

For a Thrill "A Step On the Stair"

Radio Digest

EVERY WEEK

11 PROGRAMS

TEN CENTS

Vol. XVI No. 13

Copy Radio Dig

Title Reg. U. S. Pat. Off. & Can. Reg. of Canada

APRIL 3, 1926



*Yo-Ho-Ho the WJAZ Pirates Burst into Song; Able Firemen Turn on the WHAD M...
How to Assemble Jefferson-Raytheon B Power Unit; Women's Page; Radio Club*

licensed
of Minn.
Minn. 500
DR. Omro,
The follow-
ed: KPUM,
watts, 230
50 watts
N. Y., 5
Escanabe

changed
Ark. if
KSMN
Y; an

No. 2 OFFICIAL BALLOT
Announcers' Contest
RADIO DIGEST THIRD ANNUAL GOLD CUP AWARD

GOLD CUP AWARD Editor, Radio Digest,
510 North Dearborn Street, Chicago, Ill.

Please credit this ballot to:

(Announcer's Name) of Station (Call Letters)
Signed
Address
City State

NEWS BRIEFS FROM THE BROADCASTERS

KGW, PORTLAND, IS NOW 1,000-WATT STATION

Microphone Technique Being Taught in New York—A. A. U. Finals to Be Sent from KOAC

KGW, the Portland Oregonian, expects to have its new 1,000-watt transmitter in operation as those lines are read. Eastern listeners will have a new star at which to shoot.

A school for the study of the technique of performing before the microphone has been opened in New York City at Steinway hall. T. H. Fellows and B. F. Gerald are the founders.

Final matches in the National Amateur Athletic Union championships, to be held at Corvallis, Oregon, April 15 to 17, will be broadcast by the Oregon Aggie station, KOAC, on Friday, April 16, from 8:15 to 11 p. m. Pacific time.

Thousands of sleepless listeners are recommending the Friday midnight programs broadcast by Crosley WLW, Cincinnati. It is then that the "Night Howlers" take the air from the Crosley Sky Torriers. Well-known WLW artists perform under non-de plumes.

A canary obbligato heard by WJZ's sharp-eared listeners has been traced to several canaries in cages in the lobby of the Hotel Commodore, New York, where music is picked up from Bernhard Levitt's ensemble. Unknown to WJZ, the songs of the little birds were given audience.

Helene Sullivan, Metro-Goldwyn-Mayer star, is one movie actress who does a regular Radio act. She is heard over KKNX, Hollywood, each Sunday afternoon, from 4:30 to 5 p. m. Pacific time with her अपना chit-chat.

KOIL, Council Bluffs, Iowa, with the placement of a permanent studio in the Hotel Fontenelle, Omaha, has added the name of Omaha to its location announcement.

Nine hours and thirty-four minutes is the daily average time spent by KPO, Hale others, San Francisco, on the air. About of the hours are devoted to studio fees, while the remaining time is used on etc control pickups.

T. Norton, United States representative from New Jersey, was an honored last week on the congressional gram broadcast from WRC and

the home of the famous Kansas waks, boasts three studios and broadcasting room located at its points in Kansas City. This

NOV OF PIANO AND AN IS COVER GIRL

are presented to Miss Eva Howard, the dainty, curly-haired Miss on the Radio Digest this week. Miss Howard is at present favoring Station WAFD, Port on, Mich. With her artistry, but is well known in other cities where delicate touch on the piano and organ keys has identified her about special announcements to mands of Radio fans. Her career an in El Paso, Texas.

teen remote control pickups are also feeders for a well diversified program.

"The Border Line," a four-act historical drama dealing with the first fifty years of the northwest territory, was broadcast last week by WGY, General Electric station at Schenectady. The prologue and epilogue were by Emma S. Backus.

A cosmopolitan program presenting the themes of all races of the world being taught at the University of Nebraska, was recently broadcast over KFAB, Lincoln, Nebr., by courtesy of the Knife and Fork club and the Nebraska Writers' guild.

John Wilbourn, one of Baltimore's leading tenors and popular as a singer of old English ballads and light operatic selections, has joined the staff of WBAL, as assistant studio manager. Mr. Wilbourn

NOMINATION CERTIFICATE
Announcers' Contest

Radio Digest Third Annual GOLD CUP AWARD

GOLD CUP AWARD Editor, Radio Digest,
510 North Dearborn Street, Chicago, Ill.

Dear Sir:
I nominate
Station (Broadcasting Station)
Signed
Address
Town State

Old-Fashioned Grannies Win Contest Over Flapper Kind

CINCINNATI.—The modern type of grandmother lost to the old-fashioned kind in the contest conducted by the Crosley Radio broadcasting station, WLW, Cincinnati. Votes were received from all parts of the country, the voters indicating their choice through a postal card. A total of 5,058 postal cards were received up to the time the contest closed. Each of the grandmothers received a number and their identity was kept secret, although a description of the ladies was given over the air.

Mrs. Margaret Poehner, seventy years old, and grandmother of seventeen children, 1919 Kentucky avenue, Cincinnati, won the first prize. Her voting number was 7.

will be one of the regular features on WBAL's musical programs during the dinner hour, 6:45 to 7:45 p. m. eastern time, every Tuesday evening.

GOLD CUP CONTEST STARTS WITH BANG

16 POPULAR ANNOUNCERS PUT IN RACE ALREADY

Listeners Rush to Enter Nominations—Race Has Indications of Keen Competition—Save Ballots

In but a few hours after the last issue of Radio Digest had been placed on the newsstands, an enthusiastic admirer had nominated "Bill" William G. Hay, WLIR and WGN, and put him in the race early for the 1926 Radio Digest Gold Cup Award.

Other listeners, wishing to place their favorites in the list of candidates for the selection of the world's best for this year, hurriedly nominated fifteen other microphone personalities in the brief time between the appearance of the last issue and the time this issue went to press.

The competition this year for the solid fourteen-carat gold cup and the two additional silver loving cups has indications of an enthusiastic interest.

If your favorite announcer's name is not in the list below of those nominated, fill in the nomination blank at the right top of this page and get him into the running. Then SAVE your ballot for him. Don't miss a SINGLE ballot, for when these are turned in to Radio Digest in a group of CONSECUTIVE numbers, a pleasing and worthwhile bonus of extra votes is allowed the announcer for whom you are voting.

How Bonus Votes Are Given
The ballots, which appear weekly beginning last issue at the left top of page 2, are numbered consecutively. They will appear every issue until the close of the contest with the August 28 issue. Each of these ballots will count for one vote when sent in separately.

But when held until you have four consecutive numbers of ballots and sent in at one time to Radio Digest, a bonus of eight votes, or a total of twelve votes, will be allowed the candidate for whom you are voting.

The larger the number of consecutive ballots submitted, the greater is the bonus allowed. Eight consecutive ballots receive a bonus of twenty votes, or a total of twenty-eight votes. Twelve consecutive ballots receive a bonus of thirty votes, or a total of forty-two votes. And for a complete series of ballots, including one from each issue from March 27 to and including the last, which will appear in the August 28 issue, a bonus of fifty votes will be allowed.

Send in nominations or ballots to the GOLD CUP AWARD EDITOR, Radio Digest, 510 North Dearborn street, Chicago.

Sixteen Announcers Nominated
The sixteen announcers who already have been nominated are:

- William G. Hay, WGN and WLIR.
Phillips Carlin, WEAF.
The Hired Hand, WEAF.
Harold Isbell, KYW.
Gavie V. Grubb, KFAB.
Robert W. Griffin, WHO.
Pat Barnes, WHT.
Henry Field, KFNE.
E. L. Tyson, WWJ.
Paul Johnson, WCCO.
Lambdin Kay, WSB.
George D. Hay, WSM.
Graham McNamee, WEAF.
Leo Fitzpatrick, WJZ.
John Daggert, KIH.
Richard V. Haller, KGW.

Cup for Canadian
It is interesting to note that the list includes the winners of the 1924 and 1925 gold cups, in addition to men who no doubt prove the strongest contenders for the 1926 Gold Cup Award.

For the benefit of those readers who did not read the details last issue, it is repeated that this year two large silver loving cups have been added to the list of prizes. One will go to the second highest announcer, while the other will be awarded to the highest Canadian announcer at the close of the competition.

In case of a tie, duplicate cups will be awarded the winners.

CONTENTS

Radio Digest, Illustrated, Volume XVI, Number 12, published Chicago, Illinois, April 3, 1926. Published weekly by Radio Digest Publishing Co. (Incorporated), 510 N. Dearborn Street, Chicago, Illinois. Subscription rates yearly, Five Dollars; Foreign Postage One Dollar additional; single copies Ten Cents. Entered as second class matter at the post office at Chicago, Illinois, under the Act of March 3, 1879. Title Reg. U. S. Patent Office and Dominion of Canada. Copyright 1926 by Radio Digest Publishing Co. All rights reserved.

Table with 2 columns: Article Title and Page Number. Includes 'All the Live News of Radio', 'Milwaukee Firemen "Take the Air"', 'WJAZ Air Pirates Defy Powers and Board Foreign Wave', etc.

Looking Ahead

When Land Values Began to Swell at Such a Rapid Pace that some speculators made fortunes almost over night it occurred to Dave P. Davis to make more land by filling in a shallow part of Tampa Bay. He built Davis Islands and thereon erected Station WDAB, associated with the Tampa Daily Times. Read about it in next issue of Radio Digest.

Ever See the Bees Gathering Honey from a Sunflower? There's a girl down in Fort Worth, Texas, with a voice that fairly drips with honey. They say she ranks about first in the country for the number of fan letters received. She is only known by the name of "Sunflower Girl." Read this romance in one of the forthcoming issues of Radio Digest.

Next Week's Installment of "A Step On the Stairs" will present disclosures concerning the great Radio mystery that will astound you. There will be some new revelations and a rapid crash of events that will leave you breathless with surprise. Who killed Jeremiah Turner? Read it next issue and begin to figure on that prize money.

The Super-Torrodyn, a Super-Heterodyne Improvement, as built by J. E. Owen of the University of Oklahoma, will be described beginning next issue. Mr. Owen will give the circuit he used and name the necessary parts.

Don't Bloop! Learn How to Test for Noises by means of the apparatus to be described in the next article of this series now appearing in Radio Digest.

Newsstands Don't Always Have One Left

WHEN YOU WANT

Radio Digest

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

SEND IN THE BLANK TODAY

Publisher Radio Digest,
510 N. Dearborn St.,
Chicago, Illinois.
Please send enclosed check M. O. for Five Dollars (Six. Foreign) for One Year's Subscription to Radio Digest, Illustrated.

Name
Address
City State

HINT PLANETS MAY HEAR WORLD

WHITE BILL PASSES HOUSE BY BIG VOTE

RADIO LEGISLATION NOW DEPENDS ON SENATE

Senator Watson Appears to Hold Answer Which Rests on Which Course He Advocates

WASHINGTON, D. C.—After a heavy two days' buffeting, the White Radio bill recently rode a stormy passage through the house which sat as a committee of the whole, placing Radio broadcasting under the control of the secretary of commerce and a proposed federal Radio commission. The bill was passed by a vote of 218 to 124, over a bitter attack led by Representative Davis of Tennessee and other democratic members.

The accepted bill was very much along the lines of a third bill introduced at the present session by Mr. White, although a few minor amendments were adopted, one of which would prevent the secretary of commerce from remitting fines for infractions of the regulations.

The bill would create five zones throughout the country, from which five members, one from each zone, would be appointed to form a federal Radio commission.

Depends on Watson

But at the time this issue goes to press, the listeners do have no assurance that Radio will be legislated. The bill is now in the senate, along with the Dill Radio bill, the main provisions of which are similar. And Radio legislation depending upon the senate, leaves the matter resting in the hands of Senator Watson of Indiana; at least that is the consensus of opinion of the members of the senate.

It is admitted that there is a general appreciation of the importance of Radio legislation in the senate, but there is also a lack of interest and knowledge as to the requirements. His colleagues are depending upon Senator Watson to do what is best.

How and Where?

If Senator Watson sponsors a Radio bill, it is expected there will be a new Radio law enacted at this session of congress, and unless he does get behind and push for the enactment of one, the chances for Radio legislation are very slim. Senator Watson is enthusiastic for government control of the situation, but the question of how and from where it is to be controlled will be the bone of contention.

In the wrangling and milling over whether the secretary of commerce, the department of commerce, the interstate commerce commission, a federal Radio commission or some combination of those groups should exercise power over Radio, the paramount issue of whether or not we should have Radio legislation may be ground underfoot.

Congressman Free Tells How To Make Good Cheap DX Set

WASHINGTON.—If you are not entirely satisfied with your set, it may be a good idea to communicate with Congressman Arthur M. Free, at the House office building, at Washington, D. C., and find out how his son built his. Mr. Free is from California. During the debate on the White Radio bill, he said:

"Any boy can take, as my boy did, a bolt, a little wire, and a crystal which costs a few cents, and make a Radio set and he can listen in on any program anywhere in the United States. If he wants a little better set, he can take a little bit more wire, a few more nuts and bolts and get a tube, and he can make a tube set, paying \$2.50 for the tube."

To Hold Hearings April 5

WASHINGTON, D. C.—The Radio copyright bill, sponsored by the broadcasters of the country, has been introduced in the house, by Representative Vestal of Indiana, chairman of the committee on patents to which the bill has been referred. The bill is identical with the Dill bill in the senate.

Joint congressional hearings on the Radio copyright bills now pending in both houses will begin April 5.

A second Radio copyright bill has been introduced in the house by Representative Vestal of Indiana. It is understood that this bill has been endorsed by the American Society of Composers, Authors and Publishers. No date has been set for hearings for this bill but it also has been referred to the house committee on patents of which Mr. Vestal is chairman.

NOW IS TIME TO TRY FOR ANTIPODE ISLES

WANT to hear Australia, New Zealand and Japan? Long distance fans will be gratified to know that just now is the best time of the year to try. Donald Wright, of Terminal Island, Terminal, Calif., reports that he is now regularly hearing 3LO, 2BL, JOAK and JOBK. The latter two are Japanese. The former two are Australian and New Zealand broadcasters. Mr. Wright finds that these stations are best heard between 2 a. m. and 5 a. m. Pacific time. (This is equivalent to 3:30 and 8 a. m. Central or 4:30 and 7 a. m. Eastern time.) Try for them some morning.

PRISONER ASKS FOR SONG HEARD IN JAIL

CHICAGO.—How the wonderful magic of Radio penetrates even prison walls and sends sunshine into the darkest corners of the world was revealed in a letter received at Station WLLD from prisoner No. 25372 at the Missouri State Penitentiary at Jefferson City, regarding the popular song, "The Loneliest Girl in Town."

He is an ex-jockey, who in his hey days had squandered the world's goods on the kind of a girl described in the song. He wrote that he was washing other prisoners' clothes, to support a one tube set.

SHE'S ONE SOPRANO YOU'LL LIKE



Ruth Heubach is a charming soprano who knows well how to use the microphone and you'll hear her on the WSAI community concert on Monday, April 5.

Station KTHS Offers Big Easter Broadcast

Three-Hour Program to Be Handled by Remote Control

HOT SPRINGS, Ark.—Simultaneously with the first long ray of sunlight as the Easter Sabbath sun climbs over the rim of the world, the carrier wave of Station KTHS, the New Arlington hotel at Hot Springs National Park, Arkansas, will start an elaborate and unique Radio program—with more than 2,000 artists taking part, and a visible audience of more than 10,000.

