8:00-10:30 6:00- 7:80	8:00-10:30	8:00-10:30	6:00-7:0	6:00 - 7:00 8:00 - 10:30	WTAS
WATIC	Stient Silent	Silent 6:20- 9:15	5:00- 6:00 5:00- 8:00	6:00- 8:00 5:00- 8:00	Silent 5:00-10:00	5:00-6:00 5:00-11:30		, ww	Detroit, Mich	352.7			6:00- 9:00					

Radio Digest

adio Digest Publishing Company, Inc North Dearborn Street Onicago, Illinois Telephones: State 4372, 4373, 4374, 4375

E. C. RAYNER, Publisher

Bastern Office, Park-Lexington Building, 247 Park Av. New York. Telephones: Ashland 8144, 8145, 8146

Member of the Audit Eureau of Circulations

241 PUBLISHED WEEKLY

SUBSCRIPTION RATES
Yearly in U. S. and Possessions and Canada, 45.00
Foreign postage, \$1.00 additional. Single copies, 10 cents

Vol. KIII

Saturday, May 23, 1925

Give Us a Law and Funds

FLOODS of "Consensus of Opiniou" voting blanks are being returned but it will take a cloudburst of them to float congress into immediate action for the relief of Radio broadcasting. Two things are needed badly—a modern set of laws for the administration of Radio and an appropriation about four times as large as has ever been passed for the use of the Radio section of the Department of Commerce.

the Radio section of the Department of Commerce. Given some sort of law, and ample funds with which to enforce it, broadcasting cannot help but be improved at least somewhat. As it is now, Radio is aimlessly drifting about, wherever the current chooses to take it. Secretary Herbert Hoover and leaders of the industry are endeavoring to attach a few rudders of the good ship Radio, and have succeeded, within their present limitations, in keeping the boat from going aground.

their present limitations, in keeping the boat from going aground.

But shoals are ahead, and it is going to take congressional action to keep the boat afloat. Radio cannot go on indefinitely in its present fashion. Troubles of the worst kind have made themselves known, and are already a nuisance.

Let us have a law. Let us have funds to support the law. The law may be weak in some respects. It may not accomplish all that may be desired, but on the whole, a bad law is better than none at all.

R. P. Crawley accompanies his "Consensus of Opinion" vote with an admirable suggestion for remedying the situation. Mr. Crawley knows Radio, has travelled the country selling sets, and has made good use of his time observing conditions and what is needed. His plan will go to Washington. Like many other good ideas submitted, it may contain the germ of the future law.

Remember, Radio Digest is not entirely "sold" on the Kintner plan. All Radio Digest wants is SOME sort of "rudder" for the good ship Radio. Every idea is welcome, and will be considered from all angles. When the final plan is selected and endorsed by the fourth Radio conference, the result will be a combination of the hest points offered by the most practical thinkers on the subject.

Urge your friends to fill in "Consensus of Opinion" votes. If your Radio chub meets soon, get a supply of voting blanks from Radio Digest. A big task awaits all who are in favor of relieving the air of its present congestion.

The Ads Will Tell Us

The Ads Will Tell Us

TURNING over the pages of our morning daily paper onr eyes were attracted to an advertisement of a certain brand of cigarette. "Stand By for a —" the ad began. It was illustrated by the picture of a popular New York announcer and included the testimonial of that announcer for the brand of cigarette. So begins the new era of Radio hero worship. The era has been going on for some time, but at last advertising copywriters are beginning to take heed of it. For years we have been reading advertisements which tell us that various Ethel Barrymores of the stage and Mary Pickfords of the screen have used sond so's beauty cream. Now we are to learn in what kind of suspenders our favorite male Radio stars place their faith. No longer shall we be in doubt as to the manufacture of the chewing gum our nicrophone favorites chew. No sirreel The ads will tell us.

Keeping Youth on the Farm

Reeping Youth on the Farm

BESIDES benefitting the farmer economically by supplying him with first hand market and weather reports, broadcasting is destined to solve another of the farmer's many problems, that of keeping young men and women on the farm. B. B. Jones, of the Wisconsin department of markets, recently observed the entertainment value of Radio as a strong attraction for youth on the farm. He went further to declare that the farmer is the greatest benefactor of Radio. Mr. Jones is right. Radio, like the automobile, is doing much to entrench the farmer in the strong and contented position that he once occupied before the day of mass production, when so many of his sons and daughters left the farm to enjoy the diversions of metropolitan life.

RADIO INDI-GEST

Introducing Mike and Izzy



Friends and readers of Indi-Gest, meet Mike (left) and Izzy (right), trained antenna raiser chimpanzees, for the great Walla Walla Siation BLAH. Inasmuch as our contributors failed to contribute enough printable and sad jokes to fill the column this week, we were asked by Mike and Izzy if we would give them a little free publicity. As was remarked in a previous issue, they are very intelligent, both having been fired from Harvard zoo on the same day, less than three feet apart. After seeing the above picture, they said indignantly, in chorus: "Why, you've made monkeys outa us!"

Another cute thing that they do (see picture) is to hold onto the aerial wire with their tails. Asked why they did this, Izzy replied, "The matter has been called to my attention that you print your paper, Indi-Gest, on a rotary press and print over 200,000 copies, so I didn't want to fly off the roller." Mike had a much more simple explanation. (He is very simple.) He answered, "I just had a temporary ether wave put in my tail, and I didn't want to change the wave length."

To prove their excellent education, listen in on the following conversation:

Mike: "Who invented Radio, anyhow " Izzy: "Macaroni, but not anyhow. He just invented It."

Mike: "Why, oh why, did he do it?"

Mike: "Why, oh why, did he do it?"

Izzy: "Because he had a corner on the spaghetti tubing market and wanted to round it off."

(Curtain)

All of which goes to prove they don't know anything,

Max: "Why are all Radio fans idealists?" Climax: "'Cause they're always looking for a better Climax; earth!"

The Radio Dictionary
To keep in style, 'tis well these days
To be a shark at words.
With cross-word puzzles has evolved
These dictionary birds.
They sit cross-legged on a chair,
With forchead in a knot,
Their horizontal, vertical,
A mess all polygiot.

A "biped."—that is m-a-n,
Three letters,—'t must be right!
"Simlan"? What on earth!
O, yes!
An a-p-e! How bright!
And so this dictionary bird
Learns "eamel," "dromedary,"
And adds a learned hump or two
To his vocabulary.

But when triliteral words run out, Long words you'll need to know: When Webster's is all learned by heart, They'll turn to Radio. "Condenser," "variometer," "Transformer," "amplifier," "Potentiometer,"—that word Should set a world on fire!

And "variocoupler." Look it up,
Or ask some Radio fan;
"Grid-leak."—a capsule made of glass,
To tempt the heart of man.
Then "vacuum tube" and "rheostat."
"Inductance coil" and "dial;"
"Regeneration," "binding post,"
Just take them single file.

If you would be a "Radio bug,"
From "aerial" to "ground,"
You'll learn to throw these Radio words
And phrases freely 'round,
Don't mix your definitions,
Lest static spoil your chat!
They'll say your station's N. G., for
You broadcast through your hat.
BERNICE CLANCY MARTIN.

Better Luck Next Time, Doctor!

