

New Lodge N Circuit; Trouble Chart

Radio Digest

TWICE
A MONTH

ILLUSTRATED

FIFTEEN
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SECOND JULY NUMBER, 1926

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Vol. XVIII No. 1



If It Doesn't Work—Then?; WOAI Intrigues Border Vets; KTAB, Shepherd of the Air; Ending "Sure-Fire Stuff"; KFWO, Sitting on Top of the World; Women's Program Index

No. 11 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:

.....of Station.....
 (Announcer's Name) (Call Letters)

Signed

Address

CityState

7-15-26

EAST NEEDS PEP TO CAPTURE GOLD CUP

ARNOUX, MAY AND BROKENSHIRE STILL 1, 2 AND 3

Chester Gaylord, WTAG, to Fourth—Who Will Win?—Bonus May Bring Surprise Ending

If the East is going to repeat its surprise of 1925 and again capture the Radio Digest Annual Gold Cup Award, it will of necessity require considerable votes, for indications show western announcers still firmly entrenched in the first two places.

G. C. Arnoux of KTHS is still first with a 11,000 vote gain. Earl E. May of KMA remains second with a 6,000 vote increase and Norman Brokenshire of WJZ, strongest eastern contender, continues to hold third and shows an 8,000 vote gain.

Chester Gaylord of WTAG, sixth in last report, has jumped to fourth over the heads of Pat Barnes of WHT, who has been forced to fifth, and A. S. Kyne of KMMJ, now pushed down to sixth. Gaylord gained 4,000 votes, but this speed isn't fast enough to catch up with any of the present three leaders, considering the rate they are adding votes.

Who'll Win? Nobody Knows

Nobody can predict who will win the solid gold 1926 cup and title of world's most popular Radio announcer for 1926. The bonus votes may throw off the final counts of many present leaders and bring a dark horse to the top. Watch out for the bonus votes which are explained in detail further on.

The coupon ballot numbered eleven appears this issue. There are three more to appear, the last one being published in the first September number of Radio Digest. The end is fast approaching.

Gaylord's advance was the only surprise above eleventh place since the last published report. Henry Field of KFNF, the Hired Hand of WBAF, Phillips Carlin of WFAF and Peter MacArthur of WOC remain seventh, eighth, ninth and tenth respectively as before.

Below tenth place climbs were made by John of WLW, Grubb of KFAB, Griffin of WHO, Johnson of WCCO, Konecky of WOAW and Cole of WHO. Kay of WSB, Sullivan of WQJ, Husing of WRC and Kaney of KYW remained in their places, while losses were taken by Randall of WSMB, Palmer of WOAW, W. G. Hay of WGN and WLIB, Schilling of WHB and Isbell of KNX.

Standing of Leading Twenty-Five

The present standing of the first twenty-five candidates is given below. The figure in parentheses following the name and stations of certain announcers, indicates their order in the standing last issue if they were in the first twenty-five:

1. G. C. Arnoux, KTHS (1).....33,739
2. Earl E. May, KMA (2).....25,179
3. N. Brokenshire, WJZ (3).....24,110
4. C. Gaylord, WTAG (6).....15,540
5. Pat H. Barnes, WHT (4).....15,096
6. A. S. Kyne, KMMJ (5).....14,402
7. Henry Field, KFNF (7).....11,287
8. The Hired Hand, WBAF (8)..... 9,248
9. Phillips Carlin, WFAF (9)..... 6,681
10. Peter MacArthur, WOC (10) 5,483
11. Louis J. Johnen, WLW (12)..... 3,967
12. Gayle V. Grubb, KFAB (14)..... 3,782
13. C. R. Randall, WSMB (11)..... 3,715
14. R. W. Griffin, WHO (15)..... 3,621
15. Lester Palmer, WOAW (13) 3,186
16. Lambdin Kay, WSB (16)..... 2,465
17. Jerry Sullivan, WQJ (17)..... 1,743
18. Paul Johnson, WCCO (20)..... 1,738
19. J. T. Schilling, WHB (18)..... 1,706
20. E. Konecky, WOAW (25)..... 1,581
21. Edw. B. Husing, WRC (21)..... 1,542
22. W. G. (Bill) Hay, WGN (19) 1,520
23. Harold Isbell, KNX (22)..... 1,402
24. Sen Kaney, KYW (24)..... 1,385
25. N. Dean Cole, WHO..... 1,375

Although the order has not changed for

the five leading Canadian contestants who seek the special 1926 Canadian Silver Cup and title of Canada's most popular Radio announcer for 1926, Miss Lillian Shaw of (Continued on page 29)

ROMEO IS KEEN FOR PRETTY COVER GIRL

PROPOS of the Radio Digest cover girl, this issue, Marcella received the following letter from a Montana fan which was forwarded to our correspondent, Mr. G. L. King, Los Angeles: "Marcella: When weather and other conditions permit I find myself holding the dials on KHJ, Los Angeles, for a certain Miss Luella James. I imagine she's a pip from her voice. Can you tell me anything about her?"

Romeo de Butte.
To which our Mr. King replied: "Marcella: Your air mail of 21st about Luella James. "Miss James sings exclusively over KHJ, the Los Angeles Times station. She is five foot three; weighs 118 pounds; has hazel-brown eyes, medium brown hair—NOT BOBBED—and a VERY light complexion. She is studying voice under tutelage of Sam Glasse. She has a good contralto voice, very pleasing personality and other qualifications best appreciated when seen on the sands of Redondo Beach, near her home.

Very truly,
G. L. K."

SHORT WAVES

By Marcella

Marcella had a short vacation just before putting this edition to press and she met lots of famous people. It was on the occasion of the recent re-opening of KVOO, the "Voice of Oklahoma," at Bristow, whither she went with her boss. Let's see, Boss, whom did we meet? Oh yes, Frank Lane and Roy Griffin of KVOO, Adams Colhoun of WFAA, Gayle Grubb of KFAB, Lester Palmer of WOAW, Peter MacArthur of WOC, Henry Field of KFNF, G. C. Arnoux of KTHS, and Bob Graham of KFJP. Just prior to that trip several notable visitors shook hands with me at the office. These were the Mona Motor Oil Twins of KOIL and the country-at-large, and Eugene Konecky of WOAW. What do you want to know about them? My Boss says I can tell anything I want—so ask me.

"M", "Inquisitive" and several others have asked about H. Dean Fitzer, the "Singing Announcer", Chief of the Nighthawks and director of WDAF. Following are just a few of the things he is willing to admit about his present and past. Fitzer, early last fall, succeeded Leo Fitzpatrick, the Merry Old Chief of the Nighthawks. Fitzpatrick went to WJR and took his title with him, becoming the Merry Old Chief of the Jewett Jesters. Fitzer's friends were soon calling him "the Singing Announcer", so he bowed and took unto himself the title. The Nighthawks hear his songs far into the night, but rest assured, he is modest enough to give others a chance too. He was born in Kansas City and hopes to die there—after a reasonable length of time of course—taking only one great sojourn in foreign parts. As a warrior back in '18 he played a slide trombone on a destroyer. Between the period of the war and his succession to the WDAF microphone he was a newspaper man, which seems to be the background of so many leading announcers. He is twenty-seven years old, 5 feet 11 inches tall, wears brown eyes, browner hair, no bow ties and few Tuxedos, has a wife, and a baby to spank (Mr. Fitzer forgot to put the comma after wife so it was inserted by Marcella). The fellow informs me it does not add to an announcer's mail to admit he's married, but Marcella knows all, tells all.

Another promised sketch for this issue is that of Ernest Rogers of WSB, "Willie the Weeper" or "Old King Tut, the Radio Nut"—take your choice of name or nom de Radio—who was originally "discovered" about three years ago by Colonel Lambdin Kay, WSB's drawing director. Age, 27; married seven months; height, trifle over five feet; eyes, baby blue except when someone looks at his new wife when they become violently green; complexion, indoor tan on a "skin you love to touch"; hair if any, used to be red; ambition, to travel around the broadcasting stations for some big corporation selling soap, sarsaparilla, or sardines by singing songs about them; present occupation, feature writer and general assignment man for the Atlanta Journal. "Willie" adds many interesting bits in his letter to me. He says he prefers blondes, but since his wife is a brunette, to say nothing about it, so I won't. He notes that the Keith circuit thinks he ought to go on Loew time and the Loew circuit vice versa; that he has sung "Willie the Weeper" 2,777,777 times up to last Tuesday; that his chief claim to distinction was when he elected himself president of the Red Head Club of WSB at the organization meeting of the outfit, he being the only voting member present; and that his favorite Radio periodical is the Radio Digest, because he adds, "they printed my picture a couple of times, you know." He has recorded "Willie the Weeper" and "My Red Haired Lady" for Columbia and Okeh, and Ernest Hare recorded Mr. Rogers' "Tune in with My Heart." "Forgiveness," another of his songs, has been published, and in addition he has written many other tunes. He remarks, however, that he did not write "I Wonder What Became of Sally".

Wendell Hall, speaking of red heads, is off the air until fall. During his vacation he will get a new repertoire of songs and stories ready for the air. Marcella also happens to know that at least a few weeks of his time will be spent with "Gloomy Gus" or Gayle Grubb of KFAB, striking terror into the hearts of Nebraska fish with rod and reel.

Yes, "Marguerite", Chester Gaylord of WTAG, Worcester, Mass., is still single and eligible. Your interest in him as a candidate for the 1926 Gold Cup is shared by "Roxy" of WFAF, for I understand the latter notable sent Mr. Gaylord a vote to help his count along. Incidentally, three newspapers, the mayor, postmaster and other Worcester civic leaders are campaigning for the victory of the announcer (Continued on page 15)

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Looking Ahead

Big Brother Bob Emery at Boston Has So Many Brothers He Doesn't Know What to Do—almost but not quite. Thousands of them he never has seen. There are thousands of little sisters in his big Radio family, too. They all get together five nights a week for air adventures and the story appears in the Radio Digest dated August 1.

When John Wolf and Ned Tollinger, a Couple of Town Boys at Council Bluffs, happened to tune in together while coming from a party in a flivver, they little dreamed it would lead to national fame. But it did. The story appears in the next Radio Digest, on newsstands July 31.

Another Van Demark Short Story Will Appear in the Next Radio Digest. It is called "The Fall Guy." Van Demark comes from Texas where O. Henry first established his fame as a story writer. They tried to make a Fall Guy out of Dick but Dick turned the tables. You'll like it.

Four Years Ago WEAQ, the Station of Ohio State University, at Columbus, began broadcasting educational subjects interspersed with bits of campus frivolities. It has established an unusual record which will be featured in Radio Digest soon.

It May Be a Little Station as Electrical Power Is Rated, but WFBG at Altoona speaks with the voice of the mountains. This voice is wafted from one coast of the continent to the other. There is a very human touch to its activities as will be told in an early number of Radio Digest.

How Do You Like the Trouble Chart on Page Eight? The technical staff promises another easily understandable and helpful article on Radio sets' tricks and foibles. Watch for it in the August 1 issue, on newsstands July 31.

What's New in Receivers? A Fair Question—and one whose answer you, no doubt, are interested in learning. Milo Gurney surveys the market and describes the outstanding offerings of the opening season. These thumb nail sketches will interest you.

Special articles about broadcasting stations and artists, with photographs, and NON-RADIO fiction 5,000, 10,000 and 30,000 words in length are desired. No manuscripts accepted unless typewritten and prepaid, or returned without return postage being inclosed. All manuscripts are sent at owner's risk.

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UNUSUAL RADIO SUMMER HERE

HONOR MARCONI FOR INVENTION OF RADIO

THIRTIETH ANNIVERSARY IS CELEBRATED IN ITALY

University of Bologna Plays Host to Famous Scientist—Townsperson Laud Former Resident's Success

BOLOGNA, Italy.—The thirtieth anniversary of the first Radio patent has just been celebrated here, by a ceremony in honor of Senatore Guglielmo Marconi.

The ceremony was held in the old university, in the presence of Signor Belluzzo, minister of economy, the Syndic of Bologna, representatives of many scientific societies, and professors of the university, who wore their picturesque traditional gowns. After a few words by the Syndic, Senatore Marconi rose amid hearty cheering to deliver his speech.

Although during the last thirty years he had, he said, had to remain almost always absent from his native city, he had never forgotten it, and many times, during his 86 journeys across the Atlantic, in the wildernesses of Canada, and in Ireland, his thoughts had gone back to his dear Bologna, to which he felt himself bound by so many sacred affections and memories.

Marconi Recalls Beginning of Radio

The famous inventor then recalled the beginning of his invention, the difficulties he met with, and the result he had finally achieved. He then reviewed the progressive and widespread application, and the benefits of Radio, mentioning as its last achievements, the service rendered by broadcasting in England during the general strike and the message from the Norge. He concluded by recalling his great teacher, Adolfo Raighi, the Bolognese scientist, who made important studies of electrical waves.

After the ceremony a gold medal was presented to Senatore Marconi by the commune of the university. The rector also announced that a yearly prize for the best science student had been instituted under the name of Guglielmo Marconi.

Later Senatore Marconi was entertained at dinner in the city hall, and in the evening he motored to the mountain village of Sasso, where as a boy he passed his summer holidays, and where in the villa of his family he made his first tentative experiments in Radio.

A. Atwater Kent Gets Wooster Honor Degree

Aged Institution Recognizes Work of Noted Manufacturer

WORCESTER, Mass.—"Radio is the young man's field," declared A. Atwater Kent in a recent address given to the graduating class at Worcester "Tech" where Mr. Kent was formerly a student.

"There never was a time when the graduate of the technical school had the opportunity he has today," continued Mr. Kent. "Nor was there ever so wide a field for his knowledge, nor so great a chance for him to make good."

"In the field of Radio alone, the development is so rapid that the most highly skilled engineers are required to keep pace with them. It appeals to the imagination of the young man and demands his highest technical skill. Not even we who are in closest touch with the Radio field can tell exactly what baffling mysteries of the air yet remain to be solved."

Worcester Polytechnic institute is one of the oldest institutions of its kind in the United States and yet it never had conferred an honorary degree until this occasion of the set manufacturer's visit. In recognition of his efforts in arranging a national broadcast of famous artists and of his success in the development of popular Radio reception the institute conferred upon Mr. Kent the title of doctor of engineering.

KNX Adds Two Pickups

LOS ANGELES.—Station KNX, "The Voice of Hollywood," has acquired two new remote controls by tying in a theater and a beach club by land wires. A total of nine is now used.

The theater is the new Carthay Center, located midway between Hollywood and Beverly Hills, and said to be one of the finest movie palaces in the West, while the beach club is that of the new Edgewater club at Santa Monica, described as America's most sumptuous seaside club.

RADIO DROWNS OUT EVIL DENTIST DRILL

CHICAGO.—Dr. G. M. Smith, Chicago tooth puller, has discovered a new use for Radio—and if you ever had a tooth excavated by one of those devilish drills, you'll be interested. While treating Paul Ash, whose performances are broadcast by WGN each Friday night, Dr. Smith got his bright idea. "There's no jazz in that drill, ouch!" commented Ash. The next time Ash sat in the chair he was surprised to hear the strains of orchestra music. The patient forgot the drilling.

GOOD RADIO QUARTZ IS HARD TO LOCATE

WASHINGTON, D. C.—An apparent scarcity in quartz, super-induced mainly by its newly discovered use in Radio oscillators in transmitting sets, has been reported by the bureau of standards. There may be an abundance of the crude quartz available, it was pointed out by the bureau of scientists, but the quality necessary for use in radio frequency sets at the bureau apparently is unobtainable in sufficient quantities. Quartz used in this work of necessity must be of fine quality.

"MISS LOS ANGELES," KFI ARTIST



It is quite possible that Radio show visitors in California will have the privilege of hearing the somewhat frail but remarkably sweet voice of the little lady pictured above. Reason for the charm in the voice is apparent for the lady is none other than "Miss Los Angeles" herself, runner-up in last year's Atlantic City bathing beauty contest. Of course she has another name. She is known to her fellow artists at KFI as Miss Adrian Dore. Be sure to hear her when she is announced on the programs—then, see her if you can.

Bad-Time Stories Make Morris Leaf in Demand

Pacific Coast Grown-Ups Amused by Revised Versions

HOLLYWOOD, Calif.—The latest sensation for listeners on the Pacific Coast is Morris Leaf, the Bad-time Story Man, whose Radio appearances have made such a hit that it probably will not be long before the vaudeville stage reaches out to claim him.

Morris Leaf came to Hollywood in the guise of an artist commissioned by an eastern movie magazine to sketch forty portraits of famous screen celebrities. His task completed, he decided to remain, falling under the lure of the sunny skies, palm trees and sandy beaches.

One night, while visiting KNX with a friend who was a Radio entertainer, he was called upon to make some remarks over the microphone. On the spur of the moment he gave one of his "bad-time" stories. In Hollywoodese, it was a "kick" and Morris Leaf was commanded to return with more. This he did until today he is described as one of the few who can dispense humor over the Radio and get away with it.

"Bad-time" stories it might be ex-

NATIONAL OPEN GOLF CLASSIC GOES ON AIR

WEOA Handles Matches Played on Scioto Course

COLUMBUS, O.—America's greatest golf classic, the National Open tournament, July 8, 9 and 10, was broadcast to the ears of golf fans by WEOA, the Ohio State University station.