The program will begin at 5:32 a. m. Central time, taken from Kavanaugh field, Little Rock, by remote control over 55 miles of land wire. The broadcast will be opened by Rev. Harry Knowles and followed by music by the forty-piece Missouri Pacific band and many artists.

ASK FANS' AID IN SHORT WAVE TRY

April 3 Marks Beginning of Month's Test of Five Low Lengths

SCHENECTADY, N. Y.—All listeners who have short wave receivers and who are interested in the progress of broadcasting are asked to cooperate with the General Electric company engineers, who are conducting a series of tests in wave propagation of 22.79 and 65.5 meters. Beginning April 3, special telegraph tests will also be made on 15, 26.4 and 50.2 meters, by 2XAV, 2XAD and 2XAC respectively.

All listeners who can cooperate during these are asked to send their names to the Radio department of the General Electric company so that special report forms may be supplied them.

SHORT WAVE OBSERVATION BASIS OF IDEA

Science Revamps Theory

Dr. E. O. Hurlbut Suggests Possibility of Communicating with Universe by Radio Impulse

PHILADELPHIA.—Strange as it may seem, you may tune in and hear the celestial harmonies that whisper between you and the spheres—you may hear programs for Saturn, Mars and Mercury, to say nothing of the other planets, as they go whirling through space.

Dr. E. O. Hurlbut of the naval research laboratory at Washington, D. C., who recently addressed the Franklin Institute, a nationally famous organization in Philadelphia, admitted that there is a possibility of interplanetary communication by Radio. In brief, Dr. Hurlbut said that if interplanetary communication is at all possible, it will be achieved through Radio wave lengths of less than ten meters.

Waves Go Somewhere, But Where?

In the course of his lecture on "The Kennelly-Heaviside Layer and Radio Wave Propagation," he explained that all other waves except those under ten meters collide with the atmospheric layer at an altitude of about 100 miles, and rebound to earth. But those below ten meters are more roving. He inferred that after leaving the earth they just disappear, and at the present time no scientist has been able to determine just where they land.

That they leave the earth is a fact; it is also a fact that they do not come back. Then the question remains: where do they go? Upon the answer hangs the possibility of this generation or of any other finishing the nocturnal repast and then flipping the dials to discover just what April strawberries are selling for on the Saturn produce exchange.

How Short Waves Reach Out

Dr. Hurlbut spoke in a truly scientific light and said:

"A quantitative theory, giving a clear picture of the manner of the passage of Radio waves over the surface of the earth has resulted from the recognition and measurement of the skip distance for Radio waves below forty meters in length. The electrons of the upper atmosphere, known as the Kennelly-Heaviside layer, activated by the earth's magnetic field, play a crucial role.

"The shorter waves are propagated longer distances by refraction in the layer and reflection at the ground. They reach heights of about 100 miles. At this altitude there are ten to the fifth power electrons per cubic centimeter, that is, about ten billion electrons. The theory explains many complex phenomena of fading, directional variation, and reception with vertical and horizontal Hertz antennas."

The layer of which Dr. Hurlbut spoke was named after Dr. Kennelly, professor of electric engineering in the Massachusetts Institute of Technology, and the late Dr. Oliver Heaviside, of England.

Station Changes

Two new stations have been licensed this week, WLB, the University of Minnesota station at Minneapolis, Minn., 500 watts, 277.6 meters, and WJRK, Omro, Wis., 50 watts, 237.1 meters. The following stations have been relicensed: KFUM, Colorado Springs, Colo., 100 watts, 239 meters; KWUC, Le Mars, Iowa, 50 watts, 252 meters; WPDQ, Buffalo, N. Y., 50 watts, 205.4 meters; WRAIC, Escanaba, Mich., 100 watts, 256.3 meters.

Four stations have officially changed call letters. KFMO, Fayetteville, Ark., is now KJOUA; Santa Maria, Calif., KSAI; WEAT, Minneapolis, Minn., WGVY; and WKBK, New York, N. Y., WBNY.

WTAQ has moved from Osseo, Wisconsin, to Eau Claire.

Power changes include 1,000 watts for KFNF, Shenandoah, Iowa; 2,000 watts for WEEB, Chicago; and 3,500 watts for WLWL, New York.

Firemen Turn On the Mikes

MILWAUKEE Smoke Eaters Back Again On WHAD After Mourning Radio Leader Killed Answering Alarm. Swiss Cheese Makers Yodle a Hit. Turnverein Assists.

THERE'S a wee sprig and a bit of purple and black over the double doors of Engine House No. 3 on the Milwaukee South Side. It is a house of mourning.

Not so long ago the shining of the engine brass and the general sipping up was made lively by a ragtime jazz piano accompaniment under the nimble fingers of Merritt Ramus. The piano is in the music room which formerly had been the stables where noble horses clamped and stomped as the alarms came tingling over the wires. At first the men missed the horses but Tom Saskowski got out his banjo and August Boehm his harmonica. They were so good they played at a benefit show and then they were invited to broadcast over WHAD, the Marquette University-Milwaukee Journal Radio station.

This encouraged others in the department with musical tendencies and Engine House No 3 became a regular musical center. The stall partitions were knocked out and the music room came into being. But there came a day when the lid of the old piano was closed down. Tom and August put away their instruments.

You see, in the first place they were all firemen. Captain Ernest Glander never failed to remind the men of that, although it was he who started the Radio diversion. There was an alarm. Clang! Clang! The apparatus tore out the door. Zip and they reached a railroad crossing—a passing train—the hurtling motor of Captain Glander—a crash and in a moment the veteran fire fighter had passed to his reward.

In the group below may be seen the old ensemble as they used to appear before the microphone and in the chair with his accordion is Captain Glander. The captain was especially appointed by Chief Steinkellner, as the chief said, "to keep the boys from blowing the roof off."

But as these lines are written the boys are planning to go on the air again in a few days. They are going to continue the good work to which the captain gave the impetus. They feel he would be pleased over in the Beyond to know that his comrades are carrying on the job to make people happier. And the listeners over WHAD, the Marquette University-Milwaukee Journal station will be glad to welcome back a feature of the programs they have sadly missed.

There's a corking good quartet and whoever thinks a smoke eater can't sing will learn something to his advantage by listening over WHAD when Tom Murphy, Joe Ross, Adolph Ketelholm and Tom Dugan are announced. Boy, they have volume and distance and harmony and they're there like a



four-eleven in a lumber yard or business district. Milwaukee has given a hint to broadcasting stations in other cities. Why not utilize the talent that sits in the stations day after day between fires? The boys like the fun of producing the music and the fans like to hear them.

Of course WHAD does not depend on the firemen for all of its talent. It seems that Milwaukee is simply overflowing with good music and good cheer. It is one of the traditions of the town. In the West Side Turner hall the old Turnverein has carried on its regular Sunday afternoon concerts for the past seventy-two years. These concerts are now broadcast by WHAD. One of the most popular Turnverein soloists is Helen Schnapp, a soprano with unusual microphone ability.

The four o'clock programs have become especially popular, not only in the city, but in the rural communities and the surrounding towns. Wisconsin

On Sunday afternoons comes the voice of Miss Helen Schnapp (left) over WHAD from the Turnverein while on Mondays at 4 may be heard Miss Jean Gora (below).



When Milwaukee and her neighbors dance at home they tune in the very excellent Stroebel dance orchestra (below) which is versatile, presenting not only the latest jazz but the more classic steps preferred by the sedate.



At left is the company of syncopating firemen preparing for a run to the WHAD studio. The late Captain Glander is seated with accordion. Everett Williamson (right) baritone.



sin is famous for its cheese and there are sections where its manufacture is the sole industry. From Monroe, where the annual cheese fair is held, comes a yodeling quartet which is one of the features of this four o'clock program. All four members of the quartet are natives of Switzerland. During the international tests they sang in the tongue of their fatherland.

Miss Jean Gora, dramatic soprano, and Everett Williamson, baritone from Racine, are two of the popular soloists. Miss Bertha Schaller is one of the violin soloists.

Home parlor dances for small parties are very popular in the vicinity of Milwaukee, and this is made possible in many homes by the Stroebel dance orchestra heard through the Radio receivers from WHAD of the Marquette University-Milwaukee Journal. This orchestra is up to the minute with the latest dances and also furnishes more formal numbers for the more sedate dancers. It draws the line on the remote Ford toddling. From the Marquette University studio may be heard the concerts of the Adelphi orchestra.

A great deal of comment has been made concerning the remarkable clarity of music as it has been picked up by remote (Continued on page 8)

“Yo-ho-ho!” Sing Pirates Bold

PIONEER BROADCASTER, WJAZ, Defies “Autocrats of the Air,” Makes Minion Walk Plank and Lays Down Brass Band Broadside on Canadian Wave.

FOREWORD: Lieutenant Commander Eugene F. McDonald, commissioned by the United States Navy, sea rover and adventurer into the far north, where he rendered valuable service in the cause of science, has been declared an air pirate by the forces of the government. Returning on his good ship Peary, which had carried him to within eleven degrees of the pole, he received scant courtesy from those who are in power in Washington. He launched his new broadcaster from the Chicago quays, and although she took the air under that pioneer pennant, WJAZ, she was allotted but two hours out of a week's schedule. Chafed by these restrictions, the Commander snapped his fingers at the Department of Commerce and appropriated a Canadian wave which he deemed would cause little grief to any outside the department at Washington. He was then charged with piracy of the air, threatened with a felon's cell and the confiscation of his station. And so our story begins.

HIGH in his conning tower the thirteenth district inspector crouched over his wave meter tester and scowled. And the longer he looked the more he scowled until finally the black cloud on his brow burst into a storm of fury. “They're off again!” he snapped, sharply and vividly like chain lightning. “Who?” inquired an assistant with glazed hair and slightly worn patent leather shoes, who stood at a respectful distance and toyed a pencil between his pearly teeth. “Never mind, 'tend to your work. I knew it, expected it, they're pirates, air pirates. I told you to get Francis. Why haven't you gone? Must I stand here yelling at you all day to get you to do anything? Go! Go! Great jumping Jehosphat, when in the name of Christopher Calliope Columbus—” The inspector was beuding over the meter tester. “Aye, aye, sir!” A fluffy-haired blond, note book in hand, jaws oscillating, stood at attention.

“Very well, Francis. Sit down—and give your chin a rest.” The fluffy-haired blond drew up a chair and paused, before sitting, to deposit his quid of Jolly Tar in the tall brass goboon at the end of the table. “Aye, aye, sir,” he said, solemnly wiping the corners of his mouth with a sepia-tinted hankerchief. “What is it, sir?” “Told you they're off! They're off! How many times—” “Yes sir. Yes sir, I was just lookin' at the tape myself. It's only the first race. I gotta bet on Jazzbaby for place in the fifth. I know a bookie—” “Don't Jazzbaby me! To blazes with the races! I'm talking about these almighty pirates—” “Beg pardon, sir. With the start they're gettin' the pennant oughta be a—” “I said WJAZ! WJAZ! They're off their wave. They've pirated a foreign wave and the chief has forbidden. Take a letter; no, a telegram. You chew too much, Francis. Try stogies but don't swallow them. Are you writing that? For Pete's sake, amen!” “Aye, aye, sir!” Then Francis took the telegram addressed to the chief.

In his high paneled office the chief, in Washington, was dictating orders to six stenographers. Three boys stood in a line to carry messages. The chief opened the telegram from the inspector. In one bounce he hit the ceiling. Coming down to port on the edge of his chair he began to sway and his mouth flew open. “Who am I? What am I? Why do I sit here? I regulate the air and it is not regulated. Who cares



Baritone broadside from the pirate broadcaster, WJAZ, by Hivoltz Smith.



what I say? Am I to be laughed at? What?” “Aye, aye, sir.” The first boy, not being quite certain what he should say, followed the usual formula. “What? Even you!” The chief might have been Julius Caesar speaking to Brutus as the latter wiped on his bloody blade on his sleeve. “But I shall see who's who and what's what and who is running this air. I'll have that pirate thrown iron!”

Pilot house (right) of the WJAZ, where the buccaneering crew made ready to swoop down on their unsuspecting prey. And here they are (below) ready for the dirty work. From the left, George Hivoltz Smith, mate; R. Cutthroat Herriok, engineer; Sharktooth Matthews, announcer; Dagger Price, studio operator, and Skull-bones Selleck, station operator. All set for action.

There were sou of merriment ab trophy bedecked cabin. Hivoltz Smith, the WJAZ as Captain McDonald paced back and forth across the floor of his craftiest buccaneering baritone on the seven ether seas. (Continued on page 8)



VARIETY OF DISHES MADE OF MACARONI

SPAGHETTI CAN ALSO BE PREPARED MANY WAYS

Miss Betty Crocker Gives Recipes and Supper Suggestions for These Very Tasty Foods

Save your breath, and do you regularly listen for Betty Crocker's Radio talks? Miss Crocker is nationally known as a home food specialist...

By Betty Crocker

IT IS because so many of my Radio audience seem to be unfamiliar with really good macaroni and spaghetti dishes that I like to talk about them often. There is so much to say about these foods and we have so many delicious Gold Medal recipes for them that I simply can't resist giving you a macaroni and a spaghetti dish for our lesson today.

HOUSEKEEPERS GET ATTENTION OF KOAC

CORVALLIS, Ore.—Afternoon broadcasts for the homemaker were begun recently by Station KOAC, the Oregon Agricultural college here, under the title "The Housekeepers' Half Hour."

Meat is used with macaroni in any number of ways. An escalloped dish of left over meat may be prepared by using layers of cooked macaroni or spaghetti with the layers of meat and gravy...

Macaroni Salad

Another unusual dish is macaroni salad. That may not sound good to you, but I assure you it is delicious. Combined with salmon and seasonings it makes a very pretty salad. Other delicious combinations you could use are apple, or green pepper, chopped cooked eggs, or fresh tomatoes with a little chopped celery and sweet pickle.

The macaroni and salmon loaf makes a good one-meal dish that is especially nice for a luncheon or supper dish. It is cheaper than meat and potatoes and takes the place of both. Here is the recipe: 1 cup milk, 4 tablespoons cream, 2 cups stale bread crumbs, 2 eggs, 1 cup cooked macaroni cut in pieces, 4 tablespoons melted butter, 1 teaspoon salt, paprika.

Method: Heat the milk and bread crumbs together. Stir in the slightly beaten egg yolks. Add macaroni, salmon, cream, butter and salt. Either canned or cooked salmon may be used. Fold in the

(Continued on page 17)

SHORT WAVES

By Marcella

Jean Sargent, WHT's Jean, is not married. She is just as nice looking as her voice sounds; yes, and her disposition is best typified by the two words—good scout.

Yes, K. H. R. Emmet and Dick Long, both of WCCO, Gold Medal fame, are brothers. Dick is familiarly called "the blond Apollo" and he conducts the Nankin cafe orchestra. Emmet is portly and a trifle ruddier. He conducts the Golden Phensant inn orchestra. The two cafes are directly across the street from one another.

As for H. I. E., try again. "The Merry Old Chief," WJR, and Phillips Carlin and Leslie Joy, of WEAJ, all are "handsome as they sound" but married. Sorry they sound single.

Jack Robertson, one of WFAA's "Early Bird" entertainers, is twenty-nine years old and single. Besides that, answering M. A. D. calls, he is extremely modest and bashful. Fortunately every time he gets a mash note. He is quiet in his habits and spends most of his time with his Hawaiian guitar which he loves devotedly.