Dear Indi: Following Sir Oliver Lodge's sensational statement that the human eye is in reality a Radio set comes the elaim of Dr. Russ, a famous London surgeon, to have perfected a sensitive instrument which is influenced by the power of the "ray" from the human eye. Dr. Russ declares his instrument is so sensitive that not even a concentrated gaze is necessary for it to be stimulated into motion. Apparently one just hands it the glad eye, and round swings the indicator. Unfortunately for the learned doctor, his discovery of this "I" ray and his invention of a sensitive instrument which responds to it are by no means new. A glance from the female human eye was known to cause a movement in the sensitive male heart even as long ago as the days of the Garden of Eden!

HEART DOCTOR.

Call in the Doctor



Condensed By DIELECTRIC

Not all the protests of listeners in go for nothing. Many of us were of those who tuned in church services after the station had announced its call and turned to the funny sheets, while we tried to guess the identity of preacher and congregation. I was a late attendant by Radio of a church service one Sunday where the pastor paused to state that we were hearing a Methodist service through Station KDKA. Other ministers would confer a favor on Radio listeners by emulating the example of the Pittsburgh preacher.

When the dials are set for Station KTHS, Hot Springs National Park, Ark., you are apt to find that station in the midst of a program given by the Arlington orchestra. If it is, then sit back for a joyous time. This is one of the really good orchestras rendering selections both classical and semi-classical and, at the appropriate honr, enticing dance numbers. Other features are also attractive.

There was some banjo playing in the studio of WLW Cincinnati, above the average of modern banjo work. Imitation of the style of other instruments robs the banjo of its characteristic effects, yet that is the popular thing at present. Solo and duet numbers were offered in the original, captivating style and nerit our applause.

In the search for something new under the sun, program managers of many stations are presenting all kinds of novelties for the entertainment of the fan. The Hollywood movie station, KFWB, solved their problem very easily by inducing well-known stage and screen favorites to act as announcers. The station motto or slogan might well be "A different personality every evening." As a rule the acting fraternity seem to make good before the "mike," their training giving them the necessary poise, precise pronounciation and knowledge of showmanship that goes a long way toward making the successful announcer. Patsy Ruth Miller, however, did not go over so well. Taken as a whole the mcn do make better announcers.

Possibly many of you are familiar with the Ethio-Possibly many of you are familiar with the Ethiopian Rhapsody as a composition, but fewer perhaps with the piece as interpreted by the Reo orchestra, playing through Station WREO, Lansing, Mich. I was sorry when they had completed the number. Mr. Severn's violin playing was quite agreeable. In fact there is only commendation for WREO.

From WGBS, New York city, a unique feature was presented in the form of an entertainment from the steamship Leviathan—direct from the ballroom of this immense vessel. Among those taking part were a soprano and painist, gifted musicians both, and their immediate audience comprised many notable people of the two hundred present.

that not even a concenerated gaze is necessary for it to be stimulated into motion. Apparently one just hands it the glad eye, and round swings the indicator Unfortunately for the learned doctor, his discovery of this "I" ray and his invention of a sensitive instrument which responds to it are by no means new. A glance from the female human eye was known to cause a movement in the sensitive male heart even as long ago as the days of the Garden of Eden!

HEART DOCTOR.

Son: "What nationality is a child born in the U. S. A. whoso father is French and mother Italian?"

Father: "American, of course, my boy."

Son: "Well, how about my family of kittens born on the roof. Are they aerials?"

A. C. B.

Goodrich Four Tube Dry Cell Semi-Portable

Compact, Doubly Regenerative and Easy to Construct

By W. M. Goodrich

l is .0005 mfd.; C-2 is .000045 mfd.; 3 is .0005 mfd.; C-4 is .002 mfd. -1 is 16 turns No. 20 dsc. on 2½" tube. L-2 is 54 turns No. 20 dsc. on 3" tube.

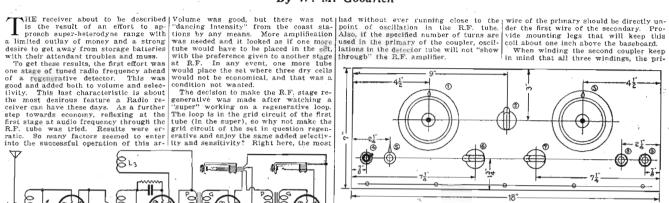
form. L-5 is 54 turns No. 20 dsc. on 3" tube.

rangement that it was abandoned. Now, with good tubes as cheap as they are, it looks like false economy.

Regeneration Is Decided Upon
Further improvement was desired at this point, although four 199 tubes, used in one stage R.F., regenerative detector and two audio, gave wonderful results.

of you say, the set will be a bad offender with radiation.

It is, with improper handling. So will a super-heterodyne on an aerial, or any neutrodyne not entirely neutralized on all the lengths. This set has a loose-coupled primary, and further, the greatest distance, volume and selectivity can be



The shorter 3" tube is used for the secondary of the R.F. coil. Start the winding about one-half inch from one end, leave a tap at the center turn and the winding will finish about one-half inch from the other end. Locate the terminals and tap as shown on the "Raseboard Layout," when you wire up. "G" goes to the grid of the R.F. tube and the stator plates of the condenser. "F" goes to the negative A battery lead and to the rotor plates of the condenser. The same instructions apply to the coupler secondary winding terminals with this one exception: "F," which is the lower one, goes to the positive A battery instead of negative. This is important. The reason for this detail of the terminal layout is to permit the shortest possible grid leads.

Winding Primary of Coil Winding Primary of Coil

Winding Frimary of Con.
The 2½" tubing, 1½" long is for the primary of this coil. This is mounted concentrically in the left end of the secondary form in any convenient manner.
Bring the terminals out as shown; the inner end is the acrial side. When locating the primary in the secondary, the first

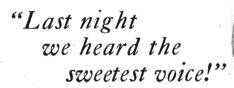
mary, secondary and rotor are in the same direction. Start the secondary \(\frac{1}{2} \) from the bottom of the tube and it will finish up about \(\frac{1}{2} \) from the iop. The prinary form can be made of bakelite, hardrubher or hardwood, preferably mahograhy or walnut. If made of wood it should be dipped in boiling parrafin to exclude moisture, before winding.

The terminal screw for the lower end of the secondary should be flat head countersunk to allow free entrance of the primary form. The primary is wound, in any fashion in a groove about \(\frac{1}{2} \) equare. This groove should lie nnder the first two turns of the secondary.

In winding the rotor, start the winding as close to the edge as possible, wind on six turns, and skip over to right spacing on opposite side, so as to finish close to the edge. The idea is to leave maximum clear space in center for placing two small brass screws used as terminals for this winding.

In wiring up use small flexible "pigtail" wire direct from these terminals to the (Continued on page 18)

(Continued on page 18)



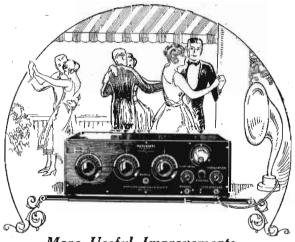
 \mathbf{F}^{EW} boast of having heard a powerful voice. Radio has grown up. It is now something to listen to, not to marvel at. We are now in the cycle of TONE!

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

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





More Useful Improvements-

THE Improved MARV-O-DYNE, model 612-C, has more really useful improvements than any other set at any price. To you that will mean clear and better reception over greater distances.

What other set offers you the Fila-meter? This exclusive device works in conjunction with a genuine Weston meter and keeps the tubes always at their hest operating point. The saving in tubes and batteries is

And as for tone quality-well, a demonstration will surprise you. MARV-O-DYNE speaks right up; it never mumbles. Stromberg-Carlson transformers see to that

Before you decide on any set, be sure to go to your dealer. Look over the nationally known units of which this set is built. Listen to it. You'll be surprised to learn that the Improved MARV-O-DYNE sells for only \$110.