Chief Engineer R. C. Higgey, working with George Sargent, "pro" at the Scioto Country club links, where the tourney was held, arranged the service direct from the links which employed a portable telephone transmitter. Mr. Sargent is president of the national organization of golfers and is himself a former open champion. R. Lee Henderson, WEOA's well-known and experienced sports announcer, headed the crew of announcers which described the matches on the Scioto course.

plained, are stories all youngsters are familiar with, given with a dialect and modern touches. A few of the knockouts are, "Punkinhontas and Capt. John Smith, Inc.," "Little Red Riding Habit," "The Piper of Heidsick," "The Fisherman" and many others conned from the Arabian Nights, fairy lore and tales of history.

EVEN BETTER PROMISE FOR COMING YEAR

Cooler Weather Forecast

1927 May Find Much of United States with No Warm Weather Is Radical Prediction

By Eric H. Palmer

NEW YORK.—Shifting ice in the Arctic wastes may mean a summer of extraordinary DX reception for Radio fans. Cool days in June and July have been attributed to the heavy discharge of polar ice, in addition to which sun spots and reduced solar radiation are given as primary causes for the unusual weather conditions.

The outlook for unusually good reception during the next two months is excellent if the prophecies of scientists regarding the weather come true.

Everyone knows that Radio reception falls off in the heated term when the days are longer and what we call static is prevalent. Recently, with cool evenings, there has been noticed a vast improvement in transmitting stations and better receivers. Atmospheric conditions have been conducive to such improved reception.

More Radio Weather in Store

Now it is predicted that we are to have many more cool days in July and that next year there will be no summer at all!

Steamship captains are heading further south this year on account of icebergs. Amundsen, the explorer, reported open ice 150 miles or more from Spitzbergen during his flight last year, and Byrd, flying over the same route, stated that the ice has come all the way down to that island. The whole North Atlantic seaboard has felt the northerly winds.

Undoubtedly, many Radio fans have read with the greatest interest the predictions of Herbert J. Brown, the professional long-range weather forecaster in Washington, who foretold the cold days in June this year and has stated that in 1927 there will be a frost every month in the northeastern part of the American continent.

Brown's Weather Forecast

Mr. Brown bases his forecasts on the changes in the amount of heat given off by the sun and absorbed by the oceans.

"It has taken since the beginning of 1922," he declared, "for the northern Pacific area to exhaust the momentum of the sun's heat which began to drop nearly five years ago. Cold air will come into the Canadian northwest and deep into the United States next winter and in 1927 from the arctic circle and Bering sea. Cold also will come from cold waters which now extend from California to the Hawaiian islands."

The change in the weather may be very disappointing and damaging to many interests, particularly to agriculturists. Looking at the matter from the standpoint of Radio, however, we can only venture the opinion and the hope that we will have the finest summer reception this year ever reported and that it appears as if 1927 will be the banner year.

Radio Helps Baseball Says Rogers Hornsby

Cardinal Manager Himself Listens to Ball Broadcasts

ST. LOUIS.—Rogers Hornsby, manager of the Cardinals here and demon batsman, believes baseball is having its biggest year and credits Radio with contributing to that end. The famous "Rajah of St. Louis" remarks:

"While the attendance figures from all over the country indicate that baseball is experiencing one of its greatest years, it is my opinion that Radio has done considerable in maintaining interest in the national pastime. This is especially true in out-of-the-way places where the major league clubs do not appear.

"Through Radio, baseball is brought right to the homes of those not fortunate enough to be able to attend the games.

"I am a Radio fan and enjoy listening to the reports of the games in which the Cardinals do not participate."

KTAB—"Shepherd of the Air"

LITTLE Weather-Blistered Church in Oakland, California, with Its Pastor, Rev. G. W. Phillips, Rises from Obscurity on Wings of Radio. Popular Programs Presented During Week.

This manner of belief and faith has not been changed by the great influx of the hordes from the more indifferent—and slightly idolatrous East where the golden calf and mammon have in some instances supplanted the higher spiritual side of life. But even among these there are some who have come down from the Puritans and the Quakers and more of late the Methodists, Baptists, Presbyterians, Congregationalists and others who have established their "meeting-house" on the four-corners of America.

For these, who are the bed rock of our nation, Sunday service is the event of the week. It is the feast day for the soul—a day of holy communion with God and fellow man. Nobody misses church—that is, nobody who can very well avoid it. But there are cases—yes, many, many of them—where seemingly unsurmountable obstacles do prevent. Some are held down by the weight of years, others have been stricken to their beds and for others who live far on winding roads to the logging camps and mines there is no "meeting-house" within a day's journey.

Eventually this latter situation came to the attention of the directors of one of the largest broadcasting stations in San Francisco. Here was a

chance for real service. They consulted each other and decided to seek a preacher—a Shepherd of the Air—one who could understand the needs and supply them, a man who could speak the language of the little-church-on-the-hill as it exists from Puget Sound to Miami.

One day a stranger paused before the Tenth Avenue Baptist church of Oakland. It was just a little church. Obviously wealth had not paused here to display its pious opulence. The clapboards were warped and scaly with weather-shrived paint. The eaves were rusty and the shingles were ruffled like the feathers on a mother hen who shelters her chicks in a tempestuous storm.

But the faces of the people who entered—they glowed and beamed from a light that came from within! The stranger watched them. Then he too entered and sat in a pew near the door. His aloofness melted under the simple, straightforward message uttered by the Rev. George W. Phillips from the plain, little pulpit. There were no flourishes; no wild, grandiloquent phrases—he read from the Bible and interpreted the precept, "Love thy neighbor as thyself."

A few days later the pastor found a blue envelope in the parsonage letter box. He was surprised at what

(Continued on page 30)



Mr. Howard Eastman (left) pianist and director of the Lorraine Trio who play at the KTAB luncheon concerts each sunny, California noon.



At the top in the big picture that is Miss Adelaide Ashton, one of the popular operatic favorites of KTAB and whose soprano voice is well adapted to the microphone. At the left is Miss Millicent Benhoff, Russian artist with a mezzo-soprano voice that melts like liquid into the air. Mrs. Billie Empey is the lady with the saxophone, one of the regulars on the KTAB programs. Below are the Boulevard Players who recently presented a story of the California gold rush days for the Oakland listeners.



By HAROLD P. BROWN

OUT beyond the rugged hills of the West country there is a little church much like the tens of thousands of other little churches that dot this country over, only THIS little church has been lifted on the wings of fame until now it sings its message of salvation and redemption to the seven seas and the continents that touch thereon.

Of course there is nothing miraculous or supernatural about it at all—unless you consider the episodes of the beginning as guided by a hand above the ken of man. It has merely converted the regulation church spire to a Radio antenna and there is a microphone before the pulpit.

In California and all the vast territory of the Sierras, the Rockies, the vales between and the shores of the Pacific, there dwell a people who love their God and worship Him. They maintain the family altars of the fathers and at night they kneel by their beds to offer prayers of thankfulness for the day that is done and supplication for grace for the night and the day to come.

Sitting on Top of the World

CALIFORNIA Writer Declares Major Mott at KFWO, Catalina Island, Occupies Top Seat of Radio Sphere, Where He Chats at Will with Orient, Europe and Antipodes.

By NETTIE DUGA PILCHER

WE HAVE much to forgive the writers of modern jazz songs. More frequently than not they wear us down with the continuous reiteration of some catch word or bit of slang. On occasion, though, we forget all this and feel truly grateful for the popularization of an adequate and satisfying phrase.

"Sitting on top of the world," to me is one of these. It brings to mind not only the feeling of joy that the one who sits there must experience, but also the accomplishment that preceded attainment of a seat on the world's top. Be the accomplishment big or little, this feeling of sitting on top of the world must be the reward of one who triumphs,

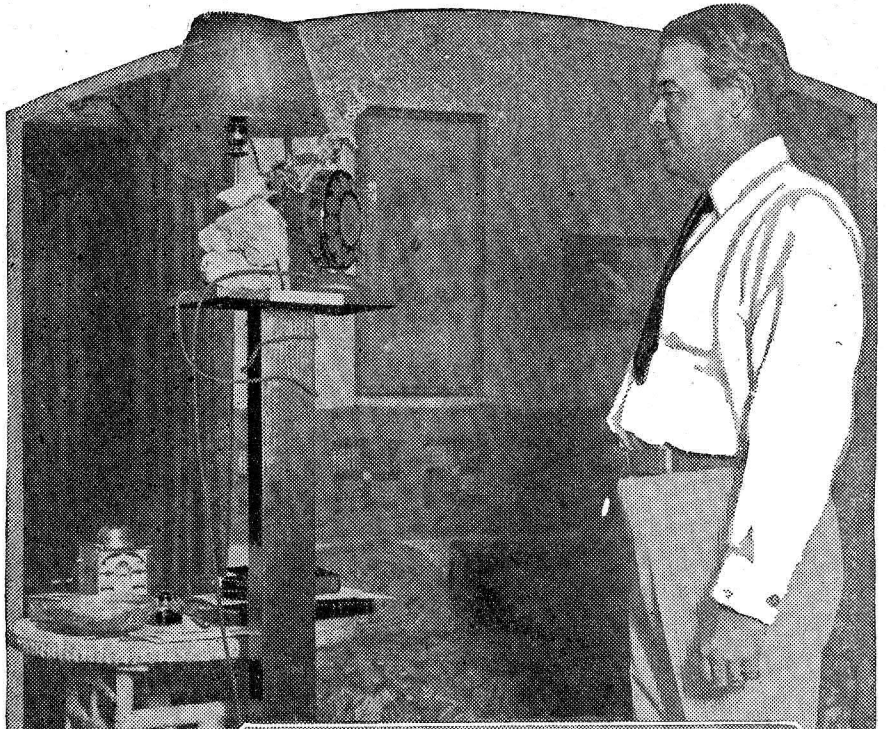
whether it be in love, literature, science, or the business world.

Surely Lawrence Mott is entitled to such a seat, because, from his island home he talks with the world. He has worked out Radio communication to its Nth degree. Tomorrow may bring something new again, this earth revolves so fast, but today his demonstrations stand as a record, and always will.

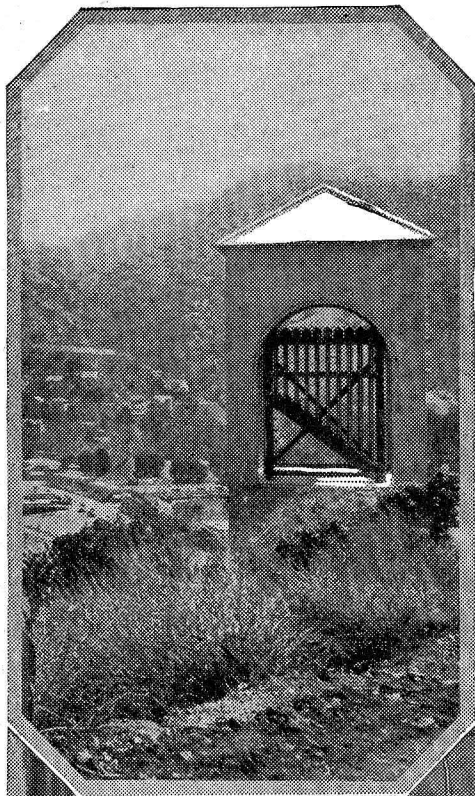
Veritably, this man occupies a unique position on the world's pinnacle. Appreciating his happy circumstances, he, in return gives much to the world by way of Radio. He gives it freely, generously and without charge.

Situated on a gloriously beautiful island, thirty miles at sea off the coast of Southern California, amid towering mountains and jagged cliffs, shaded canyons, sandy strands of beach bordered with transparent turquoise waters, is the Radio station, KFWO, which this fortunate man owns and operates.

At left is chalet from whence famous Wrigley chimes are broadcast by remote control each day over KFWO. Major Lawrence Mott (right) in his army uniform. Below, Miss Frances Hewitt and the KFWO cat whose purr has been heard in Alaska and the canary whose trill has been heard in New York from Catalina.



Above are two views of Major Lawrence Mott, owner and operator of KFWO at Avalon, Catalina Island. Upper photo shows him in comfortable shirt-sleeves before the mike and below he is in the tropical palm grove from which the station rises.



MOST broadcasting stations and their programs are as excellent as they are numerous, but here is one station with a few distinctive features.

Major Mott repays the world from his personally conducted station by sending out with his entertainment quantities of good fellowship, cheer, sunshine of thoughts, happiness, and encouragement. There are no paid programs from KFWO under any consideration and nothing is advertised therefrom!

Isn't it a fine feeling, once in a while, to know that there are folks who still believe in doing things for the sheer love of the doing; who are interested enough to experiment that the other fellow may be taught. And isn't it fine to be on the receiving end, once in a while, and to sit back in an easy chair drinking in good music or pleasant words without a care whether your mattress manufacturer, your stock broker, your doughnut fryer, or the man who supplies your tires pays the bill.

KFWO has been, by the manipulation of one letter, turned into the slogan, "Katalina for Wonderful Outings." These words, appearing on Major Mott's stationery, are as near to advertising as the island station ever gets, but the slogan is clever so we forgive him.

Even in the matter of souvenirs has KFWO proved to be different. Quite in keeping with its location and the spirit of the station, three ounce bags of rich silver ore are mailed out to all who write to Major Mott or to KFWO.

This ore is obtained at the Wrigley mines on the island. Four hundred and ninety-one bags of ore passed through the Avalon post office in seven weeks.

Perhaps it is unfair to leave Lawrence Mott so long without a more formal introduction lest you miss knowing some of his more serious achievements. Major Mott bears his rank in the U. S. A. Signal Corps, O. R. C., and he conducts for his government a very powerful experimental station, 6XAD and 6ZW, of from 500 watts up to 2,000, at will. This part of the Mott station on Catalina Island is housed in a building by itself and is purely for research work for the U. S. Signal Corps at Washington and in conjunction with the Bureau of Standards, Radio department, also at Washington.

USING telegraph only on ten, twenty, and forty meters for transmitting purposes, this Radio wizard has daily communication with Australia, New Zealand, China, Japan, Java, Germany, England, France, Italy, Holland, Switzerland, and Cape Town, South Africa. In like manner communication was maintained with both of the MacMillan expedition.

If this isn't sitting on top of the world, what is?

All of which remarkable effort was accomplished on forty meters, using Western Electric tubes and apparatus of the latest design with 500 watts power. Major Mott uses specially designed Radio apparatus manufactured

(Continued on page 28)

WOAI Intrigues Border "Vets"

"TAKE Me Back to Old San Antonio," Sing Soldiers of the North as They Tune in Texas Station and Recall Days When Mobilized to Keep Villa Beyond the Rio Grande

IN THE minds of many soldiers of the North who camped round about Fort Sam Houston during the World war, San Antonio lingers as a sort of dream city. Within its environs they found many a happy holiday. Time has softened the harsh outlines of the rigorous camp life—time and memories of a certain cruel, bloody, bone grinding army life that enchained them a little later.

The two experiences stand apart. They cannot be compared because there is little or nothing in common that is of consequence to compare. Tongues may be silent about the real war but wag loquaciously when it comes to telling tales of life "on the border" with the general hospitality of the Texas people in the background.

So it happens that Texas broadcasting stations are popular in the North. Grizzled veterans of the "Villa War" will set the dials at WOAI or some other Texas station and hark back a decade, the days "way back when—"

Little Jack Downey was one of these. He had been through the whole mess of it and when he came back to his little flat on Green street, Chicago, it was hard for him to find a job sufficiently entertaining to be maintained permanently. He joined the police force, hoping to get a chance to battle some of the gun gangsters in the bad lands. But no such luck favored him. One day, not far from his home, a big warehouse burned and he saw a batallion chief with six of his men slide down a line of hose from the seventh floor through billowing clouds of smoke and flame. Three of the men had to be carried away in stretchers and one died later in the hospital. So Jack Downey decided to join the fire department.

Just a few days before the time that these events are being set down Jack came out of the post office building on Dearborn street at Quincy. A tall and soldierly man was coming up the steps. While the man was still two steps from the top and just about level, eye to eye, with our hero, Jack jabbed out a sturdy arm and caught him by the shoulder.

"I can't be wrong!" exclaimed Jack, "but it's me old buddy, Pete Cahill, or I'm a dead one or he is and this is his ghost."

"Jack Downey of the old Fightin' Seventh!" said the other as their two palms slapped together and they stood grinning in silence for a moment, "and 'tis neither of us that's dead—yet. Sure, and where have you been hidin' out all these years. I haven't seen you since—since, not since that night we chased them disrespectful spicks out of the alley at San Antonio for makin' familiar eyes at the girl who had been singin' for the boys at camp."

"Now, that's the truth," replied Jack while crowds moved around them in and out of the big federal building. "And I remember the occasion well, 'twas a little alley beside the opery house of the plaza where we brought the girl for the show. An alley it was but a street they called it and it ran back somewhere to that little creek, dignified by the name of a river. I was most drowned tryin' to find you after you had chased one of the toughies into it. Wherever did you go, Pete, from there."