Wendell Hall, the "Red-Headed Music Maker," is in New York on 453 meters. WJZ. He is billed there for three weeks, two times a week, beginning March 15 and ending this week. Don't know whether after that. Wendell started with is ukulele ditties over KYW "back when"—many years ago—and has been a tremendous success ever since.

Loss of Avocirdupois Cause of WLW Worry

Station Fears Women May Get Too Thin

CINCINNATI.—One of the weighty problems of the Crosley WLW station here, is the possibility of its women listeners becoming too thin. This situation has arisen through their participation in the setting-up exercises which William N. Stradtman, physical instructor of the Cincinnati Y. M. C. A., broadcasts every morning, except Saturday and Sunday, at 7:30 Central time.

While many of the women devotees to the art of physical exercise have reported that they have lost weight, others have reported gaining weight through the same exercises. But it is the ones who have lost their extra fat who are concerning some physicians who believe too much displacement of fat is not healthy, as bodies need fat as much as other things which go to make up a human being.

lele ditties over KYW "back when"—many years ago—and has been a tremendous success ever since. Probably his best-known composition is his "Rain" song. He courted his sweetheart—now Mrs. Hall—over the air and was married via the WEAJ chain. Tall, red-headed, even dispositioned, pleasant and inclined to soften his speech. Has cute little red mustache and a big raven coat. Mrs. Hall is best described as a jolly bunch of smiles.

Nick Lucas, the crooning troubadour, formerly a member of the WEBB Orpheo orchestra, is now going the rounds of the Orpheum vaudeville circuit. Heard him a week ago in Chicago and he stopped the show. Don't know when he'll be back on the air, but of course he's on the records.

WBAP's "Sunflower Girl" goes under the real name of Bessie Coldiron—a rather chilly cognomen for such a beautiful, talented, Titan-haired Miss of twenty years. The Hired Hand describes her as all a bachelor could desire, and the H. H. is an experienced recommender.

Who was it wanted to know if Graham (Continued on page 17)

WOMEN'S PROGRAMS INDEX

Table with columns for dates (Saturday, April 3; Sunday, April 4; Monday, April 5; Tuesday, April 6; Wednesday, April 7; Thursday, April 8) and radio stations (Eastern, Central, Mountain, Pacific). Each entry includes station call letters, time, and program title.

be eleven and we'll never know who they are until we get a light."

"Who can they be?" whispered Cousin William Caryl.

"Who am I to say?" replied Aunt Helen Holmes. "All I know is I been actin' a lady ever since I came into this den of evil. An' all I'm prayin' is I get out again."

Her voice cracked for all that she spoke in the mechanical sing-song of the professional extortioner. It was a whimper toward the end.

"Murderers, probably, Cousin William," she said. "Murderers come to kill us all just like Cousin Peleg Turner said they would. Listen . . ."

"I can't hear anything," observed Cousin William. "Nothing but this bull of Basha under the table cursing about somebody stepping on his fingers."

"Keep close to me, Cousin William, keep close to me, I'm said. Pray for a light, Cousin William. Pray for a light."

"If some of you people will let me up we'll see what's going on here," announced Tolliver, exultantly. "I think I've found the matches. Leggo of me, Leggo . . ."

His voice choked off in a surprised gurgle and there came a crash of a breaking chair and a shriek.

"Two can do that," he gasped a moment later, his voice strained until almost unrecognizable. "There's one for you." A second crash sounded through the room.

"The murderers," screamed Aunt Helen. "They're killing him."

"Leggo my neck," commanded Tolliver. Another upheaval shook the table and nearly overturned it.

"Quick—Mr. Ardwyn—quick—on the table. There they are. The matches—I got him now—I got him now . . ."

And then came the slipping feet on the oaken floor and the labored breathing of the fighting men.

"I have the matches," shouted Ardwyn. "Hold him a second . . . just a second . . . We're eight to two . . ."

"Don't light that match!" came a harsh command from close to his elbow. "I'll shoot to kill at the first flicker."

While waiting for the amazing complications to be brought out in the next installment of this remarkable Radio mystery story, try to figure out these questions: Was it the odor of ether that Tolliver thought he smelled? Whose hand held the flash light? Who fought with Tolliver and threatened the first to strike a match? Don't miss a line. Get the next issue as soon as it appears.

LEGION RADIO POST MEETS EACH WEEK

Veterans of World War Not Living Near Organized Chapter Are Eligible for Membership

OKLAHOMA CITY, Okla.—The only American Legion Radio Post in the world holds its weekly meeting every Saturday night at midnight through Station KFBP, here. The post is convened and adjourned in due form and for an hour business is transacted and entertainment enjoyed.

Anyone who saw service in the World war, and who lives where there is no regular post, is eligible to membership. The dues are the same as those of a regular post, \$3.00 per year, giving the membership certificate, the American Legion weekly and the Oklahoma legionaire.

Get On Killer's Trail and Follow It to End

Last Chapters of Mystery Play Hold Many Clues

Do your mystery story sleuthing early—but not too early.

Many last chapters to "A Step on the Stairs" have already been reviewed by the Mystery Story Editor of Radio Digest. But they are peculiar. No one can, from the facts already in hand, reasonably draw safe conclusions as to the real culprits, nor as to the innocents or guilt of the characters thus far introduced.

Some big surprises are in store for the final installments. Thrills of a new kind, not yet presented, will startle both readers of the story as it now is appearing weekly in Radio Digest and listeners of the drama, as it is heard from the various broadcasting stations.

Take this tip. Study every fact thus far revealed from the first chapter to the current issue. Compare the data thus obtained with the new facts to be developed. Match them one against the other. And when you have all of this material together draw your deductions and write that chapter. It's a business proposition. Get it right and Radio Digest will give you a share of the \$500 reward.

Get the murders of Jeremiah Turner, lead or alive, and collect the reward!

\$500 in Gold FOR THE SOLUTION OF "a Step On the Stairs"

REPRINTS NOW AVAILABLE

SO MANY people are attempting to win part of the \$500 in Gold prizes which are being offered for solutions to "A Step On the Stairs," a reprint of the first four installments has been printed and may be had for the nominal charge of twenty-five cents, in coin or stamps, to cover the cost of handling. Address your order to the Mystery Story Editor, care of Radio Digest.

The chosen stations, which are broadcasting "A Step On the Stairs," in Radio play form, are given on page eleven. The days and the hours are listed.

THE PRIZES

The prizes are seventeen in number. First prize is \$250; second prize is \$100; third to seventeenth prizes inclusive, are \$10 each. In the event of a tie for any prize offered, a prize identical in all respects with that tied for will be awarded to each tying contestant.

HOW TO WIN A PRIZE

Nine installments of Mr. Casey's story will be published consecutively

each week. The first appeared in the February 27 issue. His tenth and final installment will not appear until the prize winning solutions have been selected by the judges. The solution nearest correct, that is, nearest to unraveling the mystery accurately, will win. The method of preparing the solution—its neatness, legibility, etc.—shall be considered.

RULES OF CONTEST

1. Solutions must be received not later than midnight of Saturday, May 1. The ninth installment of the story will appear in the April 24 issue. The author's intended and final chapter will appear in the May 15 issue, together with the announcement of the winners' names.

2. The contest is open to everyone except employees of Radio Digest and their families.

3. Contestants pay no fee and need not be subscribers to Radio Digest. Solutions, however, must be written upon one side of paper.

4. The decision of the judges, to be named later, will be final.

Radio Club Notes

The committee back of the movement to establish a Radio Listeners' club in Evansville, Indiana, communicated with Radio leaders of Cleveland and Indianapolis to obtain detailed information so they could go ahead right. Edward Birdsell, at the head of the Listeners' club of Cleveland, was asked for aid and gave it gladly. Station WFEM of Indianapolis, has also helped the cause. On receipt of exact data from various other sources, the first meeting will be called for adoption of a constitution and election of officers. Indications are that membership will quickly run into the hundreds.

"Montgomery for Better Radio Reception" is the enterprising slogan of the Montgomery (Pa.) Radio club. This club was organized March 3, with 150 members at the first meeting. The president is Joseph Sheiley and the vice-president is Harold E. Miller. It is surprising how much Radio interest and desire for improvement in receiving conditions there is in any locality, once somebody starts the ball rolling for the formation of a club.

Janesville (Wis.) Daily Gazette is organizing a club to decrease radiation in that locality and has now joined the long list of newspapers reprinting the Radio Digest blooming series.

Of the thousands who have sent in "I Won't Bloon" pledges, we must put down Harold Shields, Petersburg, Alaska, as being the first to help the cause from this far away state. Antonio Gomez is our first member from Havana, Cuba. Our Mexican friends seem to have been too busy settling who gets the oil profits to join as yet, but there is still hope.

Pennsylvania certainly came through this week and told us what it was doing. Even the dealers have organizations interested in improving Radio reception and recently the Williamsport (Pa.) Radio Dealers association, at one of its weekly dinner meetings, invited Lewis W. Heath, manager of the Pennsylvania Power and Light company, to tell them what his company was doing to eliminate any interference it may have been causing. George Knoll, trouble shooter for the power company told those in attendance of several interesting cases that had been settled satisfactorily.

Getting back to the home town for a moment. Compelled by its rapid growth to seek larger quarters, the Broadcast Listeners' Association of America, Inc., has located in suite 927, 431 S. Dearborn street, Chicago. It is claimed for this organization that it is America's original Radio fans' club, and there is no doubt of its being the largest outfit of its kind. Officers or members of the staff will be on duty every business day to receive callers and answer mail inquiries. A private branch exchange, Harrison 3527-3523, provides for prompt phone service. The B. L. A. now has local chapters in 23 states. The yearly fee for associate membership is one dollar, and five dollars is the cost of an active membership.

YO-HO-HO SING PIRATES

(Continued from page 5)

sang clear above the rest. It was the "Pirate's Dream." And thus he sang: "Fifteen men on a dead man's chest—Yo-ho-ho and a bottle of rum; Bloopers and static had done for the rest—

Yo-ho-ho and a bottle of rum. The tenor croaked at the boss's mike, The boss's brained by a grounding spike; The bass's throat was sprained belike, It had been gripped by fingers ten.

And there they lay, all good, dead men Like break 'o' day in a boozing ken— Yo-ho-ho and a bottle of rum."

Then, as the captain paced back and forth, there came a tapping at his cabin door.

"Come in," he said in his deep sea voice and paused expectantly. A tall, heavy-set man in a long raincoat, a drooping black hat and number 14 shoes crushed his way into the room. Striding boldly up to the captain he demanded:

"Are you Captain McDonald, the skipper of this WJAZ?"

"Aye, sometimes I have been so called," smiled McDonald.

Portwith the stranger pulled from his pocket a summons and began to read.

"And you are therefore commanded," he was reading, when the captain interrupted: "Forsmooth, where do you get that stuff I am to be commanded, aboard my own brig?"

The minion continued to read without so much as lifting his eyes:

"You are finished?" asked the captain at last. The man tendered the folded paper. The captain struck a gong. Two bearded giants stepped into the room, and as villainous a looking team as ever you might find from Yucatan to Timbuctoo. They were armed with cutlasses and dirks and between the two of them they had but two good eyes, the others doubtless gouged out by some drunken brawl or fight on tempest waves.

"Escort the gentleman from the station," ordered the captain. There was the merest shade of a twitch of the commander's right lid and an arch of the brow.

"Aye, aye, sir," that ominous response. An understanding flash passed between those two widowed eyes. The men stepped forward and took the minion by either elbow. He recoiled for his hip but his hands were caught in lion jaw grips and he found himself moving briskly, his feet scarcely touching the floor. They steered him to the plank that jutted out forty fathoms above the bottom of the ether sea. A hatch door slammed, the plank flipped and the minion stepped into space, floating downward to the waiting scullions who stood ready with mops and pails.

"Wave ho!" Sharktooth Matthews, the lookout announcer, called down from the forward tower. Captain McDonald stepped to the rail in front of his cabin.

"What wave, ho?"

"A 'C'; she is makin' it at 329.5 meters. Leastwise, she flies the Union Jack."

"We'll take it," replied the captain. "Put about, north'west and nail her square. Bring out the forty-eight brasses and tell Hivoltz to let go when ready."

WHAT SHOULD RADIO RECEIVER AVERAGE?

HOW MANY STATIONS DID YOU GET LAST YEAR?

Conditions Surrounding Reception Affect Answers, But Here Are Few Marks for Records

How many stations should a set receive? What is the average? What are a few of the records?

These questions are very popular with listeners. Probably fans with less than one year's listening experience are most apt to ask them, but all are interested.

As a matter of fact, so many conditions enter and affect the answers that no generalizations can be made. Location, congestion of broadcasters, type of set used—all must be considered.

The minimum number of stations received by a good set in an average locality, however, should be about eighty. However, if you haven't eighty stations on your log, don't take your set back to the dealer and complain. More than likely conditions are set against you and it is not the set's fault.

During the last year, without solicitation, Radio Digest has received a number of records of reception from its readers. Some of these lists are truly records. Others were not. Would you like to know what some of these fortunate listeners were able to do?

- Here are the twelve best:
1. J. E. O'Brien, 28 Byer Road, Milton, Mass., has logged 402 stations, using a 3-tube regenerative set.
 2. J. M. Conrad, Ottawa, Kans., 395 stations, 3-tube conventional.
 3. Mrs. V. A. Johnson, 150 Orchard St., Baraboo, O., 345 stations, 3-tube neutrodyne.
 4. F. W. Doherty, Lyons, Colo., 328 stations, 3-tube radio frequency.
 5. Hayden Auto Co., West Newton, Pa., 305 stations.
 6. A. A. Franzen, Box 100, Cedar Rapids, Neb., 296 stations.
 7. L. S. J. Crause, 22 South St., Summit, N. J., 285 stations.
 8. F. E. Nelson, 1009 Ashmead St., Pittsburgh, Pa., 272 stations, single tube regenerative.
 9. Howard Howell, 5814 Kimberly Ct., Detroit, Mich., 241 stations, single tube regenerative.
 10. W. A. Leary, Montreal, P. Q., Canada, 235 stations.
 11. Raymond McGillis, 1729 Iowa Ave., 221 stations, single tube regenerative.
 12. Ross Hensch, Route 7, Baraboo, Wis., 203 stations, single tube regenerative.

With a crash and a glare all forty-eight brasses, the woodwinds and drums of the staff band hurtled salvo after salvo over the "C 329.5."

"A hit!" shouted the captain. And the cry echoed down the ether lanes, from Hudson Bay to Cape Horn.

"Pirates! If this be piracy, then are we pirates and pirates we shall continue to be until the crack of doom," he added.

And the day came when the captain was indeed haled before the high court.

"With apologies to the Honorable David Lloyd George," said he, "I ask, what finger wrote the law that makes us pirates in the free air of America?"

Thus the matter stands to this day, with laws and laws and proposals of laws before the national congress and the state. But WJAZ still sails the ether seas and she rides the waves as she wills. The inspectors and the chiefs still bluster and fume but beyond that there is little complaint to be heard, for the pirate captain takes good care not to intrude obnoxiously into the homes of the listeners.

FIREMEN TURN ON MIKE

(Continued from page 4)

control from the famous Saxe Wisconsin theater through WHAD. The explanation seems to lie in the generous distribution of microphones placed where they will pick up the little stray notes generally lost in the average theater broadcast. It is claimed that twenty-one microphones have been placed in carefully tried out positions so that every tone is recorded and reproduced in the receiver.

The most distant point at which WHAD has been heard is Tahiti, 6,000 miles from Milwaukee. The management early established a rule prohibiting the announcement of names of persons who write in for request numbers or similar purposes.