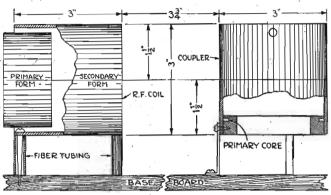
West of the Rockies and Canada \$120

Amber Manufacturing Corp., 599 Eleventh Ave., New York City



GOODRICH RECEIVER

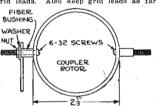
GOODRICH RECEIVER
(Continued from page 17)
tube and transformer. In making the supporting legs for the coupler, so proportion their length and so locate them on the base, that the colls are at right angles with each other and at distance diversely on the content of the conten a fairly strong signal at the moment, ro



The conter line, or axis, of the R.F. coil, if extended must pass through the exact center of the coupler on the middle turn of the secondary windings. If the colis are not so located, you probably will be bothered with uncontrollable "squeals."

Mounting Transformers

In preparing to mount your transformers notice that they are directly under the detector and audio tubes. See if your transformers are low enough in height to permit putting the set in a cabinet. If not, cut out a section of the base and support them on strips on "stirrups" to gain approximately the thickness of the base-board in your overall height. Other arrangements will also be found feasible. Locate the second audio transformer as far to the right as possible, and locate the first one air right angles to it and at least one and one-half inches from the coupler. Connect the shields to the negative "A" filament. This is in lieu of grounding them. The last three tubes, detector and audio must be cushion mounted: the R.F. tube does not bave to be cushion mounted. At the risk of being criticized for repeating, we will repeat, arrange your tube sockets and transformers for shortest possible grid leads. Also keep grid leads as far FIBER.



from plate leads as you can, as nearly at right angles thereto as possible, and never parallel.

parallel.

In mounting your instruments on the panel, take a good look at your "midget" condenser. A short circuit here will introduce your tube filament to the B battery. I don't ever remember of any such meeting being profitable to anyone but the tube dealer.

the tube dealer.

Aerial and ground binding posts are not shown on the drawings. They can be located as usual on front of panel or place every way equal to any five-tube neutro-

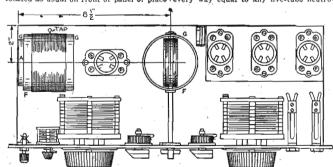
Truing of Finished Receiver
In tuning, handle as any regenerative
receiver, the strongest signals and greatest selectivity with your regeneration just
below the "spilling over point."

below the "spilling over point."
However, if you will leave you "midget" condenser at its lowest capacity you can loeate your station by the "squeal" without any trouble or aerial radiation, then reduce "equeal" to voice or music and then strengthen and increase selectivity, if needed, with the "midget" condenser.

LIST OF PARTS
1 Panel, 7x18"\$ 3.15
2 Variable Condensers, .0005 mfd. 10.00
2 Vernier Dials 5.00
1 Midget Condenser, .000045 mfd. 1.50
1 Battery Switch 1.00
1 Rheostat, 30 ohms 1.00
1 Rheostat, 20 ohms 1.00
2 Audio Transformers, shielded,
3½ to 1
1 Jack, double circuit 1.00
1 Jack, single open circuit
1 Grid Condenser, .00025 mfd40
1 Grid Leak Cartridge, 3 to 5 mgs50
1 Pixed Condenser, .002 mfd
4 Tube Sockets, 199 type 1.00
1 Piece 3" tubing, 234" long30
l Piece 3" tubing, 3" long
1 Piece 21/2" tubing, 3/4" long10
1 Piece 21/2" tubing, 11/4" long20
1 Pound No. 20 dsc. wire 1.80
1/4 Pound No. 28 dsc. wire
Miscellaneous screws, wire, etc 2.00
1 Cabinet, 7x18x7" 8.00
1 Baseboard, 61/2 x17"
Total oost

On a great many stations it will be left at about one-third of its capacity. The two condenser dilats go around just about in step. The right hand is the more critical. The set logs the same on any station every time on any aerial. As you use the set you will notice the amplifier rheostat controls to a slight degree regeneration in the R.F. tube; also, that the "Midget" condensor affects the setting of the left-hand dial on any given station.

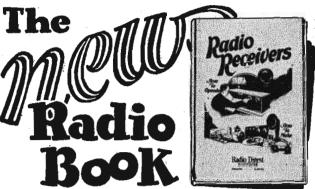
This set properly constructed is in



on a small strip of hard rubber or bake-lite, supported from the back edge at the baseboard and bringing them up pretty As a rule, it has better tone and selectiv-well above the R.F. coil. If the binding josts are placed on the front of the panel, locate the "G" terminal on the front of the panel, locate the "G" terminal on the front side of the primary form instead of the rear as shown, which was intended for rear

mounting.

After winding up and giving it the usual double check-over, after getting ready to operate, make sure that the detector tube will oscillate. If not possible to try it on



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

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

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

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

For the Man That Bought His Set

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

No matter what type of receiver you own, there are dozens of valuable suggestions on tuning, trouble shooting and operating. Your head receivers, loud speaker, antenna and certain parts within the set, require frequent cleaning, adjusting and care. Interference and its remedies are factors you should understand even though you care nothing about "what makes it go,"

Compiled by the technical staff of Radio Digest, it represents the bigb lights of the past twelve months in the Radio field. All this data is indexed for ready reference and logically arranged. Only a few thousand bave been printed and this offer will stand for a limited time. The only book of its kind and is FREE with one year's subscription to Radio Digest. This offer good only on subscriptions sent directly to this office, not through agents or

Subscription Department

Radio Digest

510 N. Dearborn St., Chicago, Ill.

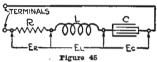
	_
	23-25
Radio Digest	
Enclosed is \$5.00 in () M. O., () (Check.
() Currency, for which enter my subscr	
to Radio Digest for one year and send m	
book, "Radio Receivers."	9114 0
DOOK, Radio Receivers,	
Name	
Address	
1 1447.000	
l	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
(Typewrite or Print Clearly)	

A. B. C. Course in Radio Fundamentals

Chapter IX—Action of Inductance and Capacity in Circuits

By David Penn Moreton

A CIRCUIT composed of a resistance $R_{\rm c}$ and a capacity C. all effective current through the condenser in count, the current is exactly the same in every part of the circuit at the same time, and this current may be represented by a curve Es as shown in figure 45. The electrical pressure between the terminals of the resistance and it may be represented by a curve Es as shown in figure 45. The electrical pressure between the terminals of the condenser is given by the terminals of the reminals of the condenser is given by the following expression: $R_{\rm c} = \frac{1}{6.2832 \times f \times C}$ Cal pressure between the terminals of the curve will be equal to the value of Ea and EL are not of the current in the capacity reactance. When EL and EL are equal. When EL and EL are not of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the condenser in firequency of the current in the capacity and the reactance of the equal to EL and 10 and EL are not of the equal to EL and 10 and EL are not of the current in the capacity and the reactance of the equal to EL and 10 and EL are not of the equal to EL and 10 and EL are not of Ea and 10 and EL are not of EL and 10 and



through the condenser, or the current I will lead the electrical pressure between the terminals by 30 degrees, and this electrical pressure may be represented by a curve Ec as shown in figure 46. The electrical pressure between the terminals of the inductance will lead the current I in phase by 90 degrees, or the current will lag the electrical pressure between the terminals of the inductance by 90 degrees and this electrical pressure may be represented by a curve Er as shown in figure 46.