"That's something I never could quite make out myself because after I slipped on the stones in the river I woke up in a civilian's house and when I went back to the camp the old Fightin' Seventh had busted up into another outfit and all my buddies were gone. But that's long ago and I've been to Europe and back since as I suppose the same of you. I see by the uniform you're a fireman."

"'Tis a good job but monotonous. I find nothing more excitin'. Sure, drivin' for the chief I get to a fire or two a day and there's a bit of kick in slashin' the old man's red buggy up the boulevards doing sixty or better and watchin' the traffic scatter right and left and up the lamp poles for those caught on the islands. It's dull, though. Some days two fires and maybe three and that's all. Never a fire that's worth the fightin'. But, Pete, have ye ever been back to the border?"

"Not even once, yet. But some day I'm goin' for I have a recurrin' appetite for the chili and chiladies and hot tamalies they served in that Mexican restaurant in the same alley across from the opery house we were talkin' about. You remember it, Jack Downey?"

"Indeed, I do Big Boy and I'm goin' there tonight though I'll not be served at the tables. But I'll hear the Mexican moosishuns and the clink of the chili bowls. (Continued on page 29)

Keeping WOAI pepped up and in the forefront as one of the most popular stations of the South is the job of Joseph G. Cummings (top), station manager and chief announcer. Every Tuesday evening from 8:30 to 9:30 Central standard time, these talented artists of the Gebhardt Mexican Players may be heard over the San Antonio station. They are under the direction of the famous composer, Jose Conrado Tovar. At left is the Joske Story Lady, whose real name is a mystery so far as the station announcements are concerned. Below are the Mistletoe Melody Maids, whose charming folk songs thrill Jack and Pete of the old Fightin' Seventh.

Below is Mr. Otis Vaughan, assistant announcer at WOAI, San Antonio.



SURE-FIRE STUFF

by HARRY VAN DEMARK

WHEN a speeding automobile suddenly loomed out of the night and struck down one of the Dancing Shambaughs it left Sheila Shambaugh to carry on alone. She had to devise a new solo dancing act, earn money for a living for herself and Bobby and then make payments on Bobby's doctor bill.

Sheila was a proud girl and she shunned the sympathy of her fellow artists, but Johnny Clavering, the headliner with her bill, was different. She wouldn't tell him for the world although he really cared and was noted for his kindly deeds. Then Johnny discovered Jadwyn, the booking agent, coercing Sheila into an unfair contract.

"You must be getting something more than your regular commission for this girl's act?" insinuated Clavering with a pointed look square into the eyes of the scheming Jadwyn.

"WELL, I'm not saying that I am or that I'm not. But Barnes Jadwyn is no fool. Confidentially, I'm planning to put her in a musical tab.

Got a chance to get thirty weeks on the Panlow time. Then, if things shape up right, I'll bring it east and knock 'em dead." The booker shrugged a self-satisfied shoulder.

"By the way," said Johnny, as if struck by a sudden thought. "Ever hear from Mooney & Ray?"

Jadwyn's face clouded. He cleared his throat once or twice before he replied. "Er—no; not in over a year. You know, I won my case," he added rather lamely.

"Let's see—didn't they contend that you had held back fifty per cent of their salary or something like that?"

"Yes, but I proved they owed me money and the court threw out the case."

"Seems to be a little specialty of yours, Jadwyn, getting extras out of the acts you represent."

"Well, I've done a lot for some of 'em—and you know a man must live."

"There was another friend of mine you used to represent—Belle Winton. What became of her?"

"Say, what is this, Johnny—an inquisition?" Jadwyn eyed the headliner suspiciously, then smiled as he went on: "No; I haven't heard from Belle—not for a year and a half."

"She had you in court, too, didn't she?"

"Yes, but I won out."

"You tried to force your attentions on her—wasn't that what she claimed?"

"Er—well, yes, it amounted to that; but of course it wasn't true."

"How did you squirm out of that?"

"Had a witness. Proved she was trying to twist me around her finger so I'd get her salary raised."

ALL Is Not Glitter Behind the Footlights and Sheila Shambaugh Declines the Booking Agent's Proposition. Jadwyn Attempts Force and Meets Johnny's Iron Fist. Action and Thrills in This Story!

"And now you have a contract with Miss Shambaugh?"

"Certainly I have."

"Well, don't try any of your tricks on her."

"Oh, see here, Clavering, you think because you're a headliner, in good standing with the powers above, you can talk to me any way you please. But you fellows never get so far up that you can't come tumbling down. Remember that."

"Save your threats for some other time; but take this tip from me: Play straight with that little girl in No. 5, or the next time the judge is apt to tell you to think it over for a year or two."

Johnny passed on down the corridor, entered his dressing room and slammed the door.

THE next week the bill went into the Bijou, Brooklyn. Four acts dropped out, shifted by the vagaries of the booking office, leaving but five of the nine that had played the Palladium. Two new acts were penciled in by the bookers, giving the Bijou a seven-act bill.

Johnny and Sheila were among those retained.

The rehearsal was in full swing Monday morning when Johnny walked on the stage. A team of acrobats, a sister team, a girl act, a male dancing duo, and the Great Ganton, with Johnny and Sheila, rounded out a well-balanced bill.

They swarmed strenuously over the bare stage now, telling the stage manager how to hang their stuff, giving the electrician his light plots and the projectionist the cues for the "spots."

"Hello!" Johnny greeted cordially, as he saw Sheila leaning against the proscenium at one side of the stage.

"Morning, Mr. Clavering." She gave him a wan little smile.

"This isn't the Palladium; but perhaps we'll fare even better than we did last week," he said cheerily.

"I don't know. I—I seem to be losing my pep."

"Anything I can do?"

"Not unless you can tell me a way to raise a lot of money—and raise it quick."

"Do you need money?" queried Johnny bluntly.

"Of course. Ever know anyone who didn't? Oh, don't pay any attention to

me," she quickly added. "I'm only a poor atom, not worth one moment of your time." Her shoulders sank dejectedly while the great somber eyes filled with tears. She turned away toward a dark corner of the stage.

Johnny followed. "You know I'll be glad to help you."

"You can't help me. No one can. Please go away and leave me alone."

"I'm your friend—and I want to help. What is it you need money for?"

"NOT—not for myself. I—well, I didn't say I needed money for anything."

"You implied that you must have some at once."

"And what if I must?" she demanded in a contradictory tone. "We can't always have what we have to have, much less what we want. But I'll say this—you were right about Barnes Jadwyn. He's—he's just impossible—that's all!"

"Has he been bothering you?"

"He made me a proposition last week to head an act he expects to produce. Said he must have an answer by Tuesday night. But he got impatient—couldn't wait. So he came to my hotel yesterday, forced his way into my room and insisted that I accept his offer at once. Perhaps I acted unwisely, but I told him to leave and never come near me again."

"That was the greatest thing you ever did. And now, tell me—"

"You'll have to excuse me," she interrupted; "it's my turn to rehearse." She jerked a bundle of music from her portfolio, hurried down stage and thrust it into the orchestra leader's hands.

Perhaps it was just as well that way, Johnny reflected, with a sad little shake of the head. Surely, she would hesitate to accept aid from him—and then, there was friend husband to consider. Husbands had a way of taking unreasonable

attitudes when other men grew chummy with their wives. And if Sheila accepted a loan—well, it might be misunderstood.

He decided to forget the whole matter, and succeeded for a time. He saw no more of Sheila that day or evening; nor the next afternoon. Every time he came off she had dressed and left the theater.

But on Tuesday night he stopped amazed near Sheila's door as he recognized Jadwyn's voice.

"Yes, you told me not to come, but I came and I want a different answer from the one you gave me Sunday," Johnny heard him say.

"BUT I won't accept your terms; even though you were fair on the money end of it, the other things are impossible."

"Oh come, girlie, be reasonable!"

"If you come any nearer I'll scream!"

Johnny threw open the door and stood for a moment poised on the threshold. Sheila stood with her back to the wall, a small chair in her hands, held out as if to restrain Jadwyn from approaching her.

The agent turned at the sound of the door. He and Johnny measured each other a few seconds in silence. Then Johnny stepped closer. Jadwyn's face grew crimson with anger. Sheila wavered forward, dropped the chair and thrust herself between them. Jadwyn shrank back into a partial crouch.

Johnny thrust Sheila aside and sprang upon the agent. The two men crashed down against the make-up shelf. Johnny's twisting grip on Jadwyn's throat bulged the gray-green eyes, jerked down the weak jaw, mottled the sensual face. They swayed from the shelf, stumbled backward over the chair, and pitched to the floor, rolling over and over at Sheila's feet. The girl cringed, half-fainting, against the wall.

Johnny swayed slowly to his feet, dragging Jadwyn with him, then, releasing his clutch on the other's throat, sent him hurtling back to the floor where he lay groaning.

"When you're able to get up, get out of here, and see that you leave Miss Shambaugh alone in the future," he warned.

"I'll get you for this, Clavering," spluttered Jadwyn. "I've been on to

(Continued on page 28)

Johnny's twisting grip on Jadwyn's throat bulged the gray-green eyes, jerked down the weak jaw and mottled the sensual face. They swayed from the shelf, stumbled backward over the chair and pitched to the floor, rolling over and over at Sheila's feet. The girl cringed half fainting against the wall.



If It Doesn't Work—Then?

RADIO troubles, like the Ten Commandments, generally occur in series of ten, or so it seems. Nine times they will be of your own creation. As for the tenth, a pair of pliers, screw driver, hydrometer, a soldering iron and a voltmeter will be the only "life savers" required for restoration of Radio reception happiness.

A receiver is somewhat delicate and should be treated with consideration. Because it always has worked is no guarantee that it will continue to function without attention. Batteries need replacement, those which light the filaments of the tubes require periodical charging, and your antenna cannot be installed and then left to care for itself against the four winds of Heaven without expecting the day to arrive when all is silent.

Storage A batteries should only be tested with a hydrometer, while their specific gravity so measured should never be allowed to fall below 1.275. The plate or B batteries, for accuracy's sake, should only be tested when connected to the receiver, with the receiver in operation, or at the moment immediately after using. Waiting until a bank of B batteries have been at rest for a period before taking readings results is only fooling yourself. Never test B batteries with an ammeter. Ammeters are the finest little B battery killers one can use, while the readings which you may obtain are almost meaningless. Use a voltmeter and avoid the "one dollar" variety. B batteries whose voltmeter readings indicate voltages but 75 per cent of normal, should be discarded as they have served their useful life. Removing dust accumulations from the tops of B batteries should be a weekly practice, while the terminals of wet storage batteries should also be kept free from accumulations by cleaning them periodically with a cloth dampened in a baking soda solution.

General Instructions

Never remove a lighted tube from its socket. Turn off the battery supply. Then you may remove it in safety.

Do not use pliers or a screw driver to make repairs while either the A or B batteries are connected to the receiver.

When charging the A battery, the safe method is to entirely disconnect it from the receiver as well as from the B battery.

Always avoid forcing your tubes. Burning them beyond their rated voltage is an indication that you will soon be purchasing new ones. Pushing up the

*MAYBE YOU
Can Put Your
Receiver Back in Condi-
tion Yourself. Troubles
Are Often Slight. Here
Are Some Helpful
Hints. Try Them.*

By The TECHNICAL EDITOR

control rheostat may get that particular station but it will also "get" your tubes.

If you want to take a chance on paralyzing your tubes, the best way is to use your receiver during a lightning storm. If you don't want to take this risk, the program the following evening will be considerably better.

Do not wonder that your loud speaker goes "west" one fine day, if you persist in disconnecting it from the receiver while the tubes are lighted.

Because the vacuum tubes which you are using indicate an operating value of five volts, does not mean that you must operate them as high as this voltage, but it does mean that they should not be operated above this figure. Many a tube operates best somewhere between four and five volts.

Every six months take a peek above the roof. You HAD an antenna there which was clear of obstructions, had clean insulators and was in condition 100 per cent, but all these factors do not remain unchanged always.

Totally avoid exposing your adeptness at twisting rheostat controls. Once set, they require adjustment only when testing for defective contacts. He who attempts to tune in a station by adjusting his rheostats "knoweth not what it's all about."

The quickest way to locate a disturbing noise is first, to disconnect the aerial when, if the noise continues, you may then be certain that the trouble is local within the receiver or its battery connections.

Little Troubles and Easy Remedies

Paralyzed Tubes. Tubes which have become "paralyzed" because of too much B battery can usually be restored by disconnecting the B battery connections to the receiver and lighting the tube filaments for thirty minutes; or you may employ any one of many of the tube reactivators now offered by the dealers.

Fixed Condensers. A defective fixed condenser is usually beyond repair, considering the low cost of such devices. It should be replaced with a new one.

Variable Condensers. Dust accumulations between the plates of condensers may be cleaned readily with a pipe cleaner. These are procurable at any tobacco store. If plates touch one another when rotated they may be straightened by bending slightly with a case knife laid flatwise upon the plate. Most condensers of today have "take-up" adjustments which will correct this error. Poor connections in such a condenser are usually traced to grease in the bearings (if condenser is not "pig-tailed"), weak spring contacts, or poorly soldered connections.

Sockets. Weak or dirty socket contact springs in sockets are the source of most socket trouble. Tighten the retaining screws; clean springs carefully with fine sandpaper. If bent out of shape, straighten. A hair-pin is convenient for lifting the springs.

Burned Out Transformers. These cannot be repaired well. Replacement is the best policy. The repair usually would cost more than a replacement.

Loose Tube Prongs. Look out—they cannot be tightened readily, although at times a dab of glue will set the prong. If you are in the habit of cleaning the prongs of the tube, rubbing the points over a cloth will be sufficient. Never sandpaper them.

Moisture and Dust. Two-thirds of the grief connected with a Radio receiver is caused by dust within the receiver. Periodical cleaning should be given all receivers, whether they need cleaning or not, as quite often such a cleaning will bring to light a loose or faulty connection which needs repair. Keeping the receiver in a dry place is also good insurance against Radio's bugbear, moisture.

Common Questions and Their Answers

Will a six tube set receive twice as far as a three tube set? No.

If I get good results with a 50-foot aerial will I get twice as good results with a 100-foot aerial? No.

If I get good results using 22½ volts upon my detector tube, will I get twice as good results if I use 45 volts? No.

(Continued on page 30)

Ten Troubles—What They Mean

- 1 **Tubes do not light.** This may be caused by, a depleted or dead A battery, defective rheostat, dirty or poor socket contact springs, burned out tubes, broken wire going to the A battery or rheostat, or A battery connections wrong.
- 2 **Tubes light but there is no response in loud speaker.** Dead B battery, B battery connections reversed or wrong, poor contact at plate or grid prongs of a tube socket, broken phone or loud speaker cord, tube paralyzed because of using too much B or plate battery, or broken or faulty connections in audio frequency transformers.
- 3 **Signals good with detector, but faulty when using amplifier.** The A battery in poor condition, audio transformer reversed or burned out, poor spring contacts in amplifier sockets, polarity of A battery reversed, C battery reversed or disconnected, short circuit or moisture in fixed condenser across primary of the first audio frequency transformer, or defective jacks or tube.
- 4 **Signals on detector weak but good with amplifier.** Batteries run down, A battery reversed, defective tuner connections, too much or too little grid leak resistance, poor grid connection in socket, aerial or ground disconnected or making poor contact, aerial grounded or against obstruction which is collecting the energy, too much or not enough B battery on detector tube plates, damp coils, dirty variable condenser, or short-circuited lightning arrester.
- 5 **Signals clear in detector but distorted in amplifier.** Too little B battery on amplifier, too much B battery without proper C battery bias, broken wire in amplifying transformer, poor socket contact, transformers too close together, too many stages of transformer coupling, too high ratio of transformers, transformer connections reversed.
- 6 **Knocking, scraping, scratchy sounds when tuning.** Dust between plates of variable tuning condensers, too much B battery on the detector tube plate, too much wire in tickler coil if using a regenerative detector, too much A battery because of rheostats being turned too high, poor socket contacts, or insufficient grid leak.
- 7 **Trouble same as 6, but which is not caused by tuning.** Poor connection to aerial or ground, aerial swinging or rubbing against some object, loose loop aerial connections, loose tube contacts, dirty tuning condenser plates, defective detector circuit jack, tubes burned too bright, not enough grid leak.
- 8 **Howls, hisses, effected by tuning.** Too much B battery, tickler advanced too far, tubes too bright, incorrect value grid leak, broken wire in tickler coil, poor ground or aerial connection, or dirty condenser plates.
- 9 **Same as 8 but not effected by tuning.** Too much filament current, too much detector B battery, short circuit in grid condenser, improper grid leak, poor socket spring contacts, transformers too close together or of too high a step-up ratio, too many stages of audio amplification.
- 10 **Wavering signals.** Leakage in aerial due to swinging or contact with some object, sooty, dirty insulators, loose bearings in condensers, poorly soldered wiring contacts, or possibly a "friend" blooping.

Sir Oliver's New N Circuit

LODGE, Eminent British Scientist and Inventor of Tuning, Now Brings to Light His Latest Discovery Which Practically Does Away with Tuned Aerial, "Blooping," and Will Aid Selectivity.