But, have a heart; don't ever start a fire you can't put out while the fire laddies of Milwaukee are on the air, that is, if it is your intention to turn in the alarm through a Milwaukee station. Because if you should, the chances are the music would stop so suddenly you'd think it was your receiving set that was ablaze and the rest of the listeners never would forgive you.

Upton Sinclair Would Have State-Owned Radio Station

SACRAMENTO, Calif.—A state newspaper, a state bank and a state Radio broadcasting station would be established by Upton Sinclair, the Pasadena author, if he were elected governor, the recently announced Socialist candidate for that office announced in a formal statement of his platform received in Sacramento.

RADIO PLAYS IMPORTANT ROLE THIS

CLASSICAL CONCERTS INDEX

Saturday, April 3			Sunday, April 4			Monday, April 5			Tuesday, April 6		
Eastern	Central	Pacific	Eastern	Central	Pacific	Eastern	Central	Pacific	Eastern	Central	Pacific
6 p.m.	7 p.m.	8 p.m.	7 p.m.	8 p.m.	9 p.m.	6 p.m.	7 p.m.	8 p.m.	6 p.m.	7 p.m.	8 p.m.
WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.	WGN, WEAR, WBEA, WRDQ.



"Ghosts of the Air" are the Phantoms of KPFC, below novel fashion every other Saturday night from the top of Houston, from the skyline studios of the Houstonettes, the tall and stately blond of vaudeville to prove that she and her companion are very much at and the New York Oratorio society appear over t Ethyl Hayden, left, will be the soprano soloist. Gra is the concert pianist who directs the Sunshine

Headlines Today
 7:30 p. m. 8:30 p. m. Mountain Pacific
 WBEI (318.5m-800k) Wellstar President.
 WBEI (323.1m-940k) Old-Fashioned concert.
 KEEZ (467.5m-740k) Music Society concert.
 KMOX (350.2m-1070k) Mountain and Plain songs.
 KPFB (374.8m-800k) Grand opera songs.
 WJAZ (493.3m-710k) Crescendo instrumental trio.
 WJAZ (383.5m-1000k) Memphis club.
 11:45 10:45 9:45
 KY35 (371.5m-800k) Hot Springs Harmony twins.
 1 a. m. 12 10
 KPWB (325m-1100k) Warner Brothers' frolic.

WFL, Philadelphia, Pa. (394.5m-760k), 6:20 p. m. Edouard Straford concert orchestra; 7:30 p. m. Jerome Kollekian; 7:45 p. m. Philadelphia half orchestra.
 WGBB, Clearwater, Fla. (205.3m-1100k), 6:30-7:20 p. m., dinner music; 8:30-10, Carolina Lee; 8:30-10 p. m., piano; 11:45-12:30, 24-hour orchestra.
 WGR, Buffalo, N. Y. (315m-940k), 6:30 p. m., Gospel Melodists; 8, WPAF; 10, Wills Wallopner stereo program; 10:30, Tito Bros. in "Tom Lee Club" program; 11, Billy McErdenn presents the J. O. Brennan serenades.
 WGY, Schenectady, N. Y. (370.5m-790k), 7 p. m., Esplanade theater; 8:45, Rochester.
 WHN, New York, N. Y. (361.2m-380k), 7:30 p. m., Hotel Pennsylvania concert orchestra; 8:30, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Wednesday, April 7

Headlines Today
 7:30 p. m. 8:30 p. m. Mountain Pacific
 WBEI (318.5m-800k) Wellstar President.
 WBEI (323.1m-940k) Old-Fashioned concert.
 KEEZ (467.5m-740k) Music Society concert.
 KMOX (350.2m-1070k) Mountain and Plain songs.
 KPFB (374.8m-800k) Grand opera songs.
 WJAZ (493.3m-710k) Crescendo instrumental trio.
 WJAZ (383.5m-1000k) Memphis club.
 11:45 10:45 9:45
 KY35 (371.5m-800k) Hot Springs Harmony twins.
 1 a. m. 12 10
 KPWB (325m-1100k) Warner Brothers' frolic.

WFL, Philadelphia, Pa. (394.5m-760k), 6:20 p. m. Edouard Straford concert orchestra; 7:30 p. m. Jerome Kollekian; 7:45 p. m. Philadelphia half orchestra.
 WGBB, Clearwater, Fla. (205.3m-1100k), 6:30-7:20 p. m., dinner music; 8:30-10, Carolina Lee; 8:30-10 p. m., piano; 11:45-12:30, 24-hour orchestra.
 WGR, Buffalo, N. Y. (315m-940k), 6:30 p. m., Gospel Melodists; 8, WPAF; 10, Wills Wallopner stereo program; 10:30, Tito Bros. in "Tom Lee Club" program; 11, Billy McErdenn presents the J. O. Brennan serenades.
 WGY, Schenectady, N. Y. (370.5m-790k), 7 p. m., Esplanade theater; 8:45, Rochester.
 WHN, New York, N. Y. (361.2m-380k), 7:30 p. m., Hotel Pennsylvania concert orchestra; 8:30, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Eastern Time Stations

CNRO, Ottawa, Can. (135.5m-600k), 8 p. m., Chateau Laurier concert orchestra; 9, studio program; Chateau Laurier dance orchestra.
 KOA, Pittsburgh, Pa. (309.1m-670k), 6:30 p. m., dinner concert; 8:30, concert, Pennsylvania railroad.
 WMAR, Richmond, N. H. (315.5m-954k), 7:30 p. m., Music Made-DeLuxe; 8:30, Alanand Lombardi; 9:30, Auguste Jaqu

"A BUCK ON LEAVE" AT WHT THURSDAY

Thursday, April 8

GENERAL TALKS AND SPEECHES

WTAG, Worcester, Mass. (267.7m-1120ks), 6-30 p. m., WEAF, Hartford, Conn. (475.9m-630ks), 6-30 p. m., Hotel Radio Iro.

WWJ, Detroit, Mich. (352.7m-650ks), 6 p. m., dinner concert; S. WEAF.

Central Time Stations

KFRU, Columbia, Me. (355.9m-750ks), 6:15 p. m., dinner music.

KLDS, Indianapolis, Mo. (442.9m-690ks), 8 p. m., KMA, Sheboygan, Wis. (229.2m-1100ks), 8:15 p. m., dinner hour program; 9-11, Dolomieu Orchestra's dance orchestra.

International Radio program: musicians from Jerusalem, Amritia, Arabia, England, Norway, South Sea Islands, American Indians.

Saturday, April 3

Eastern	Central	Mountain	Pacific
7:25 p. m.	6:25 p. m.	6:25 p. m.	4:25 p. m.
WRC (468.5m-640ks) "The Work of Congress."	8:15	8:15	5:15
WIP (568.2m-690ks) "The Wonders of the Microscope," Dr. Henry Luffman.	8:30	8:30	5:30
WTTG (473.9m-630ks) Talk, Ernest Thompson Seton.	9	9	6
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.	9:30	9:30	6:30
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Wednesday, April 7

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WELP (348.5m-610ks) Talk, Prof. Ellen Fitz Paulson.	8:15	8:15	5:15
WCAIF (377.6m-1000ks) "Protecting the Health of School Children," Dr. W. S. Cornell.	8:15	8:15	5:15
WV (451.3m-690ks) Zoological society report.	10:30	9:30	7:30
KWSZ (348.5m-600ks) Book reviews, Alice Lind-say Webb.			

Monday, April 5

Eastern	Central	Mountain	Pacific
8 p. m.	6 p. m.	6 p. m.	4 p. m.
WDAP (385.9m-630ks) Address, Edgar A. Linton.	8:30	8:30	5:30
WHPA (475.9m-630ks) "A Trip on the Crimson Limited."			
WAHG (315.6m-690ks) "A Visit to the Vatican," Major Det. Ackinson.	11	10	8
WV (451.3m-690ks) "Virginia Folk Lore," Dr. Douglas Freeman.			

Thursday, April 8

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WJCB (470.5m-790ks) WJCB book club, William F. Jacoby.	8:15	8:15	5:15
WSP (325.0m-920ks) Art talk, W. S. Jones.	9:30	8:30	6:30
WV (447.5m-670ks) U. of C. vs. U. of Wyo. debate.			
WVIC (468.5m-640ks) Pollutant situation, Frederick W. Wile.	12	11	10
KPL (428.2m-700ks) Federal government, Warren Olney, Jr.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7 p. m.	6 p. m.	6 p. m.	4 p. m.
WQAW (529m-570ks) Music review, Heater Bron-bron Cooper.	7:30	6:30	4:30
WFB (372.6m-1100ks) "Commercial Flyin'." C. C. Jones.	7	6	5
WV (447.5m-670ks) "Idealism and Work," Rev. George T. Linsley.	8:15	7:15	5:15
KDKA (309.1m-670ks) "Why I Am a Packer."	8:30	7:30	5:30
WCAI (336.9m-690ks) "Johnson and Hamilton," Dr. George Weidner.	9:15	8:15	7:15
WEG (465.2m-710ks) "Alumni in Duron," W. D. Duron.	9:30	8:30	7:30
KELJ (405.2m-740ks) "Romance of Santa Fe Trail," Gladys De Witt.			

Tuesday, April 6

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WV (447.5m-670ks) "Acoustics," U. S. Air service.			
KMTR (285m-1000ks) E. P. Barclay, African ex-plorer.			
WMAQ (447.5m-670ks) Book talk, Harry Hanson.			
WV (451.3m-690ks) Grand tour, England.	10:30	9:30	7:30
WCCO (416.4m-720ks) "Outdoors in Minnesota."			

Mountain Time Stations

CFAC, Calgary, Can. (435.8m-680ks), 9-11 p. m., Canadian National railway program; Bert Ellington, tenor, CNR orchestra.

CHRC, Calgary, Can. (435.8m-680ks), 9 p. m., studio program, CNR orchestra; Bert Ellington, tenor.

KXFC, Colorado Springs, Colo. (252m-1200ks), 8:30 p. m., brass quartet; Arthur L. Murray, baritone; Mrs. J. C. Young, contralto; Sarah McQueen, pianist.

KOA, Denver, Colo. (322.4m-820ks), 6:30 p. m., dinner concert, Brown Palace string orchestra.

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WPA (475.9m-630ks) Hawaiian recital.	8:15	8:15	5:15
WBAI (345.6m-1200ks) Baltimore Maestri orchestra.			
WWT (352.7m-830ks) C. T. S. and his gang.	8:30	7:30	5:30
WV (447.5m-670ks) Special program.			
WPA (475.9m-630ks) Songs from different operas.			
WNMT (358.0m-840ks) Radio Raiders.			
KPHS (374.8m-800ks) Request night.			
WV (399.5m-1000ks) Ballad night.			
WV (447.5m-670ks) Vanetian Melody artists.			

Wednesday, April 7

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Thursday, April 8

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Central Time Stations

KFRU, Columbia, Me. (355.9m-750ks), 6:15 p. m., dinner music.

KLDS, Indianapolis, Mo. (442.9m-690ks), 8 p. m., KMA, Sheboygan, Wis. (229.2m-1100ks), 8:15 p. m., dinner hour program; 9-11, Dolomieu Orchestra's dance orchestra.

International Radio program: musicians from Jerusalem, Amritia, Arabia, England, Norway, South Sea Islands, American Indians.

Thursday, April 8

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

Friday, April 9

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	6:30 p. m.	4:30 p. m.
WV (447.5m-670ks) "The Wonders of the Microscope," Dr. Henry Luffman.			
WCCO (416.4m-720ks) "Ereosdo Philomelos," Rev. Roy L. Smith.			
WMAQ (447.5m-670ks) Photologist, Dr. Max Henius.			

During the winter months when fans seek the comfort of the fireside on Sunday evenings and turn on the Radio WEAF, Cleveland, has been putting on a special fireside hour program. Old-time songs, favorite hymns, and operatic selections have been contributed by the WEAF mixed quartet. The members of this group are from left to right: Ray Donaldson, baritone; Edith McArt, contralto; Leona Brown Woodcock, soprano; Albert Downing, tenor.



Friday, April 9

WGN, Chicago, Ill. (302.8m-990kc), 6:30-8:45 p. m. Drako concert ensemble, Blackstone string quintet, 8:45, old-time favorites; 8:55-7, the Millie; 8:55-9:15, WCAP; 8:58-9, concert; 9:20-9:30, WEAF; 9:30-10, studio program; 10, 8:50 p. m. Home; 10:10, old-time favorites; 10:20, The Play Shop; 10:45-11, studio ensemble.

WHAS, Louisville, Ky. (391.8m-750kc), 7:30-9 p. m., Louisville Music and Radio company.

WHP, Kansas City, Mo. (363.8m-830kc), 7-8 p. m., Sorensen Radio orchestra, popular music.

WHD, Des Moines, Iowa (520m-378kc), 7:30-9 p. m., program. Radio University conservatory of music; 11:12, Youngers Tea-room dance orchestra.

WHT, Chicago, Ill. (595.8m-750kc), 8 p. m., classical program; dance music vocal; Al Carnoy; Grayling's string trio; Helen Rank, pianist; Charles Hines, bass; 8:55, Hay-O-Vac concert; 9:15, Chlorella Cafe orchestra; 9:20, Sunbeam Girls; 10:45, "Crucifixion"; 12, Pat Barnes and Al Campy.

WIB, Chicago, Ill. (224.8m-133kc), 8-8 p. m., dinner concert; 8:15, 9:45, Jim North, baritone; Mary Turah House, pianist; Eble Orr, soprano; 10-13 a. m., popular program; Ted Floto, pianist; Dan Dixon, violinist; the Jordan Melody strummers; Tony Corson, Ed Miller.

WJL, Muskegon, Ill. (370.2m-810kc), 13-1 p. m., Palmer House symphonic players; 1:30-2:30, organ trio; Howard C. Peterson, child artists; assembly of 1,200 children; 2:30, instrumental hour; Palmer House symphonic players; Jack Nelson; Victorians; 6:10, Billy Van; 7:30, children's hour; 7:41, 7:50, organ; Senator Harold K. Schaefer; Palmer House Victorians; Jean St. Amant; 12:30 a. m., Knights of the Burning Shield.

WLB, Chicago, Ill. (302.8m-890kc), 7:30-8 p. m., musical program; 11-11:20, Correll and Gosden; 11:20-11:30 a. m., ensemble; 1:20, instrumental hour; Palmer House symphonic players; 7:45, Ralph Brunson, organist; 8:20, College Inn orchestra; 9, Theresa Froude, contralto; Harold Van Hamer, pianist; 9:30, College Inn orchestra; 10, Ralph Brunson, organist.

WMAQ, Chicago, Ill. (347.5m-670kc), 7:30-8 p. m., Chicago theater organ; 8:10, program; 8:30, St. Francis church choir; 8:45, program; 9:30, chimes.

WMB, Chicago, Ill. (248.8m-120kc), 7-8 p. m., Veda Cecil, contralto; Rosalind Wallace, violinist; Arvid L. Anderson; Frank Buchner; 9-11, orchestra, male trio.

WMC, Memphis, Tenn. (496.7m-600kc), 8:30 p. m., Cooner's Hawaiians; 11, foxtrot.

WDAW, Omaha, Neb. (520m-570kc), 8:20 p. m., Francis Polter's band orchestra; 6:30, Gilbert Jaffy, violinist; Nat Young, pianist; Karl Zuberg, pianist; 9, Puritan program; 10:30, Frank Bockle and his Nightingale.