The electrical pressure between the ter-minals of the inductance is given by the

the terminals by 30 degrees, and this electrical pressure may be represented by a curve Ec as shown in figure 46. The electrical pressure between the terminals of the inductance will pressure between the terminals of the inductance by 30 degrees, or the current I in phase by 30 degrees, or the current will lag the electrical pressure between the terminals of the inductance by 90 degrees and this electrical pressure between the terminals of the inductance by 90 degrees and this electrical pressure pressure. The effective electrical pressure between the terminals of the resistance, as indicated on an alternating-current voltmeter, will be equal to the product of the resistance in ohms and the effective current through it in amperes. If the current I in figure 46 is a sine-wave curront its effective value will be equal to 0.707 of its maximum value.

The effective value of the electrical pressures between the terminals of the inductance is given by the following expression:

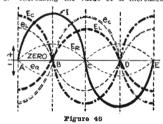
EL I X 6.2832 x f x L

An inspection of the expression for the value of Ec shows that Ec increases with an increase in the frequency and decreases in the frequency. The value of the requency and decreases in the frequency and decreases in the frequency and decreases in the frequency and decreases in the frequency. The value of the requency and decreases in the frequency and

when EL and Ec are equal.

When the values of Ec and EL are not equal they may be made equal by changing the frequency of the current in the circuit. If EL is greater than Ec, a decrease in frequency will decrease the value of EL and also increase the value of Ec and for some particular frequency EL will be equal to Ec. If Ec is greater than Ec, an increase in frequency will decrease the value of Ec and for some particular value of Ec and for some particular value of frequency Ec will be equal to EL.

The values of EL and Ec may be made equal to each other without a change in frequency by changing the values of the inductance L or the value of the capacity C. Increasing the value of L increases



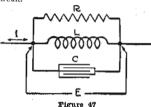
Et. and increasing the value C decreases Ec.

If Et and Ec are not equal the current I will not be in phase with the electrical pressure impressed on the circuit. The current will lead the electrical pressure impressed on the circuit if the capacity reactance is greater than the inductance and Capacity reactance is greater than the inductive reactance, and the current will lag when inductive reactance exceeds in value the

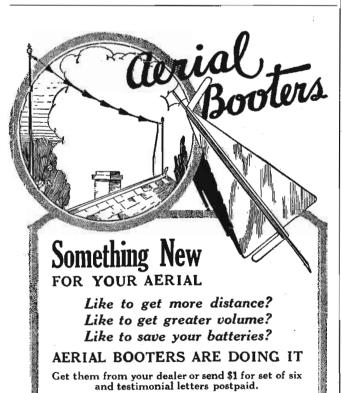
The same relation exists between Ec and EL as exists be-tween the capacity and the inductive re-

tween the capacity and the inductive reactance.

When Ec and EL are equal, there is said to be a resonance of electrical pressures and the circuit will have a minimum impedance and hence a given impressed electrical pressure will produce a maximum oursent. The electrical pressure hetween the terminals of the capacity and the inductance does not bear any definite relation to the electrical pressure impressed upon the circuit, but depends upon the curverent in the circuit and the value of the reactance of the inductance and the reactance of the inductance and the reactance of the inductance and the pressure divided by the resistance of the inductive and capacity reactances are equal the current is equal to the impressed electrical pressure divided by the resistance of the circuit.



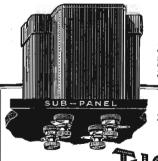
In a series circuit of the kind just de-scribed, the electrical pressure between the terminals of the inductance and the terminals of the capacity may be much greater than the total applied electrical



If they don't do what we claim, money will be refunded without question

Dun's, Bradstreet's or Any Bank.





SUB-PANEL MOUNTING TYPE They permit a neater assembly, shorten-ing of leads and concealing of wiring— as in factory built sets. Same ratios— same prices— as standard type Thordarsons.

2 - 1, \$5.00 $3\frac{1}{2}$ - 1, \$4.00 6 - 1, \$4.50

Order direct if your dealer cannot supply

TRANSFORMERS Standard on the majority of quality sets

THORDARSON ELECTRIC MANUFACTURING CO. worlds oldest and largest exclusive transformer makers

Chicago, U.S.A.

Chicago Illinois

RADIO DEPARTMENT

HOW TO OPERATE SET

(Continued from page 7)

still further to the right. The flaments should always glow at a dull red color, and should never be burned brighter than necessary to obtain volume. They may be ex-amined at any time by tipping the panel forward.

Station Selector I — The control Station Selector I— The control so marked serves to adjust the anteuna tuning circuit so that it will rospond to the desired wave length.

Amplification—The control so marked adjusts the regeneration, and thereby regulates the sensitivity and the selectivity of the set.

Station Selector II—The control so marked adjusts the secondary tuning eircuit so it will respond to the desired wave length.

cuit so it will respond to the desired wave length.

Turn the "Volume Control" until the polnter extends horizontally to the right. Turn the "Battery Setting" until the pointer rests on the mark, previously described, which shows proper position when batteries are new. Turn "Amplification" until a breathing sound is heard. This should occur when the pointer reaches "2.5" or a little hefore. If it does not, disconnect the least marked "20B" from the positive terminal of the first block of the B battery and connect it to the positive terminal of the second block.

Tuning In Station

Selector II" from one end of the scale
to the other, keeping them at approximately the same readings all the time. Go
slowly and lister carefully. A squeal or
whistle will be heard when the set is
tuned to a station that is operating. When
the whistle is heard, turn "Station Selector II" until the whistle assumes a very
low pitch. Then turu "Station Selector II" until the whistle hecomes londest. Finally turn "Amplification" to the left just
enough to stop the whistle when the
speech or music should he heard clearly.
A slight readjustment of "Station Selector

II" may be necessary for hest results.
Of course, it may happen that a station
is found between numbers of its program.
Therefore, if nothing is heard at the conclusion of above process, wait a minute or
so. Do not wait too long before adjusting
"Station Selector II!" A whistle may also
be produced by an improperly operated receiving set metrby, but such a whistle seldom remains deneticant.

A little experience in making the adjustment will be necessary before stations
can be found easily and quickly, but once

this experience is had, the operation of picking up signals and tuning the receiver is very simple.

Relation Between "Station Selectors"

Is very simple.

Relation Between "Station Selectors"

It will be found that there is a definite relation between the two "Station Selectors," for example, when "Station Selector II" should be nearly "2" when both are tunded to the same wave length. It may happen that this agreement will not be very close, in which case "Station Selector I" will reach one end or the other of the scale before "Station Selector II," thus making it impossible to tune both selectors accurately over the whole wave length range. To improve this coudition, tip the panel forward. At the extreme left is a coil wound on a micarta tube. At the top of the coil are four terminals, to one of which is attached a lead from the antenna. Remove this lead and attach it to one of the other terminals. With anyordinary antenna a terminal can be found where the agreement between the "Station Selectors" will be close.

When receiving from nearby stations, it may happen that the volume will be greater than is desired. Do not attempt to decrease the volume by turning back the "Battery Setting" as that will spoil the quality. Turn back the "Volume Control" until the signal strength has been reduced as much as desired. Selectivity, or the ability to pick a desired station out of interference, depends upon the setting of Volume Control." The receiver is much

ability to pick a desired station out of interference, depends upon the setting of "Volume Control." The receiver is much more selective when this control is turned to the left so that it is often desirable to operate with this control almost to the left limit. This weakeus the signals somewhat, but they can be brought up to desired loudness by further adjustment of the "Amplification Control."