By MILO GURNEY

THERE is an old adage which goes—"If you want to know how fast this old world of ours is moving, try buying yesterday's newspaper." To which we might add: "If you want to know how fast Radio is moving, tell us who invented electrical tuning?" All of which is but a prelude to the announcement that the same authority who invented tuning is the inventor of the new N circuit which is creating such a furor in England—Sir Oliver Lodge.

Because of his prominence as a physicist and Radio authority, it is assured that the development of this circuit will be watched with much interest in this country.

In effect, the discovery includes a combination of inductances and ca-

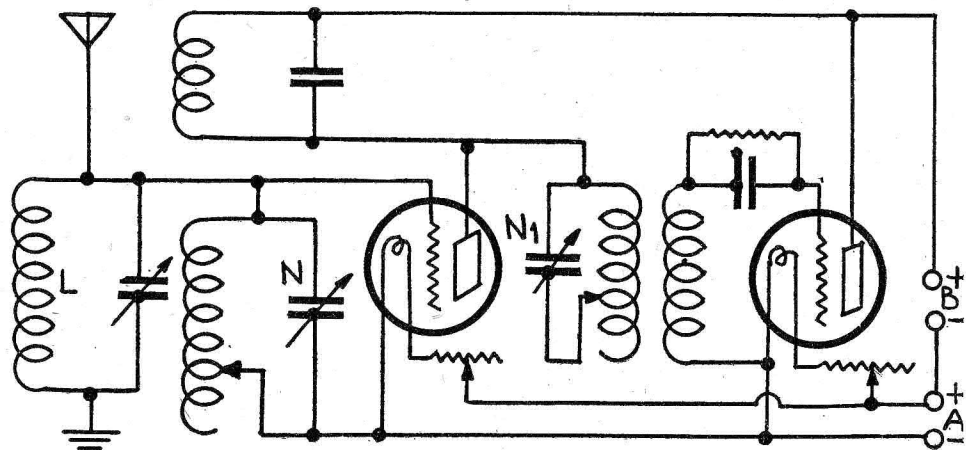


Figure 1. Sir Oliver Lodge's N circuit as applied to a tuned plate radio frequency amplifier and detector combination.

capacity terminals, as well as a varying potential everywhere (except possibly at the earth connection). It is these side potentials which, if tapped off, are sufficient to stimulate a responsive tuned circuit into oscillation. The potential oscillations of definite frequency built up in the N circuit are then transferred to the grid of an amplifying tube. In this manner selectivity is secured and with a desirable lack of distortion.

Figure 1 indicates the N circuit as applied to a tuned plate amplifier and detector combination. It will be noted that there is only a one point connection from the antenna to the N circuit, and that the latter is connected across the grid and filament input to the tube. A similar circuit (N1) is shown as

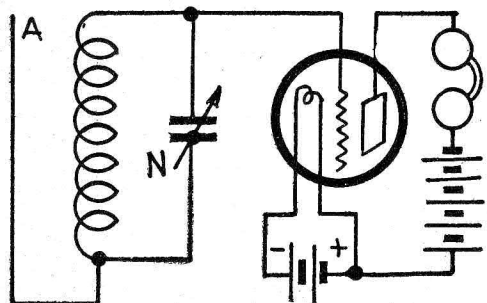


Figure 2. Here the aerial is employed only as an untuned collector for the tuned loop N.

pacities so arranged as to entirely prevent "blooping" while of even greater interest is the claim that the use of the circuit will materially add to the selectivity of one's receiver.

Data which would aid the builder in arranging the circuit have not been released. However, the principle involved and several applications of it have been secured by Radio Digest for its readers. These circuits are presented here in figures 1, 2, 3 and 4.

In order to understand the principle underlying the discovery, a rehearsal of the average conditions found in many circuits now employed in this country appears as important.

Where Present Receivers Fail

Our standard types of vacuum tube receivers fall below modern requirements in two important particulars. First, their efficiency as regards range is largely offset by their failure to secure a high standard of selectivity. Obviously, getting distant stations means little if one is to be troubled with excessive interference from stations which overlap. Second, the use of regeneration by careless hands in tuning often converts the receiver into a transmitter, making the night miserable for all.

It is only natural, therefore, that the broadcast listener should be much interested in any development which promises to affect an improvement in both of these directions. This is particularly true when such a discovery is sponsored by so eminent an authority as Sir Oliver Lodge.

In the early days of wireless, Sir Oliver was the first to discover the principle of electrical tuning, thus making it possible to radiate signals on a definite wave length. It was this discovery that laid the foundation for selectivity by enabling a receiver to be tuned so as to separate signals with varying wave lengths. In this latest contribution to Radio reception a remedy is provided for that particular abuse of tuning known as "condenser swinging."

While there are several methods now coming onto the market for balancing of a set so that it cannot energize an aerial, the Lodge method or N circuit, attacks the problem in characteristic fashion. In describing his invention, Sir Oliver lays particular stress upon the fact that it is intended primarily to prevent any kind of local disturbance. By this is not

Why Bloop Now?

THE "blooping" evil has just about subsided. At least it isn't what it was at the time of the last transatlantic tests. This is because, first, the public has been educated to "go easy" with its radiating sets, and replace them when it is utterly impossible to operate them without blooming.

Then, secondly, the manufacturers have improved the designs of their receivers to get away from radiation. It is now possible to purchase a score of different makes of receivers that are absolutely non-radiating.

In other words, the "blooper" has gone out of style. His irate neighbors have helped to bring about the new order.

Now Sir Oliver Lodge, a trifle late we fear, has a new non-radiating circuit. It won't revolutionize the Radio industry. It isn't necessarily an improvement over 1925 or 1926 model receivers of the better manufacturers, but here it is—its good points enumerated—for you to look over.

—THE EDITOR.

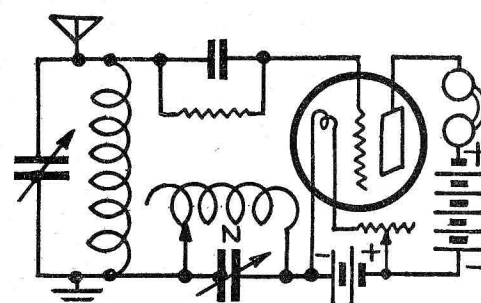


Figure 3. On first glance one might assume that this is a rejector circuit, but it isn't.

coupling the radio frequency to the detector tube. The single point connection between the antenna and the N circuit appears to be sufficient to energize the latter and thus build up oscillations of considerable amplitude by resonance.

Such oscillations are then applied across the grid and filament of the first tube and offer amplified plate currents in the ordinary manner.

Both magnetic and electrostatic coupling must be eliminated between the secondary and the N circuits, otherwise the main object of this novel arrangement is lost. It is likewise essential that the aerial and plate circuits should be isolated. By this we mean that all high frequency currents must be by-passed from flowing in the plate circuit.

Why Circuit Cannot "Bloop"

In operation the circuit provides a one way coupling between the aerial and the grid of the tube. As the N circuit is actuated by voltage rather than current, the energy transfer is small, although such voltages as are built up in the loop circuit N are such as to produce a pronounced effect in the plate circuit. Bear in mind that a vacuum tube is essentially a voltage operated device rather than a current operated one.

Because of the high resistance existing between the grid and filament of a tube, there is practically no diversion of this energy in the N circuit and as a consequence no damping effect.

In figure 2 is pictured the aerial as untuned and serves merely as a collector for the tuned loop N. Figure 3 is interesting, for at first glance, those who are familiar with the rejector, or so-called wave trap circuits will confuse their arrangement and assume that figure 3 is such a circuit. However, it is pointed out that such is not the case as rejector circuits are tuned to the wave length which one desires to eliminate.

Figure 4 shows a circuit developed by M. M. Melinsky, who is associated with Sir Oliver. This includes a novelty of application typical of this gentleman's versatility. In addition to utilizing a resonant coupling of the N type, it will be noticed that the output plate circuit is grounded. In addition the supply batteries are left "floating."

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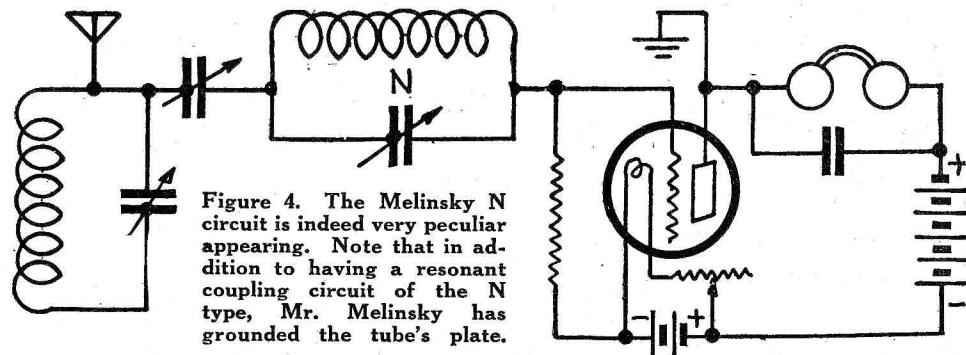


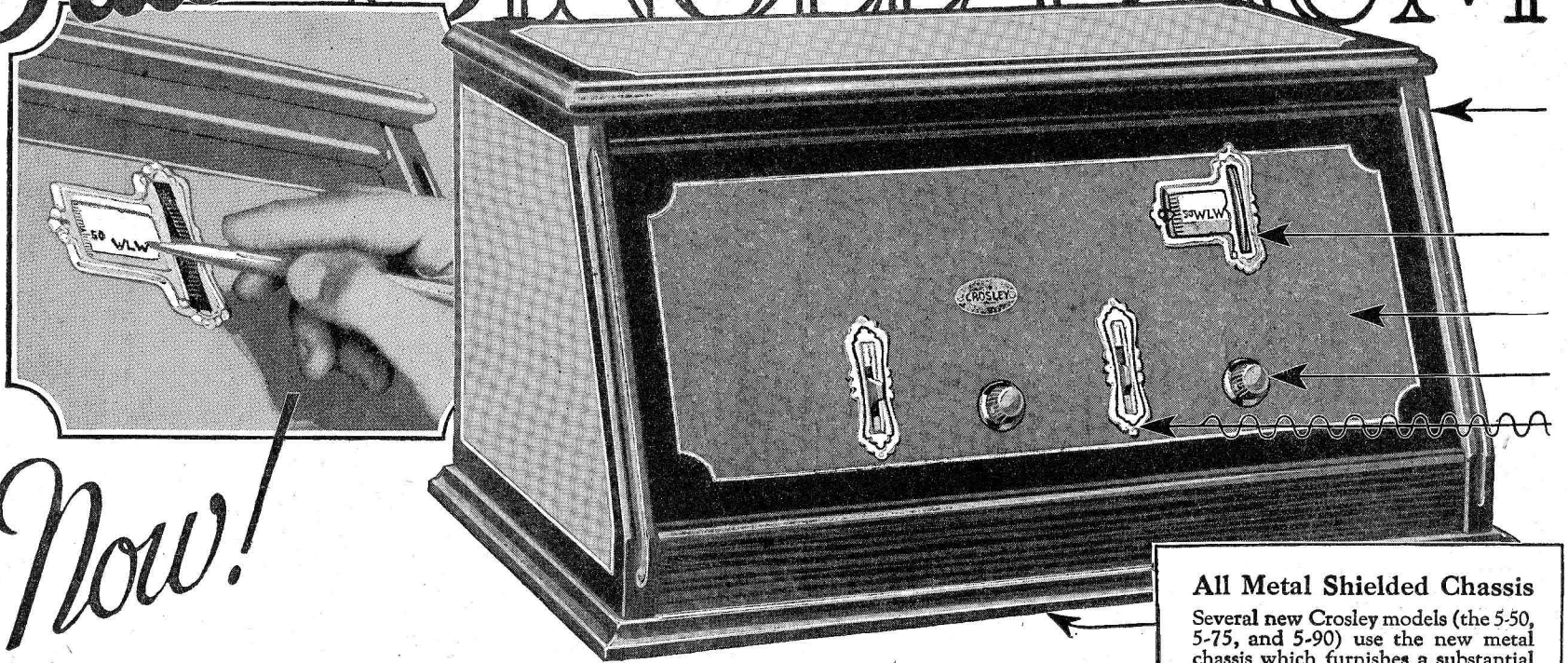
Figure 4. The Melinsky N circuit is indeed very peculiar appearing. Note that in addition to having a resonant coupling circuit of the N type, Mr. Melinsky has grounded the tube's plate.

meant that excessive static, leaky power line noises, etc., are eliminated, but that no matter how unskilled the operator may be, or how carelessly the tuning controls are handled, the action of the N circuit prevents any radiation from the receiving aerial to which the set is connected. Of added interest is the statement that the circuit acts as a filter, operating solely by resonance, and on that account it should increase the selectivity of the receiver as a whole.

Taps Off Side Potentials

In any open oscillating medium, such as an aerial, there are obviously alternating end potentials at its ca-

5 tube SINGLE DRUM



Now!

Single Control and Selectivity

Amazement and delight will seize upon you the instant you contrast the surpassing performance of this new type of Crosley Radio with what has hitherto been considered radio perfection.

And you may well stand dumbfounded to find 5 tubes with single control embodied in its Drum Station Selector, the sharp tuning feature of its Acuminators, its adaptability to power output tube, and its beautiful appearance . . . in a radio set for \$50!

Crosley mass production reaches its highest peak in giving the world this incomparable value. So magnificent are the radio engineering achievements in this new model that the price is positively astonishing.

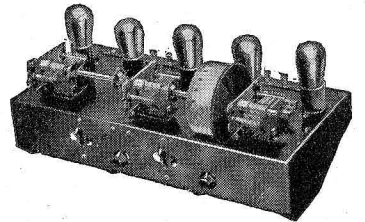
The cabinet is solid mahogany, beautifully finished in two-tone and striped in gold. Metal fittings are rose gold finish.

Never before such an astounding Crosley value. See it—hear it—operate it yourself—at any Crosley dealer's . . . now.

All Metal Shielded Chassis

Several new Crosley models (the 5-50, 5-75, and 5-90) use the new metal chassis which furnishes a substantial frame for mounting the elements. This effects excellent alignment of the gang of condensers, as well as affording a mounting for a rheostat, acuminators, crescendon, coils, sockets, transformers and insulation terminal strip.

This metal shielded chassis is divided into three compartments. Thus the units shielded from each other prevent



interstage as well as external coupling. This improves the stability of the circuit and increases the selectivity as well. The metal shielded chassis is indeed a most progressive step in advanced radio design. This feature has never been offered before in sets of moderate price.

The Musicones—



The announcement of the new Super-Musicone is predicated on the success of the Regular (12 inch cone) Crosley Musicone in replacing hundreds of thousands of old type loudspeakers. (Keep in mind that it's the exclusive Crosley patented actuating unit and not the cone that makes possible its wonderful performance). 12 inch Musicone Regular now \$12.50.

The Crosley Super-Musicone (16 inch cone) is considered by some to develop more resonance in bass reproduction and is naturally louder than its 12 inch counterpart. Beautifully decorated both in front and on the back. Price \$14.75.

The MUSICONSOLE into which the Musicone has been skillfully built, holds all batteries, wires and accessories. Two-toned mahogany finish. 24½ inches long inside. Price \$32.

Crosley Musicones are manufactured under basic patents issued and pending, controlled by Crosley. Prices slightly higher West of the Rockies. For descriptive catalog write Dept.

THE CROSLY RADIO CORPORATION, Cincinnati
Owning and operating WLW first remote control super-power broadcasting station in America.

Crosley manufactures radio receiving sets which are licensed under Armstrong U. S. Patent No. 1,113,149 or under patent applications of Radio Frequency Laboratories, Inc., and other patents issued and pending.

CROSLY

[STATION SELECTOR] RADIO RECEIVER

SOLID MAHOGANY CABINET

Graphic Station Selector

All stations found instantly on this one single control. It revolves smoothly under slight pressure. Once stations are found, they are easily written on the drum. No log book to fuss with. Stations from one end of the wave band to the other are easily brought in at all times—**IN THE SAME PLACE.** This advanced improvement in station finding has heretofore been found only in the highest priced radios.

\$50.



POWER TUBE ADAPTABILITY

Crescendon Control

This exclusive Crosley feature supplies very unusual volume from distant stations. In cases where on ordinary radios ears must strain to catch the station many leagues away, the turn of the Crescendon on a Crosley swells the reception to room-filling volume. This Crosley feature has already given great satisfaction in the 4-29 and 5-38 models brought out early this year.

Acuminators

(From "acuminate", meaning "to sharpen") Heretofore single dial control sacrificed selectivity. It was practically impossible for sets located near broadcasting stations to tune them out and bring in distant stations. By means of these Acuminators, very sharp tuning is accomplished where the reception from stations spreads broadly over the dial. Under average conditions, when once adjusted, these acuminators do not have to be touched again.

5-TUBE SINGLE CONTROL RADIO
Priced without accessories

Crosley 1927 radio achievements fit all purses

At \$9.75

The little double-circuit single-tube "Pup" has already brought happiness to thousands. If the thousands of reports sent to Crosley last winter are any indication, probably the greatest distances over which laymen have ever heard radio signals have been with this set.