WOC, Davenport, Iowa (483.6m-620kc), 8:45-9 p. m., dinner concert; 8:9, Stinson Hibbards, baritone; Max Frank Elliot, organist; Harry Yeazelle Meyer, tenor; 10:20, "A Step on the Stars," Episode VI, mystery serial.

Atwater Kent Program, April 4, over WEAJ and Chain*
Albert Stoessel directing the New York Oratorio Society

- I.
- II.
- III.
- IV.
- V.
- VI.
- VII.
- VIII.
- IX.
- X.

*The WEAJ chain for the Atwater Kent hour (8:15 p. m. Eastern time; 8:15 p. m. Central time) includes WEAJ, WOO, WGR, WCAB, WCAP, WJAR, WTAG, WGN, KSD, WCCO, WOC, WSAI, WEAF, WBEI.

WOR, Chicago, Ill. (217.2m-130kc), 7 p. m., Cantor theater organ; program; 10:20 a. m., "Fanny's" Town club orchestra; Bush O'Hare's Coconut Grove orchestra; Capitol theater program; program.

WOOD, Grand Rapids, Mich. (241.8m-120kc), 9-10 p. m., Yeagle orchestra trio; 10-11, classical concert; 11-12, Robert Root Radio frolic.

WORB, Batavia, Ill. (272m-1000kc), 7 p. m., North Shore Blue.

WQJ, Chicago, Ill. (447.5m-670kc), 7-8 p. m., Ralph Williams and his Radio Garden orchestra; Sherman Levine, tenor; Florence Cano, soprano; Jean St. Anne, baritone; Christiana Giam, accompanist; 10-11 a. m., Ralph Williams and his Radio Garden; B. Lucille Long, harmonica player; Eleanor Terry, Harold Olson; Clark's Hawaiian trio; Johnny Post, baritone; Toll Radio, tenor; articles; 1-2, Ginger town.

WRR, Dallas, Texas (243.8m-1220kc), 6-7 p. m., Jack

Gardner's orchestra; 8:9, Edith Boehrer, violinist; 11-15, Bavarian program.

WSE, Atlanta, Ga. (428.5m-700kc), 8 p. m., Spelman college glee club; 10:45, American Melody artists.

WSRT, South Bend, Ind. (275.1m-1090kc), 7:15 p. m., orchestra concert.

WSM, Nashville, Tenn. (282.8m-1060kc), 8:30 p. m., Francis Cray's orchestra; 8, Vanderbilt university; 10, Lewy Frank music school.

WSOF, Milwaukee, Wis. (245.8m-1220kc), 9 p. m., Cambridge review.

Mountain Time Stations

CFAC, Calgary, Can. (435.8m-690kc), 7-8 p. m., salubri broadcast.

CNRE, Edmonton, Can. (515.8m-580kc), 8:30-10:30 p. m., studio program, Wall concert party, musical variety selections; Thelma Neiring, mezzo-soprano; diet, Ellen Fogarty and Arthur Greer; Jacques St. Yvère, tenor; Owen Connors, program.

KFAP, Colorado Springs, Colo. (250m-1220kc), 8 p. m., Russ Neum's Hammond College City orchestra.

KOA, Denver, Colo. (322.4m-930kc), 8:30 p. m., dinner concert, Brown Palace string orchestra; 8, instrumental program, Schenemann's Colorado orchestra; 8:15, program, Palace Commercial school, Denver concert quartet, vocal; KOA orchestra; Margaret Grubb, pianist; choir.

KOB, State College, New Mex. (348.6m-860kc), 7:30-8:30 p. m., musical program, students, Las Cruces Union High school.

Pacific Time Stations

CNRY, Vancouver, Can. (291.1m-1090kc), 8:30 p. m., South Vancouver choir, Mrs. James Hiltner, contralto; Mrs. C. Power, soprano; C. Hanson, accompanist; 10:30, Calaret Calicut orchestra; Belle Muller, soprano.

KFI, Los Angeles, Calif. (467m-610kc), 6:45 p. m., Radiational band; 7:30-8, Carlisle Stevenson's 11 Radio orchestra; 7:30-8, Jim, Jack and Jean trio; 8:9, Aviation organ; Tom E. Sturtevant, organist; 9-10, studio program; Mutual Moods night concert; 10-11, Stanford hotel hour.

KFOA, Seattle, Wash. (454.3m-600kc), 6:45-8 p. m., Atwater Kent boys, Doug and Fred; 7-8:15, Sherman Clay and company studio program; 8:20-9, Bobbie Lessey; 9-10, Three popular programs; 10-11, Justice Sunkler's Club Lido scenarios.

KFON, Long Beach, Calif. (332.4m-1200kc), 7-8 p. m., program; Dalton and Hoadley company; 8:9, Press-Telegram studio; 9-10, studio program; 10-11, Lonnie Beach 123; Louisa N. 1888 frolic.

KFWB, Hollywood, Calif. (252m-1190kc), 8-9 p. m., program, John Wenzel orchestra, Bill Blake, ballads, Robert Niew, contralto; soprano; 9-10, Len Nash and his Country Boss; 10-11, Warner Brothers frolic.

(Continued on page 16)

5-Room ALADDIN
\$478 NOT PORTABLE
WE PAY THE FREIGHT
You can buy all of the materials for a complete home direct from the manufacturer and save four profits, on the lumber, millwork, hardware and labor.

6-Room ALADDIN 618
Living room, dining room, 2 bedrooms, kitchen, bath, 3 other plans in Catalog, Very high grade and lumber throughout.

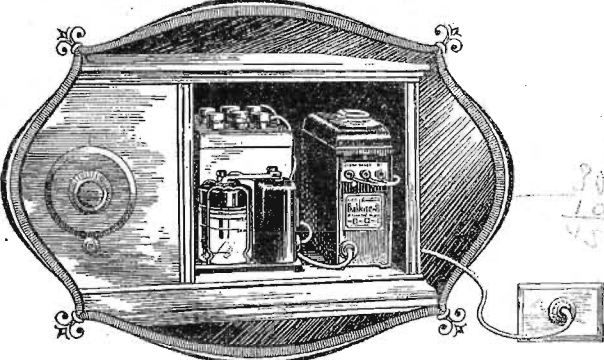
7-Room ALADDIN 765
Living room, dining room, kitchen, 3 bedrooms, and bathroom. All materials ready-cut, saving 18 percent on cost.

Story and Half ALADDIN 789
Story and a half semi-bungalow, with second floor available for 2 bedrooms. Two floor plan arrangements. Any handy man can erect these houses.

7-Room ALADDIN 956
Large living room with circle-tread open stairway, dining room, kitchen. Three bedrooms, each with clothes closet. Both on second floor.

Price includes all lumber cut to fit; highest grade interior woodwork, siding, flooring, windows, doors, glass, paint, hardware, nails, lath, roofing, with complete instructions and drawings. Freight paid to your station. Permanent Homes—NOT PORTABLE. Many styles of year-round dwellings, summer cottages and garages to choose from. Write nearest mill today for FREE Money-Saving Catalog No. 1722.

The ALADDIN Co., BAY CITY, MICHIGAN
Wilmington, N. Carolina; Portland, Ore.; Toronto, Ont.



Operate your present radio set from the light socket with Balkite "B" and a Balkite Trickle Charger

The radio set you now own will operate from the light socket. No changes are necessary. You need only add Balkite "B" at \$35 and a Balkite Trickle Charger at \$10.

Balkite "B"—the noiseless "B" power supply—replaces your "B" batteries entirely and supplies plate current from the light socket. The Balkite Trickle Charger keeps your "A" battery always at full charge, also from the light socket.

This type of installation is the last word in radio convenience and ease of operation. You always have full, even power, exactly as required by the set. And because you always have full power you secure a quality of reception possible in no other way.

Both Balkite "B" and the Balkite Trickle Charger are entirely noiseless. Their first cost is the last. Both are permanent pieces of equipment with no bulbs, nothing to replace, break or get out of order. Ask your dealer.

Prices slightly higher West of Rockies and in Canada

FAN STEEL
Balkite
Radio Power Units

Manufactured by FANSTEEL PRODUCTS COMPANY, Inc., North Chicago, Ill.

MARKETS AND WEATHER

Daily Except Sunday

Eastern	Central	Mountain	Pacific
9:30 a. m.	9:30 a. m.	7:30 a. m.	6:30 a. m.
WVAA (630m-570kc) Markets.			
8:45	8:45	7:45	6:45
RDKA (309.1m-570kc) Livestock, grain.			
10	10	9	8
WLS (344.5m-570kc) Livestock, markets, fruit.			
10:30	10:30	9:30	8:30
WVAA (475.5m-570kc) Markets.			
10:45	10:45	9:45	8:45
WVCO (416.5m-570kc) Markets.			
WVCO (320m-570kc) Opinions, grain quotations, New York and Chicago stock exchange. Livestock, weather, roads.			
WVIC (499.7m-600kc) Weather, markets.			
11	11	10	9
WVOR (410.5m-600kc) Weather, news.			
11:15	10:15	9:15	8:15
WVAG (208m-1120kc) Markets, weather.			
11:30	10:30	9:30	8:30
WVCO (416.5m-570kc) Markets.			
12 n.	11	10	9
RDKA (309.1m-570kc) Weather, livestock, grain.			
WVAP (475.5m-570kc) Weather, cattle, grain.			
WVLS (344.5m-570kc) Poultry, dairy, hogs, sheep.			
WVOS (410.5m-600kc) Livestock, poultry, news, grain.			
12:30 p. m.	11:30	10:30	9:30
WVAP (475.5m-570kc) Markets, weather.			
WVAA (475.5m-570kc) Markets.			
1	12 n.	11	10
WVAP (475.5m-570kc) Markets.			
WHO (520m-570kc) Livestock, receipts, weather, roads.			
WVOS (410.5m-600kc) Livestock, weather.			
1:30	12:30 p. m.	11:30	10:30
EVVH (374.5m-570kc) Markets, weather.			
1:45	12:45	11:45	10:45
KOA (322.4m-570kc) Weather, roads, livestock, poultry.			
2	12 n.	11	10
WVOC (483.5m-570kc) Weather, grain, livestock, dairy.			
3	1 p. m.	12 n.	11 n.
WVCO (320m-570kc) Livestock, Chicago and St. Louis closing cash market quotations, Chicago Board of Trade, N. Y. Stock exchange.			
WVLS (344.5m-570kc) Livestock, grain, dairy, fruit, vegetables.			
WVOS (410.5m-600kc) Livestock, markets, grain.			
3:30	2:30	1:30	12:30 p. m.
WVAA (475.5m-570kc) Markets.			
3:50	2:50	1:50	12:50
WVWJ (322.7m-570kc) Weather, markets.			
4			
WVCO (416.5m-570kc) Markets.			
WVAA (475.5m-570kc) Markets.			
5:45	4:45		3:45
WVOC (483.5m-570kc) Market review.			
6			
KOA (322.4m-570kc) Sheep, markets, livestock, poultry.			

UNKNOWN GIRL TO BE MADE FAMOUS ON AIR

Don Meaney to Try to Popularize Movie Extra Girl

HOLLYWOOD, Calif.—Probably the first effort ever made to popularize a motion picture personality entirely through Radio has been started by Don Meaney on his KNX midnight frolic over KNX each Thursday night from 12 to 1 a. m. Pacific time.

The name selected by Don Meaney to make known to all America by means of the radio is Anne Howe. No one as yet has seen her on the screen, she is just an extra girl, with all the qualities that make for screen success, that Don Meaney has taken in hand and promised to publicize throughout the land.

Members of the Wampas, Hollywood's association of movie press agents, are reported to be sticking very close to the loud speakers on Thursday nights to see if Don Meaney can make a success of his new idea in publicity, which is novel, even in jaded Hollywood.

Friday, April 9

(Continued from page 15)

KGO, Oakland, Calif. (301.2m-630kc), 6-6:55 p. m., 10:30-11:30 p. m.

KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 8-8, vocal and instrumental music; 9-10:30, concert; 10:30-12, Hot Dicks; Features stars; features.

KHJ, Los Angeles, Calif. (405.2m-740kc), 8-10 p. m., program, Western Auto Supply company.

KJR, Seattle, Wash. (384.4m-780kc), 7-8:30 p. m., old-time songs, Louisjelly male quartet; 8:30-10, Post-Intelligencer studio program.

KMTV, Hollywood, Calif. (238m-280kc), 6-7 p. m., Hawaiian Silver String quartet; 8-10, KMTV concert orchestra; 10-11, Star Piano company studio.

KNX, Hollywood, Calif. (388.5m-590kc), 4:30-7 p. m., Aviator Kent orchestra; 7-8, KNX feature program; 8-9, program, Jell-X Cell company; 9-10, Order of Optimists Dinner; 10-11, Radio, Hollywood American Legion stadium; 11-12, Ray West's Coconut Grove dance orchestra.

KFO, San Francisco, Calif. (428.3m-700kc), 6:30-7 p. m., States restaurant orchestra; 7:30-9, "The Resurrection" 9-10, Palace hotel new dance orchestra; 10-11, States restaurant orchestra; 11-12, Henry Halstead's orchestra.

KTAG, Oakland, Calif. (239.5m-1250kc), 6-10 p. m., program, Bremer's.

KWSC, Pullman, Wash. (384.5m-660kc), 7:30-9 p. m., Pullman community program.

Reveals Drifting Snow Discharges Electricity

Fine, Strongly Charged Particles Cause Static Interference

LONDON.—A remarkable discovery which brings a new corner into the ranks of Radio's static enemies has been made by a German scientist, Dr. Stager.

He has revealed that drifting snow may become electrified and thus cause discharges which can be perceptible in nearby receivers.

It has been known that fine dust or fog or even steam clouds are easily electrified and thus become potential sources of interference, but Dr. Stager has been able to show that fine snow particles when drifting in the Swiss mountains were strongly charged.

Experiments in England have proved that even steadily falling snow can prove a medium for interference. One wonders why these particles must drift before they become charged and where the charge comes from.

Decision Upholds Right to Broadcast Market Reports

CHICAGO.—A far reaching decision clarifying the status of certain classes of Radio broadcasting was seen in the opinion handed down recently by the Cook county appellate court, sustaining the John P. Bowles company, cattle brokers, in an injunction against the Chicago Livestock exchange, restraining that organization from interfering with the daily broadcast market reports by remote control from the stock yards over WHT, which is conducted as a public service by the brokerage concern.

The injunction is the outgrowth of a resolution adopted by the Livestock exchange effective December 1, restraining any member of the concern from broadcasting market reports. The legal ruling was first granted by the circuit court and appealed by the Livestock exchange to the appellate branch.

WOC Heard in Holland
DAVENPORT, Ia.—Word has just been received that WOC, Palmer school station here, was heard clearly in Delf, Holland, during the international Radio week tests.