Storage Battery Charger

Storage Battery Charger

A storage battery can be charged only hy a direct current, and when charging, the positive wire of the charging current must be connected to the positive of the battery, and the negative to the negative. The voltage of the charging current should be somewhat greater than that of the hattery, while the amperage should not be above one-tenth of the capacity. When a battery is charged or discharged very quickly it will overheat and the paste will fall out of the grids. Not only will this prevent the battery from taking a charge, but it will short circuit the plates at the bottom. For this reason the battery must be charged slowly.

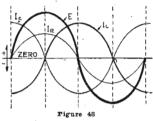
A. B. C. RADIO COURSE

(Continued from page 19)

(Continued from page 19)
nected in parallel is shown in figure 47.
In a circuit of this kind the current I in
the main line is composed of the three
currents in the resistance, inductive and
capacity branches respectively. If the
three currents were in phase they could
be added as in the case of a direct-current
circuit, to get the total current; but in
the ease of an alternating-current circuit
the phase relation of the current must be
taken into account in obtaining the resultant current. ant eurrent.

ant eurrent.

Since the same electrical pressure acts upon all three branches of the circuit shown in figure 47, we can use the wave of this electrical pressure as our reference curve. In the case of the scries circuit we used the current wave as the reference wave since the various parts of the circuit were all in series and carrying the same current.



Let the electrical pressure acting on the Let the electrical pressure acting on the parallel circuit be represented by the curve marked E in figure 48. Now the current In the branch of the divided circuit composed of the resistance will be in phase with the electrical pressure E and may be represented by the curve Iz. The effective value of this current will be oqual to the effective electrical pressure divided by the resistance of the branch.

Current Lags 90 Degrees

The current In the branch composed of the inductance L will lag the electrical pressure E by 90 degrees and may be represented by the curve IL. The effective value of the current will be equal to the effective value of E divided by the reactauce of the circuit in ohms.

The current in the branch composed of the capacity C will lead the electrical pressure E by 90 degrees and may be represented by the curve Ic. The effective

value of the current will be equal to the effective value of E divided by the reactance of the circuit in ohms.

The three currents Is. It, and Ic combine to give the current I in the main part of the circuit. An inspection of figure 48 shows that the current in the branch composed of the inductance is divided in of the circuit. An inspection of figure 48 shows that the current in the branch composed of the inductance is displaced in phase by 180 degrees from the current in the branch composed of the capacity. If these two currents are equal in value they will combine to give zero value and the current I in the main part of the circuit will be equal to 1s. When the currents Ic and IL are not equal they will give, when combined, a resultant current which is displaced in phase from E by 90 degrees and this resultant current will lead E if Ic is greater than IL and it will lag E if IL is greater than IL This resultant current combines with Ix and gives the value of I in the main circuit, which may lead or lag E, depending upon the relative value of I is and IL.

The values of the current Ic and IL may be made equal to each other by changing the frequency of the applied electrical pressure E, or by changing the value of the inductance L or the capacity C.

The application of these relations and

value of the inductance L or the capacity C.

The application of these relations and their importance in Radio work will he appreciated when the subject of tuning is discussed.

(Editor's Note.—The next installment of Professor Moreton's series will be devoted to electrical measuring instruments, such as ammeters, voltmeters, wavemeters, etc.)

Cutter for Spider Web Forms

ti s quite difficult te cut forms for spider web coils from celluloid or thin cardboard. The work can ue more easily done if a shap-edged tool is ased. I find the discarded safety razor blads to be quite appropriate. To use these blades sneeessfully some kind of a holder must



be applied. I mado use of an ordinary %inch bolt having a square head. A slot
was sawed in the head to hold the razor
blade. The blade is soldcred in the slot.
The tool is used with a hammer for a
driver. The slots can be cut square up
to the edges of the form with this cutter.
H. H. Yeager, Salina, Kansas.



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

other receivers failed.

There is nothing better than the Crosley 50 for the range of the control of the contro

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

The Crosley Radio Corporation Powel Crosley, Jr., President 5494 Einssiras St. Cineinnati, Ohlu Crosley owns and operates Broad-cating Station WLW

Collapsible LOOP AERIALS



"Europe with Lincoln Loop" writes Radio Expert

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

1. Wrote us PMRTUR 1.

Gentlemen:
Plasse sent me by parcel post to P. O.

Dox 303; Nowfolk, Va., the following:
Thop (2) Lincoln 4 Print
Thought Lincoln 4 Print
Thought Lincoln 4 Print
It may interest you to know that I have
efficial Radio Bronicat confirmation of
European Trans-Atlantic Recognion during
Furnosean Trans-Atlantic Recognion during
Coin loop for this reception.

Very truly yours.

Lincoln 4-Point Tapped Loop \$8.00

The only moderate priced Loop of the type on the market. Fine for all types of "Super-hett"—and neutrodyne and tuned radio frequency sets, where an outside Aerfal is impractical. For the roquirements of any set where it is desired to vary the inductance of the loop.

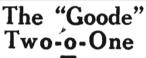
Lincoln Center-Tapped Loop \$6.50

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

BUY A LINCOLN LOOP

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

Lincoln Radio Corporation







QUARTER AMPERE AMPLIFIER—DETECTOR

RADIO TUBE

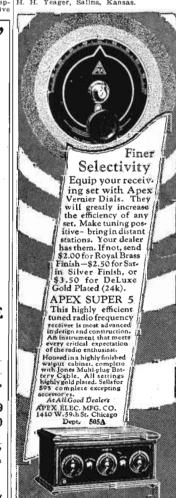
GUARANTEED SATISFACTORY

All "GOODE" Tubes Sold Direct to the Consumer—No Dealer Profits \$1.89

ONE—"Goode"
Detector-Amplifier..... THREE—"Goode"
Detector-Amplifiers.... (All postage prepaid)

The "Goods" Two-o-One A Tube amplifies or de-tects. It is a quarter ampere, Bre volts, standard base silvered tube. Sand express or postal money order—New York draft—or personal check to—

The Goode Tube Corporation (Dept. A) Owensboro Kentucky



Two Tube Tandem Rheostat Control

Panel Space Economy with Double Mounting

In making the change from a one tube set to a two tube set, many Radio fans may have been confronted with the problem of insufficient space for another rheostat, which is necessar; in order to have

WORKSHOP KINKS EARN A DOLLAR-

THERE are many little kinks worked out at home that would aid your fellow Radio worker if only be 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 eovelope, so rejected copy may be returned. The work must be entirely original, not copied.

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

a separate control for the one step of am-plification. However, this may be over-come by the plan outlined, which will work very satisfactorily.

work very satisfactorily.

First, secure a brass strip 1/16 inch
thick, ½ inch wide and 7 inches long.
Lay this strip flat. Place the two rheostats at each end, as shown, taking care
that the rheostats do not extend beyond
each end of tho strip, then carefully mark
the centers where the holes should be
drilled. After the holes have been centerpunch marked, they should be drilled,
using a ¼-inch drill for the center holes
of each rheostat, and a number 18 drill
for the two outside holes of each rheostat.

Make a line 2½ theles from each end

Make a line 2½ inches from each end of the brass strip and bend on these lines into the shape of the letter U as shown at A. Particular care must be exercised in this operation, as the holes will not line up if the brass strip is not bent accurately.