At \$29

The 4-29—a 4-tube receiver of amazing efficiency. Such radio performance has never before been possible at such a low price. Brought out early this season it quickly proved its right to a permanent position in the Crosley line. Crescendon equipped!

At \$38

The 5-38—this 5-tube tuned radio frequency set incorporates two stages of non-oscillating radio frequency amplification, regenerative Crescendon controlled detector and two stages of audio frequency amplification. Sales and performance since its introduction mark the 5-38 as a spectacularly popular model and one of Crosley's most startling values.

At \$65

The RFL-75—true cascade amplification; non-oscillating—non-radiating, regardless of how it may be mishandled. This perfect balancing is achieved by introducing the Wheatstone bridge into each stage of amplification—a clever engineering feature instantly recognized by radio technicians—and appreciated by the layman because of the selectivity and tone this set affords.

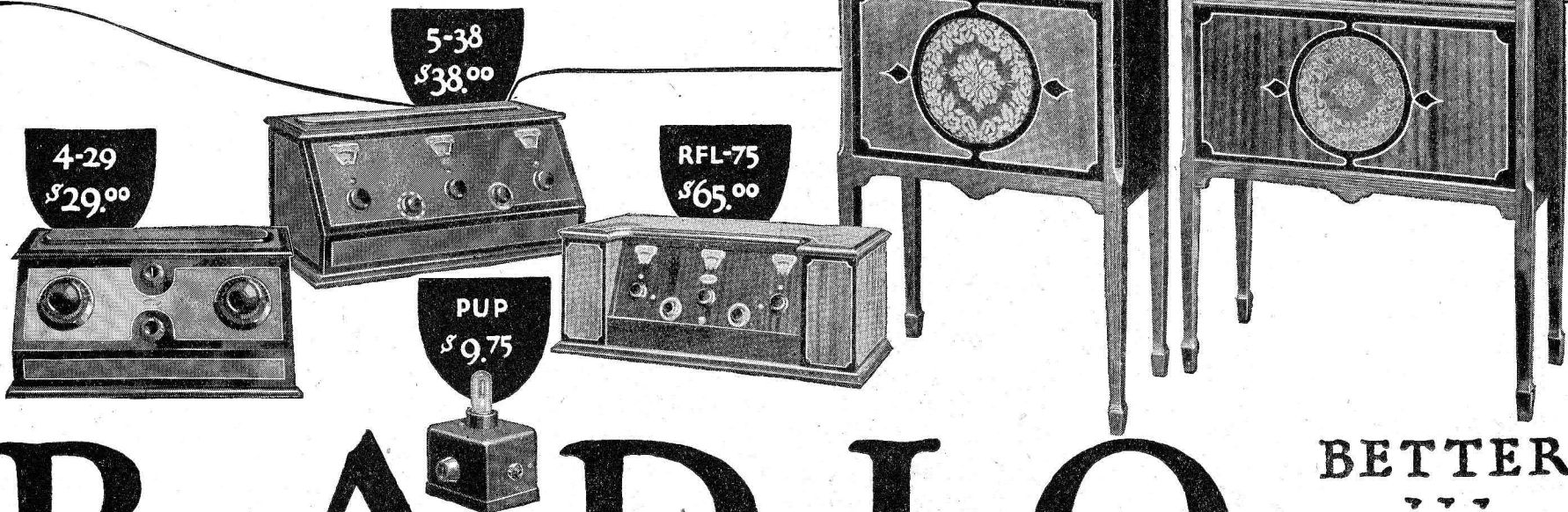
At \$75

The 5-75—Crosley's new console radio—embodying the 5-tube single control with drum station selector as offered in a table model at \$50. SOLID MAHOGANY cabinet into which is built the Crosley Musicone. Ample compartment for batteries. Stands 41 inches high. Beautifully finished in two tones.

At \$90

The RFL-90—the console model of the \$65 RFL circuit, introducing the double drum station selector! This is a fine radio engineering achievement offered in a beautiful housing of solid mahogany, finished and decorated so exquisitely as to grace the finest surroundings. MUSICONE built in—ample room for batteries and all accessories, 41 inches high, 30 1/2 inches wide.

Prices slightly higher West of the Rockies. For descriptive catalog write Dept.



RADIO

**BETTER
COSTS
LESS**

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Vol. XVIII

July 15, 1926

No. 1

Acknowledging Applause

OUR recent editorial, "Two Cents for a Program," has aroused much comment. Broadcasting stations have universally endorsed it. Listeners, as a whole, have condemned it. The broadcasters are not satisfied with the present mail-reaction or postal-applause. The public is satisfied that it is doing entirely too much applauding because stations do not take the trouble of acknowledging even by form letter or post card.

The trouble is with the invisible audience. They should not expect personal replies or even form post card replies to their letters or cards of applause. The expense to a station of attempting to answer the daily mail from listeners, especially if that volume of mail were as great as it should be, would be terrific and entirely prohibitive.

Listeners should not expect to receive answers to their letters to the stations. If the station studies its applause and directs its programs to meet the changing trend in the desires of its listeners, that is sufficient. If that station should, say once a year, mail a general picture post card of its studio and equipment or the like to the ten thousand or one hundred thousand listeners who have corresponded during the year, then those listeners should be highly elated and honored that the station should go to the expense of several thousand dollars just to send them tokens of favor.

When we go to the theater, to a recital or to vaudeville, we applaud what pleases us. The degree of our applause indicates the depth of our appreciation. Yet, although all we receive in return is a bow or curtsy, we feel amply repaid. The real reason for the applause is for an encore. If that is granted, we are paid in full for our applause. The artist, actor or performer does not call our names from the stage and thank us individually.

So it is with the broadcasting stations. They will endeavor to improve and repeat along the lines of the programs most favored by applause from the invisible audience. And such acknowledgment of our post cards and letters is indeed enough.

A Great Problem Solved

ALTHOUGH there are some twenty-five Radio stations in the Chicago district and cutthroat competition would be the natural thing, the "Windy City" station owners showed that the best interests of the industry as a whole come first and individual gain second by their recent successful cooperative broadcasting of the major events of the great Eucharistic Congress. Credit for this large undertaking should go to the member stations of the Chicago Broadcasters association, under whose direction the feat was accomplished.

Of all the stations in Chicago, only ten are members of the association, but these ten cover the broadcast band from 21 meters up to 536 meters. The stations included in the group are: WOK, 217 meters; WBCN and WENR, 266 meters; WGN, 303 meters; WLS, 345 meters; WEBH and WJJD, 370 meters; WMAQ and WQJ, 448 meters, and KYW, 536 meters. Of this group, WBCN, WGN, WEBH, WMAQ and KYW took active part in the broadcasting of the congress features, WJJD not participating on account of being unable to use A. T. & T. lines from Chicago to Mooseheart and WQJ giving its time to WMAQ.

Mechanically the broadcast was made possible through the use of the central board at the WLS Hotel Sherman studio into which seventy-six pairs of telephone lines are routed permanently by the Illinois Bell Telephone company. All events were picked up by a trunk line installed between WLS and the pickup point and then routed through the board to the various stations broadcasting the feature.

It is hoped that the Chicago Broadcasters association will combine to handle other events of national importance originating in their city. Other cities top-heavy with stations could do well in following the lead of Chicago. Local stations not members of the C. B. A. should take a hint and get on the band wagon if the better interests of Radio listeners are to be served.

RADIO INDI-GEST

A Radio Husband

Monday

Wife: "Pa, let's go to the theater, You never go to a show."

Hubby: "We live in a different age, dear, I go on my Radio."

Tuesday

Wife: "Mrs. Jones has asked us to play bridge, I'd certainly like to go."

Hubby: "Oh! what's the use it bores me so, I play on my Radio."

Wednesday

Wife: "I've tickets for the opera, dear."

Hubby: "Well, you'll have to go alone. I'd ten times rather stay right here And hear through my telephone."

Thursday

Wife: "Tonight you must work in the garden, For grass seed you have to sow."

Hubby: "Oh! let George do it, I'm so tired; I must work my Radio."

Friday

Wife: "I have a BIG surprise for you, I've opened our piano. I want to sing the old sweet songs You liked so long ago."

Saturday and Sunday

Hubby: "Well! if you are not the limit! You are so selfish; you know The only thing in the world I like Are tunes in my Radio."

RHEA SHELDON

Painless Dentistry in Alaska

Fairice, Alaska.

Editor Indi-gest: There has been a agent hear in fairice celling Radio sets to the natives. He cels a nine Toob calld the Sooper Phoney Dine and it would kill you to lisstn over it. They is several attachments to do house work and little odd jobs. They is one dile you tern to make it sead cherries and another you tern makes it polish false teeth. The wires must have been twisted for a neybor tuck his teeth out and putt them in the slot to be polished and when he twisted the dile to make it polish it pulled three teeth out of his plait before he could get it terned off. The cherrie seader wire must been onto the dile where it said to polish teeth. It was a good joak. Always as ever,

KITTLE DRUMMER

The Indi-Gest "Colyum"

Here's to the "Colyum" of Indi-Gest,
The column of comment, and poems, and jest,
Whose editor hears from many a pest
With a load he has just removed from his chest.

Contributions come in from the East and the West,
Some in good language versed, and some badly messed.
Some writers the editor ranks with the blest,
While others he'd like to place under arrest.

If your stuff is all right and passes the test
He will give it a place along with the best;
But if it is bum, or old stuff newly dressed
It will go in the basket beside Indi's desk.

GEORGE

Ole's Radio By Cliff Tamm

Getzem All Radio Co.,
Yentlemen:

Two tree veeks ago Ay buy vun das har radeo sets you tal about in das radeo journals. Ay read das little book what you send wid das set and ay do just lak you say but das radeo he don't vork so goot, all ay can get is das Chicago stock yards ven dey iss killin das pigs. O yes vun time ay find a cat fite.

Das battery you send for das set bane in rain storm, he vas full of vater when ay get him, so ay dump it out on the ground and my chickens come to drink and ten of them aint any more.

You say in das book to turn set on till it osilate. Ay ask my friend in das hotel what means it osilate and he show me a lectric fan what goes back and fourth and he says das is osilate but das set he stands still like a dummy.

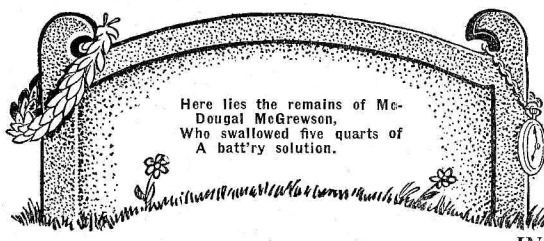
Ay dont know much about radeo but ay tank you make monkey shine wit me. Ay hope you are das same.
OLE HANSON

Intermission Idiosyncrasies

A. C. S. Announcing

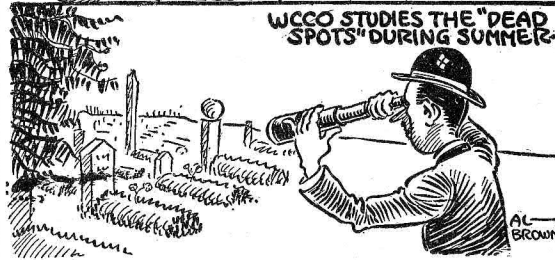
"At 8:15, Anson Dudley Jones, an ex-president of the I. W. W. Welfare association will favor us with a short recitation entitled, 'The Light That Failed'. For your information we wish to state that this selection has nothing whatsoever to do with Rudyard Kipling's masterpiece. The nag Anson Dudley will rave about tonight only carried ninety-two pounds and blew the foundation out from under Anson Dudley's bank roll."

ARTHUR C. STOWELL



INDI

Current Events



Condensed

BY DIELECTRIC

If the early part of this summer had been sultry and as "static" as usual to the time of the year, you would have had a grouchy reviewer to contend with. As it is, the very first mention to be made of any programs refers to one of several heard from Station WHO, Des Moines. You readily see how the cool breezes encourage generous emotions for the subject under discussion is sopranos—or, more particularly, a coloratura soprano, and I have but the most favorable comment to make. Her selections, in part, were similar in range and composition to the Bell Song in Lakme, which is rather a difficult selection to render, and I wish to say that not only was this singer's intonation excellent but her tones throughout were well-rounded and of quality.

Station KDKA, the world's pioneer broadcaster, should provide any of you with the style of program appealing to your tastes, for I find the director of their studio has no pet feature which he rides to death, nor a superabundance of mediocre talent. Most all stations this time of year pay more attention to the lighter forms of entertainment and, undoubtedly, at your request. However, you may find classical features and lectures by looking through the columns of Radio Digest, as these are included on the programs of some stations every month of the year. From Pittsburgh's best known station you will always find variety numbers—both instrumental and vocal.

An outstanding event in Radio broadcasting during the past few weeks was the miking of the reception to Lieutenant Commander Byrd, through Station WOR, Newark, N. J., that modest explorer returned to the city from which his expedition started. New Yorkers were heard to give these courageous polar flyers a rousing welcome with bands playing, sirens shrilling, cheers and handclapping, both on the streets and in the city hall; then the addresses of praise, followed by Commander Byrd's disclaiming the honors heaped upon him. In a second of time we were a part of the chamber of commerce party awaiting his arrival there and listening to the encouraging reports of the progress of his party from the city hall.

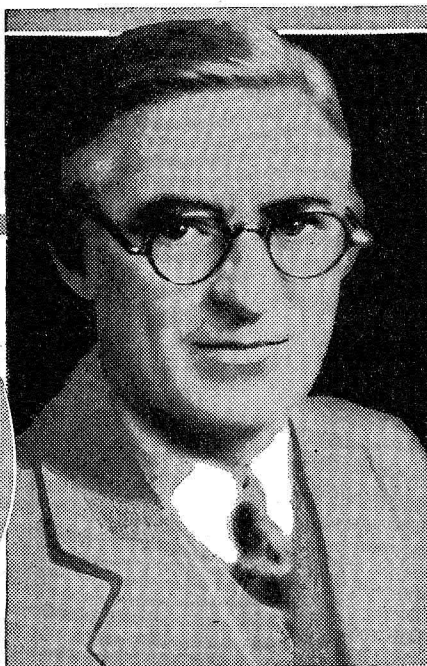
Another very pleasing entertainment was provided in one of the programs broadcast by Station WLW, Cincinnati. The Hotel Garfield Imperial Serenaders were responsible for this treat. They really are a very lively aggregation of musicians and keep one from twisting the dials to a new setting.

Station WHT, Chicago, is one of the many offering seasonal inducements to secure your attention, which, if given, will not result in disappointment. After listening to a wealth of amusement from the Wrigely studio, I decided the crown should rest upon the brow of a young lady with an intriguing voice who sang popular songs in that I'm-singing-to-you style, which calls for a clean shave and collar right away before she notices. Other features were good—but forgotten.

It is impossible to make mention of all the programs any station puts on the air during the periods between issues of this magazine, so you will find what we shall choose to call "excerpts" of the broadcasts. There's that station in Cincinnati with which we are all familiar and most of us enamored—WSAI. With plenty to choose from and lots to harp on, both sweetly and acridly, instead your attention is recalled to but one selection in a group of songs rendered by a baritone, the possessor of a very good voice for lyric singing. The Kashmiri song has been heard often over the Radio but never to better advantage.

POPULAR PACIFIC COAST ANNOUNCERS

At right, "Uncle" John Daggett, director and announcer of KHJ, Los Angeles, is one of the West's most popular voices. In the Northwest it is "Dick" R. V. Haller, below, of Station KGW, Portland, Ore.



At left, Charlie Wellman, announcer at KFVB, has a large following. Below is the much adored Harold Isbell, now of KNK, recently at KYW, Chicago, and before that at the mike of KFI, Los Angeles.



LOS ANGELES READY FOR BIG EXPOSITION

FOURTH NATIONAL SHOW IS SET FOR SEPT. 5 TO 11

Waldo T. Tupper Again Director General—Ambassador Auditorium Place—Prepare for Large Crowds

LOS ANGELES.—Radio dealers and broadcasters are working in unison in Los Angeles in preparation of the Fourth annual National Radio exposition which will be held in this city from September 5 to 11.

The show, which is expected to exceed in quality and interest the Radio exposition staged in Los Angeles last year, is predicted by members of the city's Radio Trades associations as being in all likelihood the equal of any Radio exposition held in the United States this year.

Waldo T. Tupper is again director general, and J. E. Hartley, president of the Los Angeles Radio Trades association, is working with him and a general exposition committee in perfecting the plans.

Ambassador Auditorium Selected

Dealers, manufacturers and manufacturers' agents are joining in plans for the exposition. They have agreed on giving willingly of their time in making the exposition as a whole, as well as their individual exhibits reflect the great growth which Radio has enjoyed in the last few years in Southern California.

Ambassador auditorium, on the grounds of the Ambassador hotel, which harbored the exposition for the last two years, again has been chosen for the locale. It is being redecorated to a considerable extent for the occasion, and to make room for all the exhibits demanded this year, the building is undergoing alterations.

The Southern California coterie of broadcast fans already is showing keen interest in the coming event. Due to the great number of homes and bungalows in California, Radio long has been a popular pastime with stay-at-homes.