NEWS BULLETINS

Daily Except Sunday			
Eastern	Central	Mountain	Pacific
9:45 a. m.	8:45 a. m.	7:45 a. m.	6:45 a. m.
KDKA (309.1m-570kc)			
10	9	8	7
WGN (302.8m-590kc)			
10:35	9:35	8:35	7:35
WVCO (416.5m-570kc)			
11	10	9	8
WVAI (384.5m-760kc)			
12 n.	11	10	9
CFCA (356.5m-840kc); KDKA (309.1m-570kc); KPCC (206.5m-1010kc)			
12:30 p. m.	11:30	10:30	9:30
WCAE (461.3m-650kc)			
1	12 a.	11	10
KGV (491.5m-610kc); KNX (338.2m-590kc)			
1:15	12:15 p. m.	11:15	10:15
WVAI (394.5m-760kc)			
1:45	1:45 p. m.	12:45 p. m.	
WVLS (309.5m-720kc)			
2			
WVX (416.5m-590kc)			
2:30	2:30	1:30	
WCAE (461.3m-650kc); WFAA (475.5m-650kc)			
3			
CFCA (356.5m-840kc)			
3:30	3:30	2:30	
WVCO (416.5m-570kc)			
4			
WVCO (416.5m-570kc)			
5			
KOIL (278m-1030kc); WOC (483.6m-630kc); WJLA (265.6m-1130kc); WJAI (394.5m-760kc)			
6			
WVBF (384.4m-780kc); WMAA (340.7m-880kc)			
7			
WSAI (325.5m-920kc)			
7:30	6:30		
EPO (428.3m-700kc)			
8			
RLX (508.2m-590kc)			
8:45	8:45	7:45	
WVBB (370.2m-810kc)			

Sunday

Eastern	Central	Mountain	Pacific
9 p. m.	7 p. m.	6 p. m.	5 p. m.
WJLA (265.6m-1130kc)			
8:15	7:15	6:15	5:15
WVBB (370.2m-810kc)			
9			
WVCO (416.5m-570kc)			
10			
EVVH (374.5m-570kc)			

KW, "The World Crier," broadcasts news every half hour from 8 a. m. to 2 a. m.

Old Fireside Circle Is Brought Back by Radio

Restores to American Home What Other Inventions Took

DENVER.—Radio has restored to the American home what earlier inventions have ripped from it, according to George Sanford Holmes, managing editor of the Rocky Mountain News and Denver Times and a recent speaker over KOA at Denver. Through Radio, he asserts, the familiar fireside circle has been resumed and thousands of homes have been reconstructed.

"Millions thrill beneath the spell of Radio, drawing from the ether, inspiration and information, entertainment and education, recreation and relaxation," he emphasized.

"Upon the broadcasting station as well as the newspaper, rests a deep responsibility to discharge with integrity and intelligence the public trust which reposes inherently in each."

Organ Concert in New York Reaches Ship Off Honolulu

LOS ANGELES.—Organ music from a concert hall in Albany, N. Y., was the treat given California listeners on March 11, when KNX picked up and rebroadcast the program from WGY between 8 and 9 p. m. Pacific time. KNX's rebroadcast of WGY was picked up by Harold Jauss aboard the President Cleveland a few hours out of Honolulu, making a total distance of 4,935 miles that the music traveled through the air.

KNX's rebroadcast also was again rebroadcast by KFWO, the Mott station on Catalina Island, thirty miles off the southern California coast.

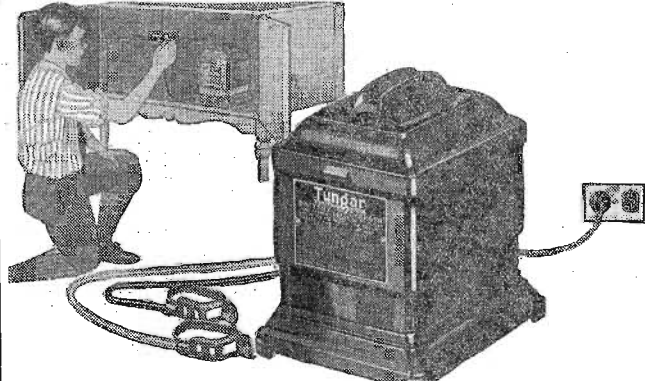
WRC Sends Farm Programs

WASHINGTON.—The farm Radio programs, arranged by the department of agriculture, have been added to the daily features broadcast by Station WRC, here. The farm information under the heading "Fifty Farm Flashes," together with the "Housekeepers' Half Hour," are being broadcast daily except Saturday and Sunday, from noon to 12:30 p. m., Eastern time. Appreciative rural listeners have written many letters thanking WRC.

Big Demand for Radio Book

CINCINNATI.—Librarians in practically all of the largest cities throughout the United States have adopted "Simplicity of Radio," by Powell Crosley, Jr., as one of their standard popular treatises on Radio.

The demand for books of this type may be judged from the fact that the New York city public library uses at the present time fifty-five copies of this book in its main library and branches.



Tungar is the easy-to-use charger

Anyone can clip a Tungar to a battery and plug it in on the house current. That's all there is to it.

Attach a Tungar at night—and have snappy batteries in the morning. It will not blow out Radiotrons.

It needs little attention. Only a dime's worth of current consumed for a charge. No wonder "Tungar" is fast becoming the word for battery charger.

Tungar
REG. U.S. PAT. OFF.
BATTERY CHARGER

Easy of Rockies:
Two ampere size \$18.00
Five ampere size \$28.00
60 cycles - 110 volts

Merchandise Department
General Electric Company
Bridgeport, Connecticut

Tungar—a registered trademark—is found only on the genuine. Look for it on the name plate.

GENERAL ELECTRIC



Steinite

Low Loss

Interference Eliminator

No Radio Set Complete Without It

Select stations at will. With music and voices crowding the air the average set fails to bring in the desired stations properly. The **Steinite Interference Eliminator** shuts out local and other interference. You get one station at a time, the one you want, and tune in loud and clear. Operates on any set—attach to aerial wire and to set—no changes—no extra tubes or batteries. Greatest Dollar Value in Radio Today. OVER 300,000 SOLD

Improved Results With Tube or Crystal Try entirely at my risk the wonderful improvement this inexpensive little device will make in the reception of your set. Improves results on both crystal and tube sets that use any kind of aerial except loop antenna. Clears up reception noticeably, increases volume, and partially absorbs static. **MONEY-BACK GUARANTEE.**

Famous 1,500 Mt. Steinite 1-Tube Set, \$6; Longance Crystal Set, \$8; Steinite Crystal Set—3 for \$1

STEINITE 5-Tube Set—\$29.75

Descriptive literature on request.

Interference eliminator on your set and note improvement. No tools needed—install in a single moment with set and follow simple instructions. Money back promptly if not delighted. Write anywhere in U. S., when cash with order. Agents: Exchange National Bank, Atchison Savings Bank.

Postpaid If you are not delighted with results you get your dollar back

ITE LABORATORIES, 161 Radio Bldg., ATCHISON, KANSAS

AN EVENING AT HOME WITH THE LISTENER IN IN EASTERN TIME

Table listing radio stations by call letters, location, and broadcast schedule (Met., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday).

Table listing radio stations by call letters, location, and broadcast schedule (Met., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday).

STATIONS IN ORDER OF WAVE LENGTHS

Table listing radio stations in order of wave lengths, categorized by Meters Call and Meters Call.

SHORT WAVES

By Marcella (Continued from page 6)

McNamee ever sang via WEA? Well, he doesn't. However, he has, twice during two "WEAF Home Talent" programs and once in an "Eve-ready Home" program.

jovial chap about 28 years of age, 175 pounds heavy, and has dark hair and blue eyes. A civil engineer by education and profession, he prefers Radio entertaining as an avocation.

What deep secret would you like to know about your favorite broadcast star? Drop me a note, girls and boys, and I'll do my best to answer here. MARCELLA.

BEST MACARONI DISHES

(Continued from page 6)

stiffly beaten egg whites. Pour into a buttered mold or baking pan and sprinkle with paprika. Set mold in a pan of hot water. Bake 40 minutes in a moderate oven, 350° F. This amount will serve six.

Sauce for Lasagna With this lasagna, but in case you wish to use one, I suggest Gold Medal egg sauce, as we have found it to be the most delicious with this particular loaf. Here is the recipe for the sauce: 1/4 cup butter, 2 1/2 tablespoons Gold Medal flour, 2 1/2 cups milk, 4 tablespoons salt, 1/2 teaspoon pepper, 2 egg yolks, 4 tablespoons lemon juice, grated rind of 1 lemon.

Method: Melt the butter, add flour and blend to a smooth paste. Add the milk and stir until the sauce boils. Add salt, pepper, and egg yolks, and stir until smooth without allowing the sauce to boil. Add the lemon juice very gradually. Serve at once on the macaroni and salmon loaf.

Serve Vegetable or Fruit With the macaroni and salmon loaf, I suggest that you serve string beans, spinach or any other green vegetable, and stewed or canned fruit with cookies or cake or any simple dessert.

Gold Medal Saffron Special is our second recipe. Here it is: 4 tablespoons butter, 4 tablespoons Gold Medal flour, 2 cups milk, 1 1/2 teaspoon salt, 1/2 teaspoon pepper, 1/2 cup grated American cheese, 1/2 cup sweet green pepper chopped, 1/2 cup pimiento chopped, 3 hard boiled eggs, 2 cups cooked spaghetti, 1/2 cup stuffed olives.

Method: Melt butter, add flour, and blend to a smooth paste. Add the milk gradually and cook 10 minutes. Season with salt and pepper. Add grated cheese, green pepper, pimiento and hard cooked eggs. Stir in the cooked spaghetti. Turn into a buttered baking dish. Bake 27 minutes in a moderate oven, 325° F. Remove from oven and sprinkle with stuffed and chopped stuffed olives.

Daylight Distance Easy for W CHICAGO.—WHT, stationed on Wrigley building here, claims record for having its morning and noon programs heard in Boston, Mass., and Texas. In Dallas, Colo., also. The WHT's daylight broadcasts, 7:17 points are all approximately 1,700 miles from Chicago.

Wayne wants to know what became of the Incese-Rites orchestra, formerly heard over WHEA in Des Moines. The orchestra was then playing at WHO through the courtesy of the Fort Des Moines hotel, of Des Moines, but has since removed to play at the Blackhawk hotel, Davenport. Perhaps WOC will broadcast it some time.

Lillian Madeson, WOAY singer, has not been heard of late here, because the stork visited her recently and made her mother of a bouncing baby boy. Her evenings are now engaged in singing him to sleep.

Chawlie, of Cincinnati, gets snappy with me. Shame on you! You don't know who I am, and wouldn't you be surprised, though, if you ever saw me. I'll admit you sound interesting—but to give you the information, as much as I know, the Coldwater, Miss., station is WRDC, wave length 354.1 meters. You probably can't get them any more on account of the congestion. KFKE, late of Milford, Kansas, is a delete now, for Dr. Jones sold out his transmitter to Norman Baker, of Muscatine, Ia., and the latter gentleman has exchanged on the air under the colors KFTN. Walter Tison is the director and announcer of WGHE, Clearwater, Fla.

WGN, Detroit, is back in the hands of C. D. "Chief" Tony, its original director and daddy. This bit of news no doubt will interest many members of the Red Apple club, at whose meetings the "Chief" will again officiate. For several months back he has been in charge of WGFP, Detroit.

Sammy Stept's location? He's now at WJZ, New York, with Frank Kampanin and Al Bernard. The Record Boys, Sammy still seems to keep his popularity.

Speaking of the "Phantoms" of KPRC, Houston, about whom so many letters of inquiry have been received, I can only add to the mystery. It would be unfair to divulge their identity when they have been so careful to keep it secret. The lady member of the Phantoms—"Phantomette"—is a stately blonde with curly bobbed hair, eyes, and hair as blue as the sky in Texas. She has been on tour in two seasons. She does the vocal part of the program, while the male member of the Phantoms is the pianist. He is a round,

WOC, Trenton, N. J., 249 Silent 8:30-11:30 Silent
WOC, Davenport, Ia., 483.6 10:00-1:00 7:30-12:45 Silent
WOC, Homewood, Ill., 217.3 11:00-2:00 7:30-9:30 Silent
WOC, Kansas City, Mo., 508.2 6:15-9:15 6:00-7:00 7:30-8:30 7:30-12:00 Silent
WOC, Philadelphia, Pa., 325.5 8:00-10:00 Silent
WOR, Newark, N. J., 405.2 6:15-12:00 Silent
WORO, Batavia, Ill., 275 8:00-11:25 3:30-11:00 Silent
WORS, Jefferson City, Mo., 440.9 Silent 9:00-11:00 Silent
WOT, New Orleans, La., 259.8 6:15-11:00 6:05-12:00 Silent
WQJ, Chicago, Ill., 447.5 8:00-4:00 8:00-11:00 Silent
WXL, Washington, D. C., 468.5 7:15-11:30 Silent
WYLS, Lansing, Mich., 285.5 10:00-12:00 Silent
WYMA, Richmond, Va., 225 Silent 8:00-11:15 Silent
WYNY, Torrington, N. Y., 273 8:00-11:30 9:00-11:30 9:00-11:30 9:00-11:30 9:00-11:30 Silent
WSAI, Cincinnati, O., 325.5 8:00-2:00 8:00-11:15 11:00-12:00 8:00-10:00 8:00-11:00 Silent
WSB, Atlanta, Ga., 428.3 9:00-1:00 8:30-10:15 9:00-1:00 9:00-1:00 11:45-1:00 9:00-1:00 9:00-1:00 Silent
WSEB, Chicago, Ill., 209.7 7:30-9:00 7:30-2:00 6:30-8:00 7:30-2:00 7:30-2:00 7:30-2:00 Silent
WSEW, Nashville, Tenn., 282.3 7:30-1:00 Silent 7:30-12:00 11:00-1:00 7:30-12:00 Silent
WSEW, New Orleans, La., 519 9:00-11:30 Silent 9:00-11:30 Silent 9:00-11:30 Silent
WSTL, Iowa City, Ia., 488.6 Silent 10:15-10:45 8:30-10:00 Silent
WSUS, Chicago, Ill., 275.1 9:00-2:00 Silent 7:00-8:00 7:00-2:00 7:00-2:00 7:00-2:00 7:00-2:00 Silent
WTAG, Worcester, Mass., 258 Silent 4:00-10:15 7:00-11:00 7:45-11:00 7:45-11:00 8:00-11:00 8:00-11:00 Silent
WTAM, Cleveland, O., 389.4 8:00-12:00 Silent 8:00-12:00 8:00-12:00 8:00-12:00 8:00-12:00 8:00-12:00 Silent
WTAR, Hartford, Conn., 519 9:00-11:30 Silent 9:00-11:30 Silent 9:00-11:30 Silent
WVJ, Detroit, Mich., 352.7 Silent 6:20-10:00 6:00-9:00 6:00-9:00 6:00-9:00 6:00-10:00 6:00-10:00

Radio Digest

Illustrated

Reg. U. S. Pat. Off. & Dom. of Canada
Published by the
RADIO DIGEST PUBLISHING CO.,
(Incorporated)
510 North Dearborn Street
Chicago, Illinois
Telephones: Superior 7323, 7324, 7325, 7326, 7327

E. C. RAYNER, Publisher

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

Member of the Audit Bureau of Circulations



241
PUBLISHED WEEKLY

SUBSCRIPTION RATES

Yearly in U. S. and Possessions and Canada, \$5.00
Foreign postage, \$1.00 additional. Single copies, 10 cents.

Vol. XVI Saturday, April 3, 1926 No. 13

\$85,000,000 for Radio Programs

HOW would you like to have \$85,000,000? Apply to Uncle Sam and see if he will give it to you. Perhaps he will, for it was recently done for a group of millionaires by our senate and house of representatives and Mr. Coolidge.

The occasion was the refunding of the large estate inheritance tax with a two-year retroactive clause in it. In common speech, this means that \$85,000,000, levied against about a dozen millionaire estates and literally in Uncle Sam's pockets, was given back to these estates. No explanation was given as to the cause of this going back two years and taking the burden of taxation off of a dozen dead millionaires to place on millions of living wage earners in the future.

Did your senator or congressman let this go through? Most of them did.

The first reason for this editorial was to propose that Uncle Sam endow broadcasting stations with a fund, say \$85,000,000, the interest earned on which principal would be devoted to purchasing first class talent for the Radio broadcasting stations.