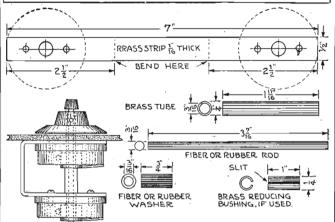
The parts may now be assembled in the following manner: Mount the first rheostat in the usual way, but place the brass form next to the panel and then the rheostat on top; then put in a brass tube, inch outside by 1½ inches long, with a 3/16-inch hole and tighten up the screw. Also put on a dial with a hole all the way through. Fasten the second rheostat in place on the top of the brass form, as sbown, and pass a rubber or fibre rod, 2/15 inch hy 4 inches long, through the brass tube, stopping to put on the ½-inch rubber or fiber washer, shown at B, and pass through to the second rheostat. If the second rheostat has a ½-inch hole, it will be necessiary to use a reducing a slit in a piece of ½-inch brass tubing, with a 3/16-inch hole and placing it into the ¼-inch hole in the rheostat. A rubber or fiber tube, ¾ inch outside, by ½ inch long, with 3/16-inch hole should be passed into the bushing.

It is then only necessary to place a The parts may now be assembled in the

into the bushing.

It is then only necessary to place a knob on the end of the rubber or fiber rod to complete the job. It might be said that any make of rheostat could be used, provided that rheostat number 1, bas at least a %-inch hole.—M. V. Anderson, Edgewood, R. I.

SINGLE MOUNTING WITH ONE KNOB



Fake Electrolyte for Charging Storage Cells

The "wets" of Radioland, who prefer to use storage batterles on the filaments, and perhaps the plates, of their tubes, will be interested in what practically constitutes an expose by the bureau of standdards of "fake" charging solutions.

An official buroau statement says, "Changing the solution in a storage battery does not charge it," and continues as follows:

Changing the solution in a storage battery does not charge it," and continues as follows:

An investigation was rocently made at the bureau of standards of certain solutions which were said to charge batteries instantly, or in a short time as compared with the usual process. These tests have shown that batteries containing these solutions, contrary to the claims made for them, behave in accordance with well-established laws of electrochemistry.

Analysis revealed these solutions to contain 38 to 42 per cent of suiphurle acid, which is about the amount in the ordinary electrolyte of an automobile battery when charged. In some of them were found also significant amounts of sodium or magnesium as well as coloring matter. The sodium may have been added as sode, lye, or glauber salts; the magnesium as epsom salts. The use of sodium sulphate (glauber salts) in hatteries is an old story. It was suggested more than 35 years ago, but various authorities, since that time have stated that such material is without beneficial effect. This has been confirmed by the bureau's recent experiments which show the rate of sulphation of plates to be unaffected by even 4 to 5 per cent of epsom salts or glauber salts.

Comparison was made between batteries containing these solutions and similar

glauber salts.

Comparison was made between batteries containing these solutions and similar batteries containing electrolyte of sulphuric acid of equivalent strength. No essential differences were shown in the charging, the voltage, the efficiency, or the temperature. When a battery is said to be charged it is understood that the battery is fully charged. A battery which

is almost completely discharged may have nearly the same voltage as one that is charged. In this condition it may be able charged. In this condition it may be able to operate the starter of an automobile, but this fact can not be taken as evidence that the battery is fully charged. It takes as long to fully charge a battery containing one of these solutions as to charge a similar battery containing the ordinary electrolyte.

ordinary electrolyte.

The indiscriminate addition of these solutions to a battery is not advisable, although in some cases no great barm may be done. If the solution is used to replace the electrolyte of a completely discharged battery as is usually the case, the battery may be spurred on to give a little more current because the plates retain a surplus of active material. When the battery is recharged by an electric current the specific gravity will rise much too high. This is because the acid formed at

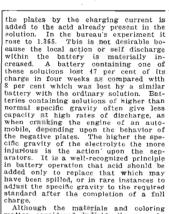


Works

Constour and performance unbased of before. Requiring a singligible cost. Approved and listed as Standard by including the standard by including the standard by including the standard by including the standard for the standard for the standard by the standard by

more spanies and and testings. Extra factory phase Serie. Hower, regard plates, order yours fooding. Just a toke pumped of Mantings SEND NO MONEY and the pumped of Mantings of Series in control. Extra Offers, the Abstraction period over pull, 472. We can't with order. Mail your order cowie. Series of the Mantings of

World FOR RADIO



Although the materials and coloring matter considered individually may be harmless, the disadvantages in using such solutions more than offset any temporary

Wavy Effect on Panels
A beautiful wavy effect can be applied to a panel by covering the tip of your thumb with a bit of felt and using a gritty scouring powder as a cutting agent and cover the entire panel surface with row after row of thumb whorls. A feather dister can be used to remove the surplus powder. This leaves a dizzy-picturesque effect. On soft panels, straight rubbing with a dry scouring powder gives a pleasant, dull grain effect.

—J. P. Kennedy, South Bend, Ind.

OLD MAN STATIC

Statichoke Has Startled the Radio World-Insures Clear, Long Distance, Summer Reception.

tance, Summer Reception.

Kansas City, Mo., May 15. (Special)
—The long promised invention which insures clear, long distance, "summer radio" without the agony of static, has just been announced here. Radio experts and fans who have tested this new imported inveution, pronounce it marvelous. Awarded Certificate of Merit by Radio News of Canada.

In addition to redueing static to a minimum, the Statichoke increases the volume as well as clarity of distant reception, sharpens the selectivity of tuning in, eliminates that harshness of the tubes so noticeable on local loud speaker reception and acts 3a. a safety lightning arrester.

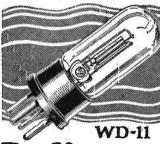
The Statichoke somewhat resembles

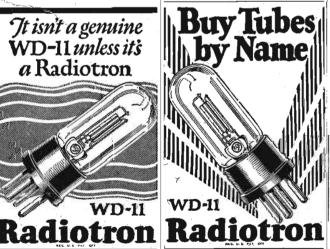
preser reception and acts as a safety lighting arrester.

The Statichoke somewhat resembles a small transformer, and by a system of coils it allows only the correct current value to enter the set, choking out other high current variation from the aerial, which is passed off through a secondary ground connection.

So condent are the American distributors that Statichoke will give you clear long distance summer reception that they have set saide 25,000 units for indicat distributions to the ratio fans, a smallest distributed with the said of the control of the said control of

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





USE YOUR RADIO SET ALL SUMMER

Eliminate Your Power Noises and Reduce Static and Re-Radiating Squeals at least 50 Per Cent

WITH THE KANE ANTENNAE

We will sell you the working drawing with instructions for erecting this wonderful Antennae for a dollar bill. If after looking over this drawing you decide you would rather have a factory-built Antennae than build one yourself, we will take back the drawing and allow you full purchase price on an order for an Antennae.

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

\$ 6.50 13.00

Working Drawing with Instructions for Erecting, \$1.00 (Stamps Not Accepted)

Postpald to any part of the United States or sent C.O.D. when 25% of price accompanies order.

THE KANE ANTENNAE COMPANY, Aberdeen, Washington

Ouestions and Answers

Strange Encoking Noises

Strange Enocking Noises
(12642) RNM, Crab Orchard, Tenn.
Several times within the last two years
I have been bothered with knocking noises
in the phones. They start with a slow,
knock and increase to a speed so that they
can be counted. The last time it happened I walked up to the lighting switch
and on touching it I received a shock.
Putting the antenna blade close to the
ground terminal I could see sparks jumping the gap. What eaused this?