Prepare to Entertain Crowd

Preparations are being made in Los Angeles for entertaining a vast crowd of Radio enthusiasts expected to attend from out of city points. As was the rule last year, it is planned to make the effect of the show permeate every quarter of the city and surrounding areas, even penetrating to adjacent states. Hundreds last year visited the show from Arizona and New Mexico points, and hotels in Los Angeles are already receiving inquiries from prospective guests.

Recognizing the value of the Los Angeles exposition, numerous eastern manufacturers have obtained space, according to Mr. Tupper.

Coney Island Fights on WHN

NEW YORK.—When fans tune in WHN programs on Friday nights for the rest of the summer they will be able to get the results of every boxing event going on at Coney Island stadium. George Utassey will be at the "mike" to tell about the matches.

ANGELUS TEMPLE REJOICES RETURN

Mourning Changes to Joy as the Escape of Aimee McPherson Is Celebrated

LOS ANGELES.—Reported by the press of the country and given up by her relatives as among the missing dead, Aimee Semple McPherson has returned to her flock at the Angelus temple and its broadcasting station, KPFG, little worse for the kidnaping adventure inflicted upon her except for the shock.

Following her discovery and identification in a hospital at Douglas, Ariz., she told a remarkable story of abduction and ransom and how she had been held a prisoner for six weeks in a shack on the Mexican side of the border near Sonora, while posses searched for traces of her, the ocean was dragged for her body, and her followers mourned.

Her captors were holding Mrs. McPherson for \$500,000 ransom, she said, but she would not assist them in their efforts to collect. In an unguarded moment one day she escaped and ran toward the border until exhausted. An American found her and brought her to the hospital at Douglas.

Highest Towers in City of Los Angeles Are at KMTR

HOLLYWOOD, Calif.—July 1 marked the opening of KMTR's new studio on the top floor of the Terminal building, Hollywood's newest skyscraper and the most beautiful industrial building in the Los Angeles metropolitan district.

Two graceful steel towers adorn the top of the building, and, as it was constructed with the idea in mind, the Radio towers give a finishing touch to the artistic whole. The building, with the towers, comprise the highest building in Los Angeles, and KMTR's towers form a landmark that can be seen for miles around. "Hollywood's Distinctive Station," KMTR, was recently purchased by the Echophone Manufacturing company from the K. M. Turner Radio company. The Echophone company formerly operated Station KFON at Long Beach, Calif.

WAIU, Columbus, Moves From City and Adds Power

COLUMBUS, O.—Before the end of July Station WAIU, owned and operated by the American Insurance Union, will have moved its transmitter outside the Columbus city limits and assumed a new power rating of 750 watts.

The new transmitter will be located in a plot set aside for it on the grounds of the Elks Country club, more than ten miles from the center of Columbus. All equipment will be new, including steel masts, bungalow-type power house and the broadcaster comprised of General Electric parts. Storage batteries will supply the power.

The exodus to the country club was scheduled tentatively to be completed by July 17.

WEAF Releases Dance Schedule for Summer

Six Orchestras Will Supply Eight Hours of Music Weekly

NEW YORK.—Realizing that the summer months bring with them the desire on the part of many of the younger listeners to dance, WEAJ has arranged its schedule of dance music to provide ample syncopation by well-known orchestras at convenient times. The weekly time table, which shows a total of eight hours of music by six different orchestras, is given in Eastern daylight saving time and follows:

Monday evenings: 8:00-8:30, music from Park Lane Restaurant; 11:00-12:00, music by B. A. Rolfe's Palais d'Or orchestra.

Tuesday evenings: 10:30-11:30, orchestras in this list alternate weekly; 11:30-12:00, the Buffalodians from the Monte Carlo.

Wednesday evenings: 11:00-12:00, Pelham Heath Inn orchestra from Pelham Heath Inn, New York city.

Thursday evenings: 7:30-8:00, dance music from Park Lane Restaurant; 11:00-12:00, the Buffalodians from the Monte Carlo.

Friday evenings: 10:30-11:00, Jack Albin's orchestra from Marine Roof of Hotel Bossert; 11:00-12:00, Pelham Heath Inn orchestra from Pelham Heath Inn, New York city.

Saturday evenings: 10:00-11:00, Ben Bernie's orchestra from Hotel Roosevelt.

World's Largest Studios at Playing Card Station WSAI

CINCINNATI, O.—When WSAI celebrated its third anniversary recently with a nineteen hour continuous program, at the same time new and enlarged studios were christened by the United States Playing Card company's station.

WSAI's new plant includes an immense reception room, as large as the average hotel lobby, three artist studios, an ensemble studio capable of seating 100 musicians, a solo studio and a rehearsal studio. All these studios are connected by a common announcer's booth, where the director may handle programs from any studio. Adjoining this layout are the control operator's room, the artists' lounge and the director's office.

The new studios are believed to be the largest and most completely equipped in the world.

Governorship Aspirants on Air with Speeches at WCCO

MINNEAPOLIS.—Candidates for the governorship of Minnesota recently utilized Radio to present to the voters of the state their arguments for election. It was the first non-partisan Radio political rally ever held in the state, arranged by the League of Women Voters, and broadcast by WCCO, the Gold Medal station.

The candidates were Magnus Johnson and Tom Davis, Farm-Labor candidates, and Governor Theodore Christianson of Minnesota and George E. Leach, Republican candidates. They each spoke in alphabetical order for fifteen minutes.

SAN FRANCISCO WILL SHOW SET PROGRESS

EXPOSITION ON AUG. 21 TO 28 ANNOUNCES PLANS

Cooperative Merchandising Plan to Be Shown Dealers—100,000 Visitors Expected to Attend

SAN FRANCISCO.—Whether it is possible to make each major Radio exposition show as marked an advance in Radio engineering as the exposition previous will be one of the tests afforded the Pacific Radio exposition to be held in San Francisco, August 21 to 28, this summer.

Already the pennants of the new show are being flung to the breeze. The arrangements have been placed in the hands of a professional showman who has organized an efficient staff of experts to insure that San Francisco will maintain its standards of past years as an exposition city.

Anthony A. Tremp is the genius selected to bear the big individual responsibility and his past experiences are said to have made him the logical candidate for the job. He has been named the managing director.

Develop Cooperative Merchandising

One of the first operations of the committee staff was to develop a plan for cooperative merchandising within the industry. The objectives to this end have been established on the following basis:

To bring about closer acquaintanceship between manufacturers, their agents, distributors and dealers that they may know each other better and have a fuller understanding of the problems of each other.

To provide an opportunity for dealers and jobbers to meet factory representatives and discuss the sales angles on the various products in which they are interested and which they are taking on for the coming season.

All Dealers Asked to Attend

In furtherance of this plan the exposition committee through the Pacific Radio Trade association intends to provide season passes for every Radio dealer in northern California, Nevada, Utah, Southern Oregon and other surrounding territories.

It is estimated that 75,000 to 100,000 visitors will be attending the exposition. The Society of Radio Pioneers is planning to outdo the past success of its Midnight Frolic by staging it on a larger scale.

Chicago Stations Pick Up Legalized Illinois Fights

CHICAGO.—Boxing and Radio were associated recently when the first championship bout was staged since legalized fighting came back to Illinois. The preliminaries as well as the main bout between Rocky Kansas of Buffalo, lightweight champion of the world versus Sammy Mandell of Rockford, Illinois, the challenger, were broadcast by Stations KYW, WJJD, and WLS, and Stations WMAQ and WGN who came in on the main bout.

AN EVENING AT HOME WITH THE LISTENER IN IN EASTERN (OR CENTRAL DAYLIGHT) TIME

Table listing radio stations with columns for Call, Location, Met., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, and Friday.

Table listing radio stations with columns for Call, Location, Met., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, and Friday.

STATIONS IN ORDER OF WAVE LENGTHS

Table listing radio stations in order of wave lengths with columns for Meters, Call, Meters, Call, Meters, Call, Meters, Call, Meters, Call, Meters, Call.

ANOTHER COW YARN; BOVINES VETO JAZZ

CINCINNATI.—The studio staff of Crosley WLW station here is not quite sure whether a fan who suggested a special program at four o'clock in the morning is serious or just kidding.

KVOO DEDICATES SET WITH GALA PROGRAM

FAMOUS ANNOUNCERS AID IN CHRISTENING PARTY

New 1,000-Watt Western Electric 'Voice of Oklahoma' Opened by Southwestern Sales Corporation

TULSA, Oklahoma.—"KVOO, the Voice of Oklahoma, broadcasting its re-dedication program of twenty-four hours. On the occasion of the opening of our new 1,000-watt Western Electric set, we are glad to announce that Tulsa and Bristow are hosts to many prominent radio personalities."

Canada Marks First Church to Go on Air

Tablet Is Unveiled in Service at Winnipeg Sanctuary

WINNIPEG, Man.—Four men recently took part in a little ceremony here that will stand as part of history. The occasion was the commemoration of the first service broadcast by radio from a church in Canada on Easter Sunday, 1923.

Business Welcomes New Station

Business was almost at a standstill in Tulsa and Bristow at the start of the twenty-four hour broadcast, opened by the speeches of Roy C. Griffin, manager of KVOO, and H. E. Rolleston, president of the Southwestern Sales corporation which owns and operates "The Voice of Oklahoma."

WGHB, Clearwater, Is Sold To New Ft. Harrison Hotel

CLEARWATER, Fla.—Station WGHB here, which has been operating for the Clearwater chamber of commerce since last January, has been sold to Ed. A. Haley, owner and builder of the new Fort Harrison hotel to be opened shortly.

Hear WJZ in Jerusalem

NEW YORK.—On a postal card received from Major L. D. Gardner by C. B. Popenoe, manager of Station WJZ, the statement is made that WJZ was heard clearly in the ancient city of Jerusalem. The card is postmarked June 3, 1926.

EDUCATING CHILD BY RADIO TOPIC OF TALK

W. E. HARKNESS OF WEAJ ADDRESSES EDUCATORS

Influence of Broadcasting on Children Is Analyzed—Further Study of Field Is Urged

PHILADELPHIA.—“The child in the home can and does tune in to any program that is available and can absorb many things which he would not otherwise hear. Under these conditions it is important that if Radio is to accomplish the greatest good for the greatest number it be in the hands of those who realize their responsibility to the listening public rather than in the hands of those who for publicity or other selfish purposes will depreciate this medium of communication.”

So stated William E. Harkness, vice-president and general manager of the Broadcasting Company of America which operates Station WEAJ in New York, in an address before the members of the National Education association meeting recently at the Garrick theater in Philadelphia.

Children Educated to Like Classics

Mr. Harkness' topic was “Radio and the Child.” Before launching into his main theme he gave his listeners a good insight of the Radio situation in general. This included some interesting data which had been compiled from questionnaires and surveys made by several important publishers throughout the country and WEAJ as well. One of these surveys determined the average listeners per set to be five.

As the result of another questionnaire, Mr. Harkness pointed out the fact that due to the children's choice of operatic and classical music it would seem to indicate that the efforts of the city and town schools to stimulate an interest in these classes of music have been effective.

In speaking of Radio and the newspaper, Mr. Harkness stated that the former would never supplant the latter, but on the other hand, both would have their own place, particularly in the field of education.

In closing Mr. Harkness stated: “So

COSTUMES HELP CARRY ILLUSION



Broadcasting in costume helps carry the character over the microphone, many artists believe. “Betsy Ross,” or Marie Rogge, who at one time gave sewing lessons to feminine fans of KPO, Hale Brothers, San Francisco, is shown as she appeared in the studio. Betsy Ross in nom de plume, she dressed Betsy Ross style.

far the so-called educational program experiments. There has been no systematic planning by the broadcasters and educators. Much remains to be done individually and collectively before satisfactory results are obtained.”

SHORT WAVES

By Marcella

(Continued from page 2)

at WTAG. His description: age, 27; eyes, blue; hair, brown; height, 6 feet 2 inches; weight, 160 pounds; disposition, happy-go-lucky. He is a great favorite with both men and ladies, and is known all through Worcester and vicinity as “Our Chester” and as “New England's Favorite”. Not only is he talented as an announcer but he plays the saxophone and accompanies at the piano excellently.

“Ribs”, where have you been? George Dewey Hay, otherwise known as the “Solemn Old Judge”, has been director of WSM, Nashville, for a long time. He announces at times, sharing this work with Jack Keefe.

Stephen Cisler, Jr., announcer at WAMD, Minneapolis, hastens to correct me regarding his past microphone experience. He has never announced from WOC or WHO. His career started at KOCH, Omaha and he substituted for a time last summer at KTHS. His recent employment took him from WDGJ, Minneapolis, to WAMD. He has however, served as guest announcer at WOAW, WAAW, WLB, WHAT and WRHM.

“Lottie” wants to have information regarding Tell Taylor and E. Clinton Keithley, singers. The former is a tall, stout fellow and works as a music publisher's representative. The latter is a middle-aged man who has composed a number of songs.

No, “Interested One”, I do not know where Mr. Leuchtman, former WCX announcer, is. Mary Tudor, WCX pianist, is at WJR. Her picture is on page 17 of this issue of Radio Digest.

Walter Wilson, KYW's “Uncle Bob”, is married, “Kathryn”, but he has no children. But then, he philosophizes, whenever the kids have a party they invite him. He loves to take a pail of angle worms, a hook or two, and his wife to some convenient creek and fish.

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.

WOMEN'S PROGRAMS INDEX

Monday

Atlantic	Eastern	Central	Mountain	Pacific
10:30 a.m. 9:30	8:30	7:30	6:30	6:30
WWJ (352.7m-850kc), Tonight's dinner.				
10:45	9:45	8:45	7:45	6:45
WTAG (268m-1120kc), Marjorie Woodman, nurse.				
11:50	10:50	9:50	8:50	7:50
WMC (499.7m-600kc), Home economics discussion, Miss Kitty.				
12 n.	11	10	9	8
WHT (399.8m-750kc), Women's club, Jean Sargent.				
WQJ (447.5m-670kc), Home Economics program.				
12:30 p.m. 11:30	10:30	9:30	8:30	8:30
WEBH (370.2m-810kc), Fashion and household talks.				
WGBF (236.1m-1270kc), Cooking instructions.				
WGN (302.8m-990kc), Home Management period.				
12:35	11:35	10:35	9:35	8:35
KYW (535.4m-560kc), Table talk.				
2	1	12 n.	11	10
KGW (491.5m-610kc), Household helps.				
WSOE (245.8m-1220kc), Ladies' hour.				
2:20	1:20	12:20	11:20	10:20
WGBF (236.1m-1270kc), Garden talk.				
2:45	1:45	12:45	11:45	10:45
WQJ (447.5m-670kc), Home economics.				
3	2	12 n.	11	
WJZ (454.3m-660kc), “Your Daily Menu.”				
3:30	2:30	1:30	12:30	11:30
KFNF (263m-1140kc), Mothers' hour.				
4	3	2	1	12 n.
WCCO (416.4m-720kc), Women's hour.				
WSOE (245.8m-1220kc), Cooking chats.				
WHD (315.6m-820kc), Ladies' hour.				
WIP (508.2m-590kc), Market hints for housewives.				
5	4	3	2	1
WOC (483.6m-620kc), Home management schedule, Aunt Jane.				
6	5	4	3	2
KMOX (280.2m-1070kc), Housewives' hour.				
WRC (468.5m-640kc), Housekeepers' half hour.				
6:15	5:15	4:15	3:15	2:15
KYW (535.4m-560kc), Meat talk, John Cutting.				
7:30	6:30	5:30	4:30	3:30
KPO (428.3m-700kc), Fashion notes.				
1:15 a.m. 12:15	11:15	10:15	9:15	8:15
KGO (361.2m-830kc), “Character Training in the Home,” E. Anderson.				
Tuesday				
Atlantic	Eastern	Central	Mountain	Pacific
10 a.m. 9	8	7	6	6
WIP (508.2m-590kc), Menu, Anna Scott.				
10:30	9:30	8:30	7:30	6:30
WWJ (352.7m-850kc), Tonight's dinner.				
10:45	9:45	8:45	7:45	6:45
WTAG (267.7m-1120kc), Talk to mothers.				
11	10	9	8	7
KDKA (309.1m-970kc), Domestic Science. Arts for the Housewife.				
12 n.	11	10	9	8
WHT (399.8m-750kc), Women's club, Jean Sargent.				
WMCA (340.7m-880kc), Home Makers' club.				
WQJ (447.5m-670kc), Home economics.				
12:30 p.m. 11:30	10:30	9:30	8:30	8:30
WEBH (370.2m-810kc), Fashion and household talks.				
WGN (302.8m-990kc), Home Management period.				
2	1	12 n.	11	10
KGW (491.5m-610kc), Household helps, shopping guide.				
2:20	1:20	12:20	11:20	10:20
WGBF (236.1m-1270kc), Garden talk.				
2:45	1:45	12:45	11:45	10:45
WQJ (447.5m-670kc), Home economics.				
3	2	1	12 n.	11
WJZ (454.3m-660kc), “Your Daily Menu.”				
4	3	2	1	12 n.
WCCO (416.4m-720kc), Women's hour.				
WEB (365.6m-820kc), Ladies' hour.				
4:30	3:30	2:30	1:30	12:30
WLW (422.3m-710kc), Cooking school.				
5	4	3	2	1
WOC (483.6m-620kc), Home management schedule, Aunt Jane.				
5:30	4:30	3:30	2:30	1:30
KFNF (263m-1140kc), Flower talk.				
5:40	4:40	3:40	2:40	1:40
WRC (468.5m-640kc), Housekeepers' chat.				