An annual fund of five million dollars would be available for this purpose. Uncle Sam could sponsor its expenditure. The machinery for spending this money to improve programs would not be difficult to organize.

Think of the great benefits to the great army of Radio listeners. The problem of who is to pay for broadcasting would be solved forever.

We appeal directly to the heirs of those estates which received the big "divvy" (the rebate of the \$85,000,000) to contribute this paltry (to them) sum to the future of Radio. Let their big-heartedness and foresight for the public welfare be expressed in such a permanent endowment.

We will bless forever the first of these millionaire heirs and heiresses who signs up for the outlined proposal. The line forms at the right.

Give Congress the Ether

AS THIS was being written, the house of representatives had just passed the revised White Radio bill. It has gone to the senate for action. Representative Davis, of Tennessee, a democrat, led the principle opposition and offered dozens of amendments, almost all of which were voted down. The other representatives, excepting White of Maine, father of the bill, were practically silent. They didn't know what it was all about and cared less.

The definition of the word "ether" caused quite a furor. Old-womanish representatives almost caused an investigation to be made. They demanded more knowledge of the ether.

Many a scientist would give several years of his life to really know what the ether is. It is such a factor in modern science. Yet we know little about it.

But the house, twiddling its thumbs and puzzling over the definition of a word, passed the bill with minor changes. Probably many important things were overlooked, ignorantly or intentionally.

However, we need a law, despite how much favoritism it may show or how weak it may be. We hope the senate has passed the bill before this issue reaches your hands. If the senate does, and the president signs it, we will be able to get at least a skeleton of an administration for misadministered Radio.

Our "do-nothing" government, as a contemporary publication has aptly labeled the present administration, will have given some sort of excuse for its existance.

Chicago's Silent Night

THE Chicago Tribune is sounding its readers to see what they think about Chicago's silent Monday night with an idea of modifying it in the summer. There is much to be said on both sides. But Chicago, of course, has a problem individual and different from most cities. New York has an analogous situation difficulty.

Like to believe that some day, somehow, a revolution will be invented which will be so perfect in its nature that silent nights will not be required to avert the local barrage. The romance of distance and love of variety has not changed.

RADIO INDI-GEST

Grandfather Listens In
I thought the world had plunged ahead
With hard and reckless power,
And all old gentle things were dead
And blown like a dry flower.
And lying lonely here abed,
I had, I fear, grown sour.

But now I feel a different way,
With the heater red and roaring
And the lamp dim and the room gray
And the loud speaker pouring
"When You and I Were Young, Maggie,"
In a tenor softly soaring.

For I see that the young and bold and new
Are only fresh leaves hung
On the old oak standing the ages through;
This Radio, now, has sprung
From the loving toil eternally true
"When you and I were young."
CARLTON CULMSEE

Who's Who In Iowa?

Dear Indi: Last night an announcer at a certain Iowa station, while broadcasting a program from a dance hall by remote control, declared, "Among the guests present tonight, are the mayor and the president of the fair association. In fact, there are hundreds of representatives of the upper and lower crusts of society."
ELOISE

Always Always and Spanish Shawl

This is Station XXXX, Podunk. You have just listened to Whos Whois and his orchestra playing "Spanish Shawl," "Always," "Spanish Shawl" and "Spanish Shawl." For their next numbers, they will play "Always," "Spanish Shawl," "Always" and "Always."
TIRED TILLY

"A FLOP ON THE STAIRS"

By THE THIRD TROMBONE PLAYER

Episodo 1—"A Bucket of Blood"

A SHOT was heard! A woman's voice shrieked through the night air. Then all was still, quiet and almost silent.

(Hot sargity, this is gonna be good. Watch for the next episode. Agnes, quit chewing your finger nails, and you, Aloysius, stop drumming with your fingers.)

Not a Moving Picture

Dear Indi: I see in your column where our old friend the Night Herd says as how some stations have put on a play and named it "The Night Herd" and how he lobs as how folks will think it is about him. Well, he ain't got nothin on me. I see as how they have got an announcer down at WSB, the At-lant-ah Journal, maybe someone will think that is me—which it ain't, but my better seven-eight says that if he is a bigger Radio nut than yours truly, then she shore pitifes his wife. As ever yours,
OLD KING TUTT (HIMSELF)
P. S. Which I says maby he ain't got none.

Where have you been, Tutt? Seems like the last time we heard from you was about 3,000 years ago.

My Pals

Soon the lowing of the cattle dies away and all is still,
Save the howling of a coyote lurking on a nearby hill
Or the sound of brushing hodies when the herd begins to mill—
And I'm alone when light of day has gone.
But there are three pals beside me—one is Shep, my mongrel pet
One's a pinto saddle pony—one's an eight tube super-hot.
And there's a host of friendly voices in the ether I can get
To come and keep me company 'till dawn.
THE NIGHT HERD

Machine Has Cold Reception

Dear Indi: Kittle Drummer's ice machine inventshun might be all right, but it looks like it kind of bails things up.
AH GRATTON

Hey, Mildred, Give 'em Cards

Enter the nomination of Michael Angelo to the Famous Fans Club—he was the world's greatest designer of panels.

Schouten, because he used the "Horn" to beat Magellan and he DX-ed Tierra del Fuego, and Demosthenes because he actually held a crystal set in his mouth to make him a loud speaker.
ELOISE R.

Mary, Queen of Scots, because she had her head set on a block.
SQUEAKY

Wanted—A Guardian

Dear Indi: Since you have joined the technical department and started fooling with that invention, I'm beginning to worry. Please don't play with matches.
S. P. C. A.

The Truth Will Out

Dear Indi: Have you noticed lately the decreased number of "loving cup" cars? I wonder if its from wearing head phones?
THAT RED HEAD GAL

Sorry, Bobette, but we are prone to tell the truth. We have seen more "loving cup" cars the past year than ever before, since Ponjola, Congressional and Boy bobs have become so popular.
INDI

News of the Week



Condensed BY DIELECTRIC

Station WTAM, Cleveland, had an unusually good dance program to entertain listeners the other night and during the playing of most of the selections one could easily pick out the drums. It may seem strange to mention that, as though something unusual, but just try to hear the drums in most orchestras and see how unlikely you are to hear them. There are receivers which make the French horn resemble a clarinet and nikes to confound harps and pianos, but just listen for the tympani.

That big prize to follow the completion of the serial "A Step On the Stairs," now running in this paper and broadcast from a number of stations, may loom large while you read of it—and should. While the broadcasting station is putting it on the air, however, you can think of the plot only and the WGJ, Schenectady, players took every precaution against the possibility of anyone losing interest while they were dramatizing the story. Much credit is due these players.

A very enjoyable mixed program was given through Station WRVA, Richmond, Va., under the title of the Appamattox Review. The male singers appearing in this were all capable individually and collectively and assured a pleasant evening's entertainment. The gentleman announcing that evening respected the wishes of most listeners in, yet his innermost feelings came to the surface each time he announced, for never was announcing done so consistently on a minor key leaving the impression of complete sadness.

The Rainbow orchestra has received little mention here for some time past and the whole blame attaches to my negligence. They can play, as all know who listen, and play with alluring charm. However, listeners feel when they hear a saxophone—the instrument produces varying effects—few could have failed to note the ability of the mighty sax player as he saluted forth in the vanguard of his fellow orchestra men, recently. Under his guidance the instrument fairly spoke, sometimes seductively and again most mournfully, but always unflatteringly. Hail the sax.

Pontiac, Mich., should be a notable habitation by now for the particular reason of its being the home site of Station WJR; what other reasons there may be do not concern us. Jewett Jesters provide an interesting feature for their programs, even if the jesting is often more in the name than performance. The contributions of these entertainers, when I listened to them, were of the oft-repeated variety in most part and yet you were carried along with the spirit in which they were rendered.

Another Radio jaunt to the home studio of Lambdin Kay found that urbane gentleman as insistent upon quoting at length from "long distance telegraphic requests" as of yore, so "Dubbye—S—B, THE Atlanta Jewel," etc., finds me willing to subsidize on the subject. Attention is to be called though to the Meyers orchestra, which does its best to please all in the Radio audience and succeeds admirably.

During the appearance of L. F. Smythe at the console of the organ utilized to bring pleasure to WHO's listeners, we were impressed with the choice of selections favoring an exposition of the majesty of that instrument. This feature from the state of Iowa, is one surely capable of bringing pleasurable response from all interested in organ recitals. The announcing was very precise and left none in doubt of the identity of the broadcasting station. We'll have them all in line.

W. D. C. Beatrice Davis writes WORD, best of Gardner ones 10-2 Var

How to Stop Blooming and Man-Made Static

Part VIII—Is It in Set or Outside?

By The Technical Staff

CLOSE TO the end of the last article several tests were mentioned which the set owner could either make for himself or have done by the Radio dealer from whom he was purchasing equipment. The locating of trouble by means of these tests is not particularly difficult as can be seen by study of the following paragraphs.

First test: To determine if the noise in the receiver is due to a fault in your receiver or is actually interference coming in from the air. Disconnect your aerial and ground wires. If there is no reduction in the intensity of the noise, while the broadcast music is stopped by the disconnection, the probability is that the source of the noise is in your own receiving set, in the form of a loose connection, faulty batteries, or defective tubes.

If the disturbing noises are considerably reduced in intensity, or cease altogether, you may be reasonably sure that these noises are due to external causes. Their source may possibly be in your own home—electric motors or electric heating or cooking appliances. Again, these noises may be caused by more distant electrical disturbances of many sorts, or heterodyne whistles from broadcasting stations or receiving sets. Just before disconnecting the antenna you must note very carefully the character of these noises, otherwise you may confuse them with noises originating in the receiving circuit which are caused by its being thrown into an unstable condition by the removal of the antenna lead-in. With some receiving sets, a readjustment to a condition of less sensitivity may be necessary before the antenna is disconnected.

Assuming that the disturbing noises are now shown to come from the receiving circuit, how can one tell that they are not caused by some defect in the antenna or in the ground connection? An examination of the antenna is, for evident reasons, not very convenient and many listeners prefer to leave this to a Radio service man. This action need be taken only after tests

upon the receiving set itself fail to indicate the difficulty. If the antenna has been carefully installed it is not likely to give trouble. It is a simple matter to examine the ground wire and determine if it is intact. This should be done while the set is tuned to a local station, and particular attention should be given to the point of contact of the ground wire with the water or steam pipe. In the event of an insecure contact, a grating sound will be produced in the phones or speaker when the wire is shaken near this point of contact.

Most antennas are equipped with a lighting circuit: From cases of interference of difficulty. While the receiving set is adjusted as for normal operation, the wire leading from the lightning arrester to ground should be disconnected. If this causes a noise in the speaker it indicates a defective arrester.

Outside Disturbances

Second test: To determine whether the interference originates in your own house lighting circuit. From cases of interference investigated, it has been found that a great number of these are of a purely local nature, originating in such sources as a lamp loose in its socket, or a loose plug of a heater, or from faulty household apparatus. While the interference is continuous, have someone open the main house-lighting switch for a few seconds, at the same time listening in on the receiver. If the interference stops when the switch is open, the source of the interference is probably in your own circuit.

This test should be repeated several times, however, as there may have been a misleading coincidence with something occurring outside at the instant this switch was opened the first time. Many sources of interference do not start again immediately as the switch is closed, so that observations taken at the instant of opening the switch are more reliable than those taken at the instant of closing it.

Extent of Area Affected

Third test: To determine the extent of the area affected by this interference. When you are sure that the interference comes in on the air and does not originate in your own set or in your own house-lighting circuit, you should communicate with others in your district who have Radio receivers. Great care should be taken in making this test to avoid the danger of confusing the interference which originates from different sources, which may appear similar in the receiver.

The most satisfactory way of making this test is for one observer to listen to the interference received on two Radio receivers at different points at the same time by means of a telephone system. To carry out this test, an assistant at the distant Radio receiver should place his head phone (or preferably his loud speaker) near the transmitter of the telephone in order that the observer at the other receiver may listen at the same time to the interference heard on his own receiver at his right ear, while listening to the interference heard at the distant Radio receiver by means of the telephone,

at his left ear. This test should be continued for a sufficient length of time to observe a number of variations in the nature of the interference.

In cases where it is not convenient to use the telephone system for this test, the two observers at distant Radio receivers may keep an accurate log of the interference, but in this case they should first synchronize their watches and record any characteristic change in the interference heard, noting the time accurately to within a few seconds.

Fourth test: To determine if any suspected source actually causes Radio interference. (Continued on page 22)



Revolutionizing because of the application of new and fundamentally sound principles to the rectifier.

B-eliminators or parts, specially designed for use with RAYTHEON tubes are made by these and other well-known manufacturers, and are now on sale at your dealer's, Price \$6.00:

- Acme Apparatus Co.
- All-American Radio Corp.
- Dongan Electric Mfg. Co.
- General Radio Co.
- Jefferson Electric Mfg. Co.
- Mayallian Radio Corp.
- Modern Electric Mfg. Co.
- Thornton Electric Mfg. Co.
- Tobé Deutsolmann Co.
- Webster Co.

RAYTHEON
Raytheon Manufacturing Co.
CAMBRIDGE, MASS.

Build Your Own "B" Eliminator!

RADIO DIGEST shows you, in this week's issue, how to build your own "B" battery eliminator. It's easy to do, will save you money, and will insure better operation from your radio.

For Raytheon and Filament Tubes

Better reception can be enjoyed with higher and constant voltage. A "B" Eliminator insures higher voltage constantly. The current consumption is negligible. The eliminator will take care of from two to ten tubes. For best results in your eliminator, be sure you use the Jefferson 355 Transformer and Jefferson 356 Chokes. No noise, no hum, no distortion with this efficient "B" eliminator. Their cost is no greater, yet they embody distinct advantages. The Jefferson 355 Transformer can be used both for Raytheon Tubes and filament tubes—a unique feature.

Jefferson Essential Units for "B" Battery Eliminators are sold through dealers. If your dealer does not have them in stock, write us and we will see that you are supplied. The Jefferson 355 Transformer sells for \$7 (only one is needed); Jefferson 356 Chokes sell for \$4 each (two are required).

Jefferson Electric Manufacturing Co.

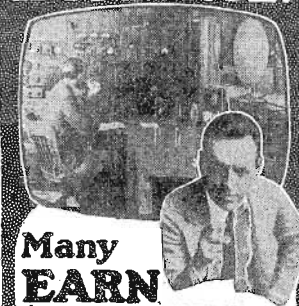
506 So. Green St., Chicago, Ill.

Specialists in Electrical Precision Equipment



JEFFERSON ESSENTIAL UNITS

Here's Work That is Almost ROMANCE!



Many **EARN \$50. to \$250. a Week in RADIO**

Get into the great new BIG Pay Industry—Radio. If you're earning a penny less than \$50 a week, clip coupon now. Send for **AMAZING FREE BOOK**. Be a Radio Expert, and draw down big money for the customer and meet fascinating work in the world. Positions everywhere. Need for Radio Experts in every community. Short hours. 11 A.M. to 5 P.M. Free book gives all facts. **LEARN QUICKLY AND EASILY AT HOME**. Master Radio Engineers will show you how to qualify, quickly and easily at home, for Radio's fine jobs. We guarantee to train you successfully. Every day N. B. E.-trained men are taking good places in the Radio field. Thousands of openings now awaiting the trained man. **FREE EMPLOYMENT SERVICE**. At any other big feature. Get the facts—**CLIP COUPON**.