A.—It is very probable that the noise
and sparking which you describe was
static. Whenever an antenna is big or
whenever it is located on a high building,
etc., it will attract static to such an extent
as to make it spark. Static sparks have
been known to jump a gap of 10 inches
at times.

at times.

Interference from an Ice Cream Freezer (13573) WAI, Lamasas, Texas.

How can I stop the Interference produced by an ice cream freezer? Whenever it is in operation it impairs the reception of all receiving sets in the neighborhood.

A.—We are not familiar with ice cream freezers so we cannot advise definitely how to remedy the trouble. However, if there is a motor in the machine we would advise that you look over it first. A sparking commutator is usually the cause of the trouble. If you cannot locate the trouble you can overcome it largely by placing a cage made of dy sereen around it and grounding it.

Lack of Volume on High Waves (13670) CWR. Holyoke, Mass.

I have a regenerative set which works wonderfully on the low waves. On the higher waves, however, it does not work as well. What is the matter?

A.—The trouble in your case is one of two things. Either you do not have enough turns on the tickler so that you do not get enough regeneration on the higher waves, or else the fundamental of your antenna falls at upper band of broadcasting. A regenerative set does not oscillate as well if at all on the fundamental of the antenna. To overcome the first add more turns to the tickler. If you find that this does not improve results, put a loading coil in series with the antenna to raise the fundamental above the broadcast band. The leading coil should consist of about 40 turns of bell wire on a 4-incb Mechanical Rectifier for Batteries

cast band. The reasons of about 40 turns of bell wire on a 4-incb tube.

Mechanical Rectifier for Batteries (13:586) ELE Verdun, P. Q.

I wish to make a storage battery charger. I heard a lot about the mechanical type of rectifier. Please give me a hook-up and instructions for building a mechanical storage battery charger. A.—We would not advise the use of a mechanical type of a storage battery made ones do not work too well. Made at home it would only spark and waste current away. The sparking would interfere with the near-by Radio sets. If you wish to build a charger we would suggest the charger described by Mr. Fournier in December 20 issue of Radio Digest.

Copper Tubing for Antenna (13582) EJM, Waterbury, Conn.

I have heard that reception can be improved by the use of copper tubing for an antenna, is this correct?

A.—It is not correct. The only thing the use of copper tubes does is increase the antenna's capacity to the earth. It is used by transmitters largely because it is rigid.

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

PATENTS

T A I L N I S

Time counts in applying for patents. Don't risk delay in protecting your ideas. Send sketch or model for instructions or write for FREE book, "How to Obtain a Patent' and "Record of invention" form. No charge for information on how to proceed. Communications strictly confidential. Prompt, careful, efficient service. Clarence A. O'Brien, Registered Patent Attorney, 2098 A Security Bank Bilg. (directly across streat curity Bank Bldg. (directly across street om Patent office), Washington, D. C

SEND IN YOUR Paralyzed Tubes to be Restored to Health in Our Laboratory

oe restored to freshtin in Ultr Laboratory

of your worn-out tubes can

be put in first class condition.

TV-180, C-290 and any other thoristed fitmens

such as Allas, Magnation, De Forest, OWD-11 or

tubes.

The Costs You Only \$1.00

If we can restore your rube so that it operates astractorily at I we are not successful, our charge it is the part of the pa

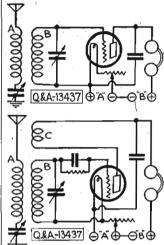
O'CONNOR & COMPANY Cleveland, Ohio

Won-Regenerative Cirouit

(13437) LJM, Cedar Rapids, Iowa.

I am thinking of building a one tube receiving set and would like to know of a good hook-up that will not reradiate and be selective. The set I want must be selective as it is possible to make a one tube outfit and it must have a clear tone without distortion, and if possible it should not reradiate to annoy my neighbors. Long distance reception is no object. If it will bring in the stations good as far away as Chicago I will be satisfied. I desire to use the C-299 or UV-199 tubes. Do you have any instructions for a set that will fill the above requirements?

A.—We are showing two hook-ups from which you may have your choice. The first one is the non-regenerative circuit. This circuit will not disturb others. The



quality of music received by it will be surpassed by the crystal only. However, it will not bring in very much DX. You may and you may not get Chicago stations. If you get them they will not be very loud. The second is a single tube regenerative set. This set will, if operated properly, bring in the music as clear as the non-regenerative, bowever, if not it will distort the signal. If operated carelessly it will reradiate and how! It will also bring in DX and you will have no trouble bringing in Chicago stations and those on the east eoast should come in good.

The first part of both these sets are alike. That is, colls A and B. Coll A should consist of about 30 turns of number 18 wire wound in the basket fashion. The secondary, that is coil B, should consist of about 40 to 45 turns of number 18 wire wound in the basket fashion. The

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

Buy right and make money.
Standard lines, parts, sets,
shipped now. Fast service
hard-to-get items
extra good discounts.
Get our catalogue
No. 8. It shows youl W. B. PUBTTERBE RADIO SUPPLY CO. 2121 Locust St. St. Louis. Mo. talk 2121 Locust St.

EXCLUSIVE TERRITORY
Is now being allotted on a new line of
BROADCAST RECEIVERS BRUADUCASI KECEIVERS
Fopular Friced—Liberal Discounts
and Exclusive Territorial Arrangement
DEALERS
ARRANGE NOW FOR TERRITORY
and be prepared when the rush comes
GENERAL DISTRIBUTING CO.
P. 0. 80x 66

Regardless of the Crystal You Are Using-You Ain't Heard

Nothin' Yet-"Rocky Mountain Steel Galena"

Mounted Without Reat YOUR DEALER OR DIRECT 30c Postpaid

The Reynolds Radio Co., Inc. Denver, Colorado

size of both these coils is about 4½ inches in diameter. These coils should be arranged so that the distance between them can be varied. They should be parallel to each other. The tickler, that is coil C, consists of about 25 turns of number 18 wire wound on a basket form about 2 inches in diameter. It should be placed on a shaft so that it can bo rotated. While any condenser will do in series with the aerial the one across the secondary should be a low loss condenser. The rotary plate is indicated in the drawing and it is important that it should be connected as indicated. nected as indicated.

nected as indicated.
Through error, the grid leak and grid condenser have heen omitted from the non-regenerative circuit. In both circuits the grid condenser should be .00025 mfd. while the leak will be in the neighborhood of 5 megohms. Variable condenser is .0005 mfd., while the bypass is .002.

Sending Out Time Signals
(13467) WSP, Harrisburg, Pa.
Will you picase tell me how the broadcasting stations send out the time signals?
A.—The time signals sent out by the
broadcasting stations are usually telegraphed to the station from some watch
factory or from some observatory or other
place that keeps standard time. A ticker
is usually arranged so that it operates a
buzzer at the station, the buzz of which is
sent out. sent out.

Amateur Transmitting License
(13820) FWH, Auburn, Ia.
Asks what he has to know to get an amateur operators' license. Also, if he ean use a Western Electric CW-936 transmitter. This transmitter is arranged to transmit on waves of 256, 297, 345, 400 and 600 meters.
A.—To get an amateur operators' license you must first be able to send and receive in the international code at a speed of at least ten words per minute. You must havo a knowledge of theory to be able to explain the operation of your sending and receiving set. You must be able to explain the operation of your ransmitter to the correct wave length by the use of a wave meter. You must be able to explain how to adjust your prospective sending and receiving set. You must have read and studied the Radio laws and regulations governing stations in U.S. and of the world. You must have memorized the law of secrecy. You cannot use the transmitter, which you mention without rebuilding it so that it will send on a wave length below 200 meters.