Atlantic	Eastern	Central	Mountain	Pacific
2:45 p.m. 1:45	12:45	11:45	10:45	10:45
WQJ (477.5m-670kc), Home Economics. Style chats.				
WGBF (236.1m-1270kc), Garden talk.				
3	2	1	12 n.	11
WJZ (454.3m-660kc), “Your Daily Menu,” Mrs. J. Heath.				
4	3	2	1	12 n.
WIP (508.2m-590kc), Menu talk.				
4:15	3:15	2:15	1:15	12:15
WHO (526m-570kc), Recipes, household hints.				
5	4	3	2	1
WOC (483.6m-620kc), Home management schedule.				
6	5	4	3	2
KMOX (280.2m-1070kc), Housewives' hour.				
6:30	5:30	4:30	3:30	2:30
KOA (322.4m-930kc), Housewives' matinee.				
7	6	5	4	3
KOA (322.4m-930kc), Culinary hints, Clara Hoover.				
7:45	6:45	5:45	4:45	3:45
WPG (299.8m-1000kc), Fashion Flashes.				
9:30	8:30	7:30	6:30	5:30
KGO (361.2m-830kc), As a Woman Thinketh.				
Wednesday				
Atlantic	Eastern	Central	Mountain	Pacific
10:30 a.m. 9:30	8:30	7:30	6:30	6:30
WWJ (352.7m-850kc), Tonight's dinner.				
10:45	9:45	8:45	7:45	6:45
WTAG (268m-1120kc), Talk to Housewives, Mrs. Lydia Flanders.				
12 n.	11	10	9	8
WEAO (293.9m-1020kc), Housekeepers' half hour.				
WHT (399.8m-750kc), Women's club, Jean Sargent.				
WQJ (447.5m-670kc), Home Economics program.				
Child Welfare talk. Fish dinner menu for Friday.				
12:30 p.m. 11:30	10:30	9:30	8:30	8:30
WEBH (370.2m-810kc), Fashion and Household talks.				
WGBF (236.1m-1270kc), Cooking instructions.				
WGN (302.8m-990kc), Household management period.				
12:35	11:35	10:35	9:35	8:35
KYW (535.4m-560kc), Table talk.				
1:15	12:15	11:15	10:15	9:15
KMOX (280.2m-1070kc), Cookery, Gladys Kimbrough.				
2	1	12 n.	11	10
KGW (491.5m-610kc), Household Helps, shopping guide.				
2:20	1:20	12:20	11:20	10:20
WGBF (236.1m-1270kc), Garden talk.				
2:45	1:45	12:45	11:45	10:45
WQJ (447.5m-670kc), Home economics.				
3	2	1	12 n.	11
WJZ (454.3m-660kc), “Your Daily Menu.”				
4	3	2	1	12 n.
WCCO (416.4m-720kc), Women's hour.				
WEB (365.6m-820kc), Ladies' hour.				
4:30	3:30	2:30	1:30	12:30
WLW (422.3m-710kc), Cooking school.				
5	4	3	2	1
WOC (483.6m-620kc), Home management schedule, Aunt Jane.				
5:30	4:30	3:30	2:30	1:30
KFNF (263m-1140kc), Flower talk.				
5:40	4:40	3:40	2:40	1:40
WRC (468.5m-640kc), Housekeepers' chat.				

Atlantic	Eastern	Central	Mountain	Pacific
6 p.m. 5	4	3	2	2
KMOX (270.2m-1070kc), Housewives' hour.				
KOAC (280.2m-1070kc), Housekeepers' half hour.				
7	6	5	4	3
KGO (361.2m-830kc), “Hints for Housekeeper.”				
8	7	6	5	4
KLX (508.2m-590kc), Woman's hour.				
KMA (252m-1190kc), Domestic science talk.				
8:45	7:45	6:45	5:45	4:45
WBZ (333.1m-900kc), Household management.				
Thursday				
Atlantic	Eastern	Central	Mountain	Pacific
10 a.m. 9	8	7	6	6
WIP (508.2m-590kc), Menu talk.				
10:30	9:30	8:30	7:30	6:30
WWJ (352.7m-850kc), Tonight's dinner.				
10:45	9:45	8:45	7:45	6:45
WTAG (268m-1120kc), Marjorie Woodman, nurse.				
11	10	9	8	7
WEAF (491.5m-610kc), Talks, cookery lecture.				
11:50	10:50	9:50	8:50	7:50
WMC (499.7m-600kc), Home economics discussion, Miss Kitty.				
12 n.	11	10	9	8
WEAO (293.9m-1020kc), Housekeepers' half hour.				
WEAR (389.4m-770kc), Home service talk.				
WHT (399.8m-750kc), Women's club, Jean Sargent.				
WMCA (340.7m-880kc), Food bureau program.				
WQJ (447.5m-670kc), July 1, “Out of the Can Into the Picnic Basket.” “More About Salads.”				
12:30 p.m. 11:30	10:30	9:30	8:30	8:30
WEBH (370.2m-810kc), Household and fashion talks.				
WGN (302.8m-990kc), Home Management period.				
12:35	11:35	10:35	9:35	8:35
KYW (535.4m-560kc), Table talk.				
12 n.	11	10	9	8
KGW (491.5m-610kc), Household helps.				
WGY (379.5m-790kc), July 1, “Midsummer Fashion Notes.”				
2:20	1:20	12:20	11:20	10:20
WGBF (236.1m-1270kc), Garden talk.				
2:45	1:45	12:45	11:45	10:45
WQJ (447.5m-670kc), Home economics, July 1, “Clubs Revive Buffet Luncheons.” “Shoes.”				
3	2	1	12 n.	11
WJZ (454.3m-660kc), Your Daily Menu.				
3:15	2:15	1:15	12:15	11:15
WJZ (454.3m-660kc), “Wall Paper, Room by Room,” A. Fillebrown.				
4	3	2	1	12 n.
KEO (241.8m-1240kc), Woman's hour, Mrs. Margaret B. Russell.				
4:30	3:30	2:30	1:30	12:30
WLS (344.6m-870kc), Homemakers' hour.				
5	4	3	2	1
WOC (483.6m-620kc), Home management schedule, Aunt Jane.				
6	5	4	3	2
KMA (241.8m-1240kc), Woman's hour.				
KMOX (280.2m-1070kc), Housewives' hour.				
6:30	5:30	4:30	3:30	2:30
KOA (322.4m-930kc), Housewives' matinee.				
WCCO (416.4m-72				

STATIONS TO FEATURE MUNICIPAL

HIGH LIGHTS OF THE AIR

SUMMER has not affected the quality of programs, only changed them in tone. Many municipal organizations such as the Baltimore City Parks orchestra and Municipal band, Denver Municipal band, New York Philharmonic orchestra and Newark Philharmonic band are bringing music of an outdoor type into the homes of millions. Band concerts may now be enjoyed by all on cool, moonlit evenings.

Continuity programs with a definite thread running through them are being given more and more by radio stations. "On the Volga River," a John Clark production at WSWS, Thursday, July 15, is a program of this sort. Folk songs native of the country through which this river flows will be sung. Interesting bits of folk lore will be given, and the invisible listener will carry away with him a musical picture of a part of the world he has perhaps never seen.

A reading of unusual interest will be given from WMAQ, Friday, July 16, when Prof. B. G. Nelson of the University of Chicago gives a reading from "Cyrano de Bergerac." Alumni of the university who have taken public speaking with Prof. Nelson will enjoy tuning in.

WIP will take the listener who is not able to attend the Sesquicentennial into the middle of the great fair Saturday, July 17, and let him listen to the Episodic drama. As this great pageant unfolds the announcer will be the eyes of his audience.

Who does not remember Gertrude O'Neil Ganley whose mischievous fun made her such a favorite at the Gold

Medal Station WCCO. She has been absent for some time but returns Saturday, July 17, to make up for lost time and to amuse her friends with some new readings.

Another program the Gold Medal station schedules this month which will attract listeners is the listing of Flor's Little German band, Saturday, July 24. All the old German favorites will be played as only a German band can play them. This is only one of the international dance programs being given at WCCO.

Is there anyone who does not know the Charleston? At least the dance floors refuse to give them away. But perhaps some poor wallflower unable to bend his knees in this famous dance will welcome WLW, Monday, July 26. Tune in quietly and take your first lesson, but, a little warning, do not try it with the earphones on.

Monday, July 26, is also to be famous because a popular pair well known to middle westerners, Clara Kurtz and her Chocolate Cake-Eater are entertaining this same evening at KOIL.

First aid to the campers is the new idea at WGHP, Detroit. And a good idea it is. You may find out during this Tuesday evening half hour how to carry less and yet better supplies, how to cook over an open fire and even what to do when it rains; in other words how to be a camper de luxe.

Finish off the month with that peppy bunch of artists, Ray Jones' orchestra and singers. Not only does this group play all the latest jazz songs but also sings them.



RUSSIAN dance music floats over lively group below confront the These young refugees have band as the Russian Art troupe. WCCO pl national dance music programs during featuring these talented Russians will dance orchestra, and Flor's Little G and to the left are two young musician gentlemen who read our Marcella col is a pretty little blues singer who Chicago station to another. She is s from both WMBB and KYW. On t regular entertainer at WJR. She s

Thursday, July 15

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
6	5	4	3	2
WMCA (340.7m-880ke), Hofbrau Haus entertainers.	5:30	4:30	3:30	3:30
WRC (468.5m-640ke), WGY (379.5m-790ke), WJZ (454.3m-680ke), U. S. Marine band.	6	5	4	3
WTIC (475.9m-630ke), Scottie Miller.	9:30	8:30	6:30	5:30
WHAAS (399.8m-750ke), Virginia Vetter's entertainers.	10	9	7	6
10	9	8	7	6
KGO (381.2m-830ke), Fishin' Jim Pike.	10:30	9:30	8:30	6:30
WOAI (394.5m-760ke), Mistletoe Melody Maids.	11	10	8	7
WPG (299.8m-1000ke), Johnny Hamp's Kentuckians.	11	10	8	7
WSWS (275.1m-1090ke), "On the Volga River," John Clark production.	12:20 a. m.	11:20	10:20	9:20
KGW (491.5m-610ke), Vaudeville, five twenty-minute acts.	12	11	10	9
KNX (336.9m-890ke), Balboa Beach Nuts.	1:30	12:30	11:30	10:30
KPO (428.3m-700ke), Spanish songs, Francesca Ortega.	1:45	12:45	11:45	10:45
WDAF (365.8m-820ke), Nighthawk frolic.				

Thursday, silent night for: CHIC, CKNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFH, KFOA, KFUD, KMO, KOA, KOB, WAAG, WCAP, WEA, WEBJ, WGBF, WHAD, WHAZ, WMAK, WOOD, WOR, WOS, WSM, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKNC, Toronto, Can. (356.9m-840ke), 8 p. m., Charles E. Bodley and his dance orchestra; Elsie Addison, contralto; Arthur Bailey, tenor.

CNRM, Montreal, Canada (410.7m-730ke), 9 p. m., CNRM instrumental quartet.

CNRT, Toronto, Canada (356.9m-840ke), 8:30 p. m., Luigi Romanelli and his King Edward hotel concert orchestra; 10, CNRT string quartet.

WBRR, New York, N. Y. (272.6m-1100ke), 8 p. m., Josephine Locke, violinist; 8:10, Walter Stoll, tenor; 8:20, Bible lecture; 8:40, tenor; 8:50, violinist.

WCAU, Philadelphia, Pa. (277.6m-1080ke), 5:30 p. m., Cathy orchestra; 7:30, Snellenburg symphony orchestra; 8, Sadders Plantation serenaders; 8:30, Clifton's Anglers; 9, Barry O'Moore, Irish tenor; 9:45, Professor Doolittle; 10, recital; 10:15, Frank Worthington, baritone; 10:30, Eddie Campbell's orchestra; 11, Club Cadix revue.

WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, Hotel Waldorf-Astoria orchestra; Meyer Davis Park Lane orchestra; Tiger Serenaders; Hires Harvesters; Clitquot Club Eskimos; Silvertown Cord orchestra; Buffalodians.

WEEI, Boston, Mass. (348.6m-860ke), 8 p. m., Michael Ahearn, baritone; 7:45, musical; 8, WEAF.

WFJ, Philadelphia, Pa. (394.5m-760ke), 7:15 p. m., Keystone auto club feature; 8:15, WEAF.

WGBS, New York, N. Y. (315.8m-950ke), 6 p. m., Uncle Geebee; 6:30, music; 6:45, George Hall and his Royal Arcadians; 9, Giuseppe Leone, operatic baritone; 10:20, Royal Arcadians, Arcadia ballroom.

WGR, Buffalo, N. Y. (319m-940ke), 6:30 p. m., Vincent Lopez' Hotel Statler orchestra; 8-11, WEAF.

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Sausie hotel trio; 9, studio concert; 11, Follies Bergere dance orchestra.

WHN, New York, N. Y. (361.2m-830ke), 8 p. m., Will Oakland's chateau; 8:30, Loew's Gates theater orchestra; 9:30, Loew's 83rd St. theater orchestra; 10:30, Leroy Smith's orchestra; 11, Club Alabam orchestra; 11:30, Everglades orchestra; 12, Sophie Tucker's Play-ground orchestra.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m., Benjamin Franklin concert orchestra; 8, Hotel Ambassador orchestra; 8:30, Million Dollar Pier orchestra; 9, Hotel Ambassador concert orchestra; 9:30, Hotel Traymore concert orchestra; 10, Ted Weem's dance orchestra; 10:30, Johnny Hamp's Kentuckians; 11, Hotel Shel-

burne dance orchestra; 11:30, Silver Slipper revue.

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Hotel Pennsylvania concert orchestra; 7:40, Judge, Jr., 8, First National presentation, "It Must Be Love," WRC; 8:30, U. S. Marine band, WRC, WGY, WCAD, 9:30, Royal Typewriter Salon orchestra, WGY, WRC, WCAD; 11, WRC.

WLIT, Philadelphia, Pa. (394.5m-760ke), 7:30 p. m., Benjamin Franklin concert orchestra.

WMCA, New York, N. Y. (340.7m-880ke), 7 p. m., Hofbrau Haus entertainers; 8, Roemers Homers; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway night.

WNYC, New York, N. Y. (526m-870ke), 6:10 p. m., piano selections.

WOC, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Adelpia Roof Garden orchestra.

WOR, Newark, N. J. (405.2m-740ke), 6:15 p. m., Jacques Jacobs Hotel Shelton ensemble; 7, Jacques Jacobs Hotel Shelton ensemble.

WPG, Atlantic City, N. J. (299.8m-1000ke), 6:45 p. m., Arthur Scott Brook, organist; 7, Hotel Morton dinner music; 7:45, Hotel Ambassador dinner music; 9:30, Hotel Traymore concert orchestra; 10, Ted Weem's Novelty dance orchestra; 10:30, Johnny Hamp's Kentuckians; 11, Hotel Shelburne dance orchestra; 11:30, Silver Slipper supper club dance orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1m-970ke), 6:30 p. m., Pittsburgh Athletic association; 8:30, half hour with famous composers, Symphony players; 9, Symphony players; Ward Whitney, baritone; 10:05, Pittsburgh Post dance program.

KYW, Chicago, Ill. (535.4m-560ke), 6:30 p. m., dinner concert, Congress hotel; 8-9, "Twenty Minutes of Good Reading"; 9-10:30, classical program; 10:30-12, Congress carnival.

WADC, Akron, Ohio (258.5m-1160ke), 9 p. m., Silver-town Cord orchestra; 10, Roseland dance orchestra.

WBAL, Baltimore, Md. (245.8m-1220ke), 6:30-7:30 p. m., WBAL dinner orchestra; 7:30-8, mixed quartet; John Wilbourn, tenor; 8-9, WBAL trio; 9-10, WBAL dance orchestra.

WBBM, Chicago, Ill. (225.4m-1330ke), 4-5 p. m., musical matinee, WBBM staff, other artists; 5-6, Eddie Hansen, organist; 8-9:30, Lee Sims, Kay Ronayne, contralto, "Hi and Si," Eunice Hoefler, organist; Alemitie string trio, Jack Crawford's Alemitie High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra; 9:30-10:15, Moss Covered melodies; 10:15-10:30, Isaak Walton hour; 10:30-11:30, First National violin ensemble, Vic Fredericks, baritone; Maurice Silverman, tenor; WBBM staff; 11:30-12, Howard Osburn's Vanity Fair cafe orchestra, Jack Crawford's Alemitie High Pressure orchestra.

WEZ, Springfield, Mass. (333.1m-900ke), 6 p. m., Hotel Lenox trio; 8:33, Hotel Lenox ensemble; 8, Robert Bates, organist; 8:30, Martino studios; 9, announced; 9:30, dance orchestra.

WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers.

WGHP, Detroit, Mich. (270.1m-1110ke), 6 p. m., dinner concert; 10, WGHP Frolickers, Heck and Mac; Motortown trio; Edie and Mrs. Eddie; 11, Skyland dance band; Winifred Huntoon, soprano; 12-1 a. m., Gerald Marks' orchestra.

WGN, Chicago, Ill. (302.8m-990ke), 6:45-7 p. m., request program; 8-9 WEAF; 9-10, WEAF; 10-10:10, Sam 'n' Henry; 10:10-10:20, Music Box; 10:20-10:30, great moments from grand opera; 10:30-11, WGN studio ensemble.

WHAR, Atlantic City, N. J. (275m-1090ke), 7:30 p. m., announced; 8, Seaside hotel trio; 9, studio concert; 11, Follies Bergere dance orchestra; Jimmy Carr, doctor of melody.

WJAZ, Chicago, Ill. (329.5m-910ke), 9-12 midnight, Spanish Garden studio; Franz Wagner, cellist; Frances Barradell trio; 8:30, Jacob Hannemann, pianist; Kennard Barradell trio.

WJJD, Moosehart, Ill. (370.2m-810ke), 7-9 p. m., music by children of all ages; solos, bands, etc.; 9-11, Palmer House Victorians, WJJD quartet; 11:30-12:30 a. m., Knights of the Burning Candle.

WLIB, Chicago, Ill. (302.8m-990ke), 7-7:05 p. m., Helen sing; 7:05-7:15, Old Fashioned Almanack; 7:15-8, Drake concert ensemble; Blackstone string quintet; 11-11:20, Correll and Gosden; 11:20-1 a. m., Liberty studio ensemble; Ambrose Larsen, organist; Bobby Meeker's Drake hotel dance orchestra; Fred Hamm's orchestra.

WLS, Chicago, Ill. (344.6m-870ke), 6:30 p. m., Elsie Mae Look, organist; 6:45, Maurie Sherman's College Inn orchestra; 7, Elsie and Ralph, Lullaby time; 7:15, Ross Sherman, violinist, and Marie Ludwig, harpist; 7:30, Al Melgard, organist; 8:20-8:55, Mu Phi Epsilon program.

WLW, Cincinnati, Ohio (422.3m-710ke), 6:15 p. m., Norrine Gibbons, Frisic Holbrook; 7, Robert Vis-

conti's orchestra; 7:30, "Your Week-End Trip," Cincinnati Automobile club; 8, Salvation Army concert; 9, Buckeye Instrumental trio concert; 10, "Thets' Castle Farmers," Al Kirschner, piano, saxophone duets; 12:15 a. m., Night Howls.

WMAQ, Chicago, Ill. (447.5m-670ke), 6 p. m., Chicago theater organ; 6:30, orchestra; 8:25, Whitney trio; 9, Constance Eberhart, soprano; 9:30, Jack Chapman's orchestra.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon ensemble, Elizabeth Beohk, cellist; Margaret Conrad, violinist; Preston Graves, pianist; Oriental musical program; 9-11, Trianon orchestra, Dell Lampe; Wood-lawn theater orchestra, Armin F. Hand; Trianon ensemble; Joe Parsons, baritone; Jack Brewton, "musical saw"; Bob Smith, John Stamford, popular program.

WORD, Batavia, Ill. (275m-1090ke), 8 p. m., musicale; Sunday school lesson.

WOK, Chicago, Ill. (217.3m-1380ke), 6-7 p. m., string ensemble concert, Tip-Pop Inn; 10-1:30 a. m., Tear-ney's Town club orchestra; Midway Garden orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.

WOL, Chicago, Ill. (447.5m-670ke), 7-8 p. m., Rainbo Gardens orchestra; Sheppard Levine, tenor; Jeanette Van Lennep, soprano; 10-2 a. m., Rainbo Gardens orchestra; Jerry Sullivan; Harry Geise; Lew Butler; Bert Davis; Frank Blasko, boy tenor.

WRC, Washington, D. C. (468.5m-640ke), 7 p. m., WJZ; 7:30, U. S. Marine band; 9, WJZ; 9:30, WRC players; 10:30, Meyer Davis' Swance synopators.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble; 8:15, WREO concert orchestra.

WRVA, Richmond, Va. (256.3m-1170ke), 8:45 p. m., Elizabeth City, North Carolina program; 11:45, Carry Me Back to Old Virginia.

WSA, Cincinnati, Ohio (325.9m-920ke), 7:30 p. m., WEAF.

WSWS, Chicago, Ill. (275m-1090ke), 6 p. m., Rita McFawn, Hugh Aspinwall; 7, Edgar Balfour, baritone; Eulalia Kober, pianist; ballads, Iona Kinz; Walter Lewis; 10, "On the Volga River," Terrace Gardens quintet; 11, orchestra; Glen A. Moffatt, pianist; Kenneth Clark, guitarist; Hugh Aspinwall; Gail Bandell, Myron Chon; 12 midnight, waltzing hour, Henri Therrien, orchestra, John Clark, Zola Haynes.

WTAM, Cleveland, Ohio (389.4m-770ke), 6 p. m., Hol-lenden hotel orchestra; 7:15, WEAF; 8, WEAF; 9, studio program; 11, Jack Horwitz Collegian serenaders.

WTIC, Hartford, Conn. (475.9m-630ke), 7 p. m., "Scotti" Miller; 8, Pot-an-to melody makers and Manchester male quartet; 9, Emil Heimberger's Hotel Bond dance orchestra.

WJL, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; 7, WEAF.

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040ke), 9 p. m., musical program, Lincoln, Nebr.

KFNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., Margaret Tetten Zeigenben.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., surprise program.

KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., Eileen Bowman, organist.

KOIL, Council Bluffs, Iowa (278m-1080ke), 6:03 p. m., Jamieson Oil duo; 6:30, Art Marr's Imperial orchestra; 7, Strawn Sisters; 8, Harno-Jazz orchestra; 11, fretted instruments, Francis Potter.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., J. Harry Kobusch and his orchestra; Carl Moritz, vocal entertainer; 9, Southern Pacific Lines' band.

KWCR, Cedar Rapids, Iowa (278m-1080ke), 12 midnight, frolics.

KWVG, Brownsville, Texas (277.6m-1080ke), 8:30-9 p. m., piano recital, Bertha Young; 9-9:15, Annie Tucker, soprano; 9:15-9:40, the Rancheros, Doc Dutro, harmonica; Tom Barber, pianist; P. K. McNair, guitarist; E. L. Nye, yodler; 12:01-1 a. m., novelty and jazz; E. G. Toothman, announcer; Beth Sewell and Florine Pierce, accompanists.

WCBD, Zion, Ill. (344.6m-870ke), 9 p. m., annual grand ensemble concert.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 7 p. m., WEAF.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., Billy Adair's orchestra; 11:45-1 a. m., Nighthawk frolic.

WFAP, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Jimmy Joy's orchestra; 8:30-9:30, Little symphony orchestra.

WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., Virginia Vetter's entertainers.

WHB, Kansas City, Mo. (365.6m-820ke), 7-7:30 p. m., Morrill Moore, organist; 8-9:15, Hawaiian trio.

WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9, Bankers Life trio.

WOAI, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Mistletoe Melody Maids.

WOAW, Omaha, Nebr. (526m-570ke), 6 p. m., Elks organ; 6:25, Francis Potter, banjoist; 6:50, orchestra; 9, classical.

WOC, Davenport, Iowa (483.6m-620ke), 6-6:30 p. m., WEAF; 7-9, WEAF; 9-9:30, Moline Plowboys.

WRR, Dallas, Texas (245.8m-1220ke), 6-7 p. m., Jack Gardner's orchestra; 8-9, musicale; 9:30-10:30, Dyo Duo.

WSMB, New Orleans, La. (319m-940ke), 8:30-10:30 p. m., Radio Revelers orchestra, Liberty theater orchestra.

WSOE, Milwaukee, Wis. (245.8m-1220ke), 7 p. m., Elks club studio; 8, Bible class, Dr. J. C. O'Hair; 9, WSOE Lakeland studio.

Mountain Standard Time Stations

CNRC, Calgary, Can. (435.8m-688ke), 9 p. m., Symphony orchestra.

KFXF, Colorado Springs, Colo. (250m-1200ke), 9 p. m., Mrs. Geo. A. Edwards, soprano; Eula Whitmore Mathews, pianist; Jimmie Stevenson, violinist; Elsie Hick, pianist; H. C. Beattie, Scotch songs.

KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., Brown Palace string orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., popular song program; 8-9, varied program; 9-10, grand opera hour; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFWB, Hollywood, Calif. (252m-1190ke), 7-8 p. m., program, O'Neal and Sons; 8-9, program, McGavin Bros. Bakeries; 9-10, program, Dell's Ice Cream; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-830ke), 6-6:55 p. m., Ben's Little symphony orchestra; 8-9, touring information; Ramon Oden Hawaiian players; Fishin' Jim Pike; WOW male trio; 9-12, dance music.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 8:20-10, vaudeville, "Yellow Kids," Ebony and Ivory; Brice Mortgage 5 1/2 percenters; Tommy Luke's Flower Girls; 10-12, Cole McElroy's dance orchestra.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:50 p. m., Uncle John and the children; 8-10, Zoellner string quartet; 10-11, dance music.

KJR, Seattle, Wash. (384.4m-780ke), 8:30-10 p. m., Post Intelligence studio program; 10-10:30, Benjamin Franklin Elec. company musical program; 10:30-12, "Keep Joy Radiating Order of Bats."

KPO, San Francisco, Calif. (428.3m-700ke), 6:30-7 p. m., States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, KPO string quartet; 9-10, Spanish songs, Francesca Ortega; 10-11, Mandarin cafe dance orchestra.

KPSN, Pasadena, Calif. (315.6m-950ke), 8-9 p. m., musical program, auspices Pasadena Chamber of Commerce.

KTAB, Oakland, Calif. (329.9m-1250ke), 7-7:30 p. m., shopping hour; 8-10, studio program.

DANCING

Central Time

Saturday

9, Webh, Wjaz, V Wnye, Wreo; 9:10, Wip; 9:30, Kths, Wrc; 10, Kfwa, Koa, Kpo, Wgn, Wjag, Wjr, Wnca, Wnye, Wor, Wreo; 10:30, Waco; 10:30, V 10:45, Wis; 11, Wfwb, Kpo, Webh, Wbu, Wwo, Wjag, 11:30, Kfoa; 11:45, 12, Kgo, Kgw, Wbu, Wjag, Wjld

Sunday

8, Wgcp; 9, Wjar, Wor; 9:15, V 10, Kths, Wgbu, Wrc, Wnye, Wpg; 10:15, Kths; 10:30, Wnn; 10:45, Wsb, Kgw, Koll, Wgbu, Wjag; 11:45, Wdaf, Kgw, Kth, Knx, Wdaf, Wjag; 1, Wc

Tuesday

8, Wpg; 9, Wps; Kths; 10, Wbbm, Webh, Wgbu, Wgn, Wnca, Wnye; 10:15, Kths; 10:30, Wnn; 10:45, Wsb, Kgw, Koll, Wgbu, Wjag; 11:45, Wdaf, Kgw, Kth, Knx, Wdaf, Wjag; 1, Wc

Wednesday

9, Wex, Webh, Wgbu, Wnn, Wrc, Wsb, Wnca; 9:15, Wahg; 9:30, V Who, Wor; 10, Wbap, Wefaf, Wgcp, 10:30, Wbad, 11, Koll, Kpo, Wgbu, Wgcp, Wgr, Wjag; 11:45, Wdaf, Kfwa, Knx, Kpo, Wjld.

Thursday

8, Wjr; 9, Webh, Wgbu, Wnn, Wrc, Wsb, Wnca; 9:05, Wip; 9:30, Wgbs, Wnn; 9:35, Wnye, Kths, Wbbm, Wgbu, Wnn, Wnca, Wjag; 10:30, Kths, Webh, Wgbu, Wnn, Wnca, Wjag; 11:45, Wdaf; 12, Khj, Knx, Kpo, W.

Friday

8, Wjag; 9, Wex, Wgbu, Wnn, Wrc, Wsb, Wnca; 9:15, Wahg; Wgcp, Wnn; 10, Kpo, Kths, Wgbu, Wnn, Wnca, Wjag.

Friday, July 16

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
8:30 p. m.	7:30	6:30	5:30	4:30
KPNF (263m-1140ke), Widney Sisters.				
WEEI (348.6m-870ke), Neapolitan Dutch Girls quintet.	8:15	7:15	6:15	5:15
WMAQ (447.5m-670ke), "Cyrano de Bergerac," Prof. B. G. Nelson.				

WGHP WILL GIVE CAMPERS ADVICE

Saturday, July 17

Eastern Standard or Central Daylight Saving Time Stations

Minstrels; 10:15, dance orchestra; 10:45, Ted Weems' novelty dance orchestra; 11:30, dance music.

KDKA, Pittsburgh, Pa. (300.1m-970ke), 5:30 p. m., band concert; 8:30, Westinghouse Employees band.

KYW, Chicago, Ill. (535.4m-560ke), 7 p. m., music hour; 8, KYW's Congress hotel studio; 9-10:30, classical concert; 10:30-12 midnight, Congress carnival; Benson orchestra.

WADG, Akron, Ohio (285.5m-1160ke), 9 p. m., Roseland dance orchestra.

WBBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 8-9:30, Pullman Porters' quartet, Lee Sims, Eunice Hoefler, organist, "Hi and Si," Alemitte string trio, Fred L. Jeske, baritone, Kay Ronayne, contralto; 9:30-10, Moss Covered melodies; 10-11:30, Fred L. Jeske, baritone, Florence Sangor, pianist, Smith and Ford, Alemitte High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Eunice Hoefler, organist; 11:30-2 a. m., Pullman Porters' quartet, Jack Crawford's Alemitte High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, WBBM staff artists.

WEZ, Springfield, Mass. (333.1m-900ke), 6 p. m., Capitol theater orchestra; 8, musicale; 8:30, Hotel Westminster orchestra; 9, musicale.

WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-9, Arthur Dunas popular program; 9-10, All-American Pioneers; 12-2 a. m., frolic.

WGES, Chicago, Ill. (249.9m-1200ke), 8-9 p. m., Gyon's Paradise Ballroom orchestra; Frank Sylvano, Esther Richards, W. Remington Welch, Thim theater organ, Tom Wheeler, Pat Ryan; 11-1 a. m., frolic.

WGN, Chicago, Ill. (302.8m-990ke), 6:35-7 p. m., dinner music, Drake concert ensemble, Blackstone string quintet; 8:10-8:20, Drake concert ensemble; 8:20-8:30, Correll and Gosden; 8:30-9, Fred Hamm and his orchestra; 9-9:30, light opera period; 9:30-10, musical program; 10-10:10, Sam N. Henry; 10:10-10:22, Music Box; 10:22-11, WGN studio ensemble.

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio.

WJAZ, Chicago, Ill. (329.5m-910ke), 9-1 p. m., Avery McIntyre, pianist; James Harvard, cellist; Harry Davis, baritone; Marie Wright, soprano; Chez Pierre Hawaiian quartet.

WJJD, Mooseheart, Ill. (370.2m-810ke), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Compton's "I see by the newspaper" man; Palmer House Victorians; 7-9, Isabel Defaut, Palmer House Victorians, Simeon Oliver; 9-11, Isabel Defaut, Palmer House studio, Cook Sisters; 11-1, Settlin' Up Hour.

WLIB, Chicago, Ill. (302.8m-990ke), 7:05-7:15 p. m., Old-Fashioned Almanack; 7:15-7:30, Drake concert ensemble, Blackstone string quintet; 7:30-8, Drake concert ensemble; Pattison Coates, baritone; 11-11:20, Correll and Gosden; 11:20-1 a. m., Liberty Studio ensemble; Ambrose Larsen, organist; Drake hotel dance orchestra; Fred Hamm's orchestra.

WLS, Chicago, Ill. (344.6m-870ke), 6:30 p. m., Elsie Mae Look, organist; 7, Lullaby time, Elsie and Ralph; 7:15, National barn dance with fiddlers and callers; 1 a. m., Ralph Emerson, organist; WLS Twin Wheeze.

WLW, Cincinnati, Ohio (422.3m-710ke), 7 p. m., Johanna Grosse, organ concert; 7:30, meeting of the Secretary Hawkins Radio club; 8, Johanna Grosse; 8:30, Henry Theis' Castle Farmers.

WMAQ, Chicago, Ill. (447.5m-670ke), 6 p. m., Chicago theater organ; 6:30, Jack Chapman's orchestra; 8:30, photologue; 9, Chicago theater weekly Radio revue.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon ensemble, Elizabeth Roehlk, cellist; Margaret Conrad, violinist; Preston Graves, pianist; Davida Boyd, whistler.

WOK, Chicago, Ill. (217.3m-1380ke), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1 a. m., Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra, Katz and his Kittens' orchestra; Capitol theater program.

WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., Elizabeth Barker Van Campen hour of music; 10:05, Bob, Hazel McOsker, Freddie Gleason, Thelma Dykman, Louie Cunningham, Dodo and Mom, Van Wyck's instrumental quartet, Ramona Gardens orchestra.

WORD, Batavia, Ill. (275m-1090ke), 7 p. m., Webster Hotel concert program; 9