"My charges for consultation \$2.50 per hour. All success due to you." R. W. HICKOK Hill, Groveland.



"Radio a gold mine in your thousands." A. B. ECKE, Winthrop.

Get This **FREE Book!** Send coupon below for **FREE BOOK**—"High Rewards in Radio." Read for yourself. No previous experience needed. Common schooling enough. **WRITE NOW.**



You get all these sets

Receiver sets, from simplest kind to thousands of dollars. Includes to help you **BE AN UNQUALIFIED OFFICER**. Other special features for limited time only, so **ACT QUICK!**

National Radio Institute
Dept. DU9 Washington, D. C.

MAIL COUPON

NATIONAL RADIO INSTITUTE
Dept. DU9 Washington, D. C.

Without obligating me in any way, please send me your free book "High Rewards in Radio," also enclosing information on your practical, home-study Radio course.

Name _____ Age _____
Address _____
Town _____

The Reader's View

You Gotta Know How
Why pick on the single circuit?
In looking through the issue of February 6, I noticed a letter from R. McE. M. of Mansfield, Ohio. Apparently he doesn't like the so-called "single circuit."
There is always a limit to everything. Anybody knows that a single circuit will cause no more interference than some of the other sets, especially the super-het, if it is rightly operated. Of course, some of these respectful people haven't the brains to operate such a set. I would be very glad to teach such people how to operate such a set.
But why make such a fuss over a little thing like this when there is so much good entertainment on this free air of ours?—N. A. F., Cedar Rapids, Iowa.

Another 10-Watt Getter
In Feb. 20 issue of Radio Digest I see that J.M.H., Lake Charles, La., thinks it quite a feat to pick up 10-watt stations on a broadcast receiver and would like to know how it is done. If C.R.J. of Boston does not satisfy him, I will be glad if he will write to me. I have had WOWL on a loud speaker using three 199 tubes and at a time when the air was full of stations on nearly same wave length. WOWL is located at New Orleans so he should know if this is good reception or not. WOWL says it is.—H.W.H., Vandalia, Mo.

A Friend to Sopranos
Have just read the letter in "The Reader's View" signed C. A., Columbus, Ohio, and, having held the same opinion until the advent of resistance coupled audio, would like to suggest that before condemning the "Old Man Soprano" we try this type of audio in connection with the W. B. cone speaker.
Have just listened to a soprano solo from WCBD and it was fine.—T.L., Okmulgee, Okla.

HELP STOP BLOPING
(Continued from page 21)
ference. In carrying out this test, either of the systems referred to in test number three is suitable. Great accuracy is required in these tests, for it has been found that many misleading reports have been received from observers who were not sufficiently accurate in their observations. For instance, interference has been reported to be associated with the switching on of the street lights in cases where the interference actually was produced by another circuit which was switched on

CLASSIFIED ADVERTISEMENTS
Classified advertisements in Radio Digest produce results. Have you a receiving set to sell? Do you want to buy a radio? A classified advertisement in this column will sell your set.
Rates are twenty cents a word for each insertion, five per cent discount for four insertions, ten per cent for thirteen insertions, fifteen per cent for twenty-six insertions, twenty per cent for fifty-two insertions. Name and address to be included at above rate. Cash should accompany order. Minimum of ten words. Objectionable and misleading advertisements not accepted. Forms close three weeks prior to date of publication, which is Saturday.

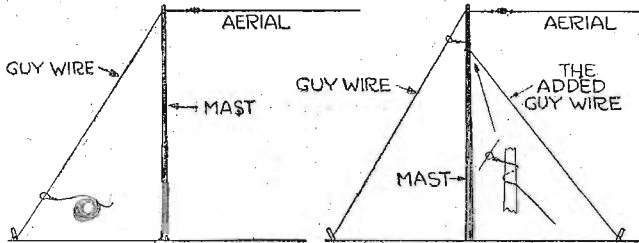
BLUE PRINTS
Super-Het, Ryan's Simplest Possible 7-Tube Set. Complete instructions, actual size template. How to make a loop. All for 50 cents. Book Dept., Radio Digest, 510 North Dearborn Street, Chicago.

MISCELLANEOUS
Photos of Your Favorite Radio Stars. Ten cents and coupon appearing on another page of this issue will entitle you to one of the photos from Radio Digest gallery of stars. Radio Digest, 510 North Dearborn Street, Chicago.

PATENT ATTORNEYS
PATENT ATTORNEYS
PATENTS. Best fees. Highest references. Best results. WATSON E. COLEMAN, Patent Lawyer, 427 G Street, Washington, D. C.

BODINE TWIN-EIGHT R.F. COIL
A remarkable new radio frequency transformer that provides a very limited magnetic field with tremendous amplification. Very sharp tuning. For total satisfaction use BODINE TWIN-EIGHTS.
Price \$3.00 each, \$9.00 per set of 3 matched coils.
At your dealer or sent postpaid upon receipt of check or money order. Wiring diagrams free.
BODINE FOLDING LOOP AERIAL
Wonderfully efficient. Large enough to give good signal pick-up, but folds to fit in small box. Beautifully finished in mahogany and satin silver. The best loop at any price. Standard top \$8.50. Equipped with 5 points in switch \$10.00. Write for folder.
BODINE ELECTRIC CO.
1250 W. Ohio St., Chicago, Ill.

TRICK FOR ATTACHING REPAIR GUY



When I erected my aerial mast I put only two guy wires on it. The other night a strong wind came up and blew the mast down. As I was in a hurry to get the mast up again, I neglected to put more guy wires on it. Because it was too much trouble to take the mast down again, I took some wire, looped and twisted one end around one of the guy wires, as shown

in the diagram. Then I held the other end of the wire and walked along toward the post. The loop of wire slid up the slanting guy wire to the top. I then walked around the post once and tied the wire where I wanted it. The wire is then to be fastened to the post, making a third good guy wire.—Buell Beadle, Hartford, Kansas.

every evening about dusk. If the observers in this case had noted time very accurately, the source of the interference could have been located much more readily.

Fifth test: To determine from where the interference radiates by means of a portable radio receiver. In cases where a portable receiver is available the source of interference may be very often traced by this means. Some of the apparatus used by power companies and Radio clubs to locate interference from motors and dynamos, from street lighting circuits and house lighting wires, from telephone systems and high tension circuits, will be presented for duplication by those requiring such equipment. Each listener

has the job of seeing that his own set and the electrical equipment in his house are not causing interference to his neighbors. You should also assume some responsibility in the direction of locating troubles outside your house and reporting these troubles. If every listener would do this consistently and conscientiously, it can most definitely be said that the

RADIO TUBE RENEVER FOR USE ON FARMS OR IN THE COUNTRY
OPERATES ON THE BATTERIES OF THE RADIO SET
NO CITY LIGHTING CURRENT REQUIRED
REPAIRS FROM ANY REMOVABLE PLUGGERS BY PRICE
RUN-DOWN TUBES MADE GOOD AS NEW
LATEST LATEST FOR YEARS SAVES MANY TIMES THE COST
REPAIRS GUARANTEED 25 YEARS MONEY BACK
SENDING MONEY
RAY POSTMAN
CINCINNATI, OHIO

Nightingale
6-tube Set with Integral Loud Speaker \$75
A wonderful, sharp tuning set off beautiful tone, made complete in our own factory. Five tube assembly suffices for most stations, but volume can be tripled by using 6 tube terminal. No wasteful neutralizing condensers but perfect balance of parts. See Nightingale dealer or write to THE GUTHRIE CO., GRAFTON, OHIO
Makers of the famous Songbird Line

The wonderful SUPERFLEX radio
NEW CIRCUIT—ONE DIAL (one condenser—pat. pdg.) Not reflex. Volume, Clarity, Distance, Selectivity.
Sample to Rated DEALERS. TEST ONE.
RADIO PRODUCTS CORPORATION, (Inc.)
3816 N. 25th St. Birmingham, Alabama

22 1/2 Volt on-acid everlasting rechargable "B" STORAGE BATTERY \$295
Includes Chemical
45 volts, \$8.95; 90 volts, \$10.00; 112 1/2 volts, \$12.50; 135 volts, \$14.75; 157 1/2 volts, \$18.50. Truly the biggest buy today. Built by standard on any current including 22-volt systems. Any special detector plate voltage had. Tested and approved by leading authorities such as Popular Radio Laboratories. Over 3 years sold on a no-returned tape 30-day trial offer with complete refund if not thoroughly satisfied. Further guaranteed 3 years. Knock-down kits of street carriages. Complete "Howley" "B" battery charger, \$2.75. Sample cell, 35c. Order direct send no money—simply pay the expressman cost on delivery. Or write for my free literature, testimonials and guarantee. Same Day shipments. B. Hawley Smith, 317 Washington Ave., Danbury, Conn.

The new Crosley 4-tube 4-29 delivers an extraordinary performance because it has the Crescendone volume control which is equivalent to one or more additional tubes of tuned radio frequency amplification... \$29 without accessories.
Prices slightly higher west of Rockies
THE CROSLLEY RADIO CORPORATION, Cincinnati, Ohio
CROSLLEY RADIO
BETTER · COSTS LESS

CROSLLEY RADIO
BETTER · COSTS LESS
COUPON NO. 15
This coupon entitles the holder to one photograph selected from the Radio Digest Gallery of Radio Stars when accompanied by ten cents to pay the cost of mailing and postage. Three consecutive numbered coupons entitle the holder to three photographs when accompanied by 25 cents. Remittance must accompany the coupon. Cash at your risk. Add 5 cents to prevent checks for exchange.
Order by Number.
RADIO DIGEST PUBLISHING CO.
510 N. Dearborn St. Chicago, Ill.

interference in broadcast reception, aside from natural static, would promptly be reduced to an unnoticeable amount.
The staff wishes, at this point, to give credit for much of the information contained in this chapter to E. P. Peck of the Utica Gas and Electric company and M. E. Strook of the bureau of standards. All of the tests suggested have been carefully tried out both for ease of accomplishment by the unskilled and for value in eliminating trouble.

(Next week the series reaches the construction of trouble shooting apparatus and complete data and operating instructions will be included.—Editor's Note.)

A "RADEX" Tuning Chart
Shows by dial numbers, wave length to which set is tuned. Tells where to place dial for any station. Identifies programs received without announcement.
Adapted to any set
Send 25c Coin or Stamps
RADEX, Box 143-S, CLEVELAND, O.

FOR CLEAR, QUIET "B" POWER
RADIO Storage "B" Battery
22 Cells Lasts Indefinitely—Pays for Itself
Economy and performance unobtainable elsewhere. Recharged at a small fraction of cost. Delivers maximum current that is clean, pure and quiet. Approved and listed as Standard by leading Radio Authorities, including Post Radio Laboratories, Post Radio Standards, Radio Sales, Radio Sales, Radio Sales, and other important institutions. Equipped with Special Fuller Case, an insurance against acid and leakage. Extra heavy plating. Heavy rugged plates. Order yours today!
SEND NO MONEY—Just state number of batteries to be received. Extra effort: batteries and we will ship discount order by expressman after examining batteries. 5 per cent discount for cash with order.
WORLD BATTERY COMPANY
1219 So. Wabash Ave. Dept. 76 Chicago, Ill.
Sole agents of the Famous World Radio "B" Storage Battery
Pittsbg: 6-204, 205 Amp. \$11.25; 150 Amp. \$12.25; 130 Amp. \$14.00.
All equipped with Solid Rubber Cases.
World STORAGE BATTERIES
KOKA-WVAF-WGN-WIS-KHU-NSO-KAF-WVY-KOD
Set your Radio Dial at 210 meters for the 100 watt World Storage Battery Station, WAB, Chicago. Watch for announcements.

Photogravures of Your Favorite Artists
GALLERY OF RADIO STARS
21 E. L. TYSON OF WWJ
Size 11x14 inches

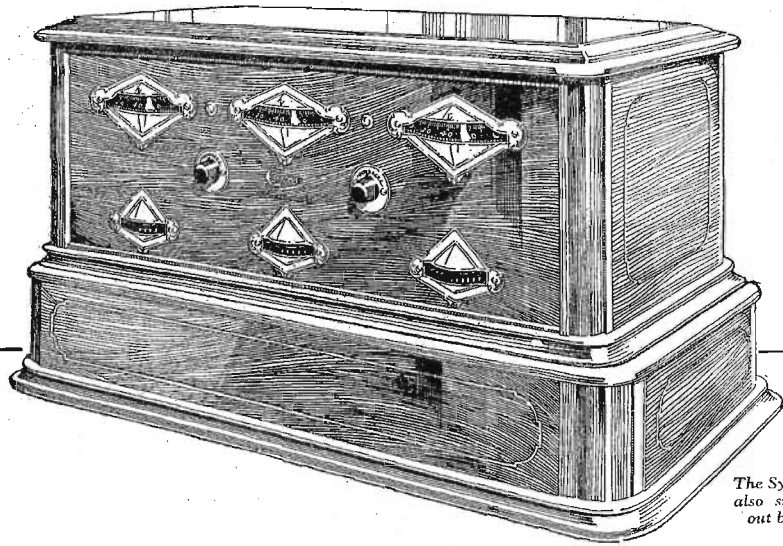
By special arrangement, Radio Digest is able to offer its readers a great opportunity to secure fine photogravures of their favorite Radio stars at practically no cost. Below is only a partial list of the photogravures now included in the Gallery of Radio stars. Complete list in March 20 issue.
6 George Hay, 1924 Gold Cup Announcer
7 Harmony Girls, Edith Carpenter, Grace Ingram
8 Ford and Glen, Luitby Boys of WLS
9 "Rock" (notated) of WEA's chain game
10 The Hired Hand, James "Substitute Announcer" of WBAP
11 Bob Emery, Big Brother of WEEI
12 "Bill" W. G. Hay, ex-KFKX, now of WLII
14 Happiness Boys, jovial singers of WBS
15 Lambdin Kay, "Little Colonel" of WEF

COUPON NO. 15
This coupon entitles the holder to one photograph selected from the Radio Digest Gallery of Radio Stars when accompanied by ten cents to pay the cost of mailing and postage. Three consecutive numbered coupons entitle the holder to three photographs when accompanied by 25 cents. Remittance must accompany the coupon. Cash at your risk. Add 5 cents to prevent checks for exchange.
Order by Number.
RADIO DIGEST PUBLISHING CO.
510 N. Dearborn St. Chicago, Ill.



It is written:
 "A perfect vase never came from a bad potter's wheel."
 When one realizes its origin, the superior reception of the Synchronphase is not to be wondered at.

Doctor Why



The Synchronphase is also supplied without battery base.

Why the Synchronphase Appeals to the "Fan"

HE, more than anyone else, understands what Grebe quality means. He best realizes why Grebe construction is reflected so surely in the superior reception of the Synchronphase.

The Grebe Synchronphase, built to satisfy the "fan", has quickly won first place in the opinion of the average radio user.

Ask your dealer to show you what Grebe reception means.

A. H. Grebe & Co., Inc., 109 West 57th Street, New York

Factory: Richmond Hill, New York

Western Branch: 443 So. San Pedro St., Los Angeles, Cal.

Grebe "Colortone"

Grebe Biscular Coils
 Reg. U. S. Pat. Off.
 and
 Low-wave Extension Circuits

Flexible Unit Control

This company owns and operates stations WAHG and WBOQ; also low-wave rebroadcasting stations, mobile WGMU and marine WRMU.

The GREBE SYNCHROPHASE

TRADE MARK REG. U.S. PAT. OFF.



All Grebe apparatus is covered by patents granted and pending.