PATENT ATTORNEYS

PATENTS. Bookletfree, Highestreferences. Best results. WATSON E. COLEMAN, Patent Lawyers 644 G Street, Washington, D. C.





Radio Tubes Exchanged



Radio Dealers HEADQUARTERS **NEW CATALOG READY**

Bigger, better than ever. Write on your letterhead for discounts and catalog A D1003

AKEM & MELAUGHLIN® 25 E. Illinois St. — Chicago

Large Outside Loop

(13561) JEW, Oakland, Okla.

I intend to build an outside loop antenna. I intend to put it on a square 9 feet on the side. This antenna is to be 30 feet above the ground with a 30-foot lead to the set. Would this antenna be better than a flat top with a 30-foot elevation?

A—An order

A.—An antenna of this kind would not be better than a flat top. It would be inferior when compared with it. The 30-foot lead would cancel all directional properties of the loop.

Charging Storage Batteries from 250 V.D.C. (13673) EEM, Lafferty, Ohlo. What is the best way to charge a stor-age A and B battery from 250 voits D.C.

age A and B battery from 250 volts D.C. A.—You can charge these batteries by connecting a resistance in series with the battery. You should have an ammeter to indicate the charging rate. The charging rate, which may be varied by the size of the resistance should be about 4 to 6 amperes for the A battery and about ½ to 1 ampere for the B battery.

Station Gall Letters
(13666) ALS, Royal Oak, Mich,
What are the call leters of a low wave
station in University City. They begin
with KF and they broadcast at 1 a. m.,
Eastern standard time.

A.—The station you heard is KFVE. It was started May 6.

List of Amateur Stations

List of Amateur Statious

(13542) BE, Fairview, Kans.

Could you please give me the call letters and wave length of amateur broadcasting stations?

A—We wish to advise that amateur stations are not broadcasting stations which transmit to one certain station only. We could not give the list of them as they number somewhere around 17,000. A call book contains the list you want. The amateurs use various bands, all of which are located below 200 meters. They are as follows: 150-200, 75-85.7, 37.5-42.8, 18.7-21.4, 4.69-5.36, and also a small band for use in beam transmission in the neighborhood of \(\frac{1}{2} \) meter. The amateur phone stations are all in the band between 170 and 180 meters. CW only is allowed on the other wave lengths.

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

\$10 IS ENOUGH You can hear programs from cities 400 to 1,000 miles away on Lambert Crystal Sets and you won't need tubes or batteries.

or Datteries.

Picture of set and particulars free.

LEON LAMBERT

501 Kaufman Bldg. Wichita, Kansas

Dealers write for discounts.

Get Rid of Static Lambert's Static Stopper does

the work. Particulars free LEON LAMBERT 501-A Kaufman Bldg., Wichita, Kansas

GO into the RADIO BUSINESS We specialize in Equipping New Deelers with entire stock — ADVIGE PREE. Send for Our Eadio CATALOG & BARGAIN LISTS

Wholesale Only
MANHATTAN RADIO CO.
112 Trinity Place New York City

0 U T

The Hawley"—A complete everlasting acid nickel-iron type storage "B" battery. Special office everlasting acid nickel-iron type storage "B" battery. Special office everlasting acid nickel-iron type storage (B") battery. Special office everlasting acid nickel-iron type storage (B") volts, \$12.50; 135 volts, \$12.50; 135 volts, \$14.75; 157½ volts, \$18.80. Equipped so that a special detector or and thipped separate. Special detector of the special office everlastic everlast

Radiophone Broadcasting Stations

Corrected Every Week-Part II

FIND MISTAKES AND YOU'LL GET DOLLAR

NE DOLLAR will be paid to the Radio fan reader of Radio Digest submitting the most errors in any one station's listing in the Directory of Radiophone Stations, which appears in five parts, serially continuously on the next to last page. Letters must reach Radio Digest's office not later than one week from date of issue correcting one station, but such corrections must be verified by the stations themselves, and NOT by comparison to other so-called accurate Radio directories or lists. Turn in corrections for as many stations as you can find—if you can find errors! Use separate sheet of paper for each station submitted and place name and address on each sheet. place name and address on each sheet. In case of tie, duplicate awards will be made.

United States (Cont'd)

(Note-The second part of the schedule list appears helow. The first expeared last week.)

(Note—The second first of the schedule list appears below. The first _xsppeared lest week.)

KJR. Seatle, Wash. 384 A meters. 1000 waits. Northwest Saids Service Co. Announcer. Vincent ... Krat. was Saids Service Co. Announcer. Vincent ... Krat. was Saids Service Co. Announcer. Vincent ... Krat. Saids Service Service. Packet. 12.30 June 10.50 Service. Packet. 12.30 June 10.50 Service. Packet. 12.50 Service. Packet.

Souther L. T., Cont. Stepn. Times of the Nishin. The West Age. Research 19 with Age. Res Irregular schedule.

KM95, Thomas, Wash. 250 meters. 100 waits. Argonalistics Station. (Love Electic Co.) Mon. Wed. Fri. KM95, Thomas, Wash. 250 meters. 500 waits. Calling Station. (Love Electic Co.) Mon. Wed. Fri. 1988.

KNX, Hallywood. Calli. 330.9 meters. 500 waits. Calling the Election. 1988.

KNX, Hallywood. Calli. 330.9 meters. 500 waits. Calling the Election. 1989.

KNX, Hallywood. Calli. 330.9 meters. 500 waits. Calling the Election. 1989.

KNX, Hallywood. Calli. 330.9 meters. 500 waits. Calling the Election. 1989.

KNX, Hallywood. Calli. 330.9 meters. 500 waits. Calling the Election. 1989.

KNX, Hallywood. 231.6 and and every hour. 1989.

KNX, Hallywood. 231.6 and an every hour. 1999.

Corrected Every Week—Part II

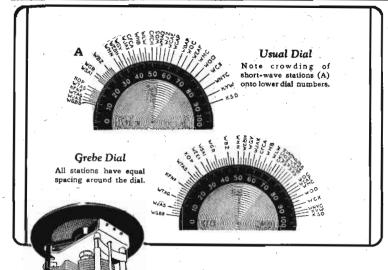
Street Part II

Street Part III and the Company of the Company of

Grebe S.L.F

(straight line frequency)

Condenser



QUICK, easy, certain tuning-in of all stations with the Synchrophase is assured by the S-L-F Condensers. These diagrams show why.

Speedy, Accurate Tuning

due to this new type of condenser

THE Grebe S-L-F (straight line frequency) Condenser provides equal spacing for all stations, as the above diagram indicates. The short-wave stations are not crowded onto the lower dial numbers, a condition which usually adds to the difficulty in accurately tuning these stations. This difficulty has been overcome in the Grebe S-L-F Condenser by having the plates follow a special type of the hyperbolic spiral series of curves.

This exclusive Grebe feature is but one of several which have already won for the Grebe Synchrophase an enviable reputation for unusual performance.

Ask your dealer to demonstrate the practical workings of these Grebe features

A. H. GREBE & CO., Inc., Van Wyck Blvd., Richmond Hill, N. Y. Western Branch: 443 So. San Pedro Street, Los Angeles, Cal.

This Company owns and operates station WAHG





Reg. U. S. Pat. Off.

All Grebe apparatus is covered by patents granted and pending.



The excellence of Synchrophase results is the reward for years of painstaking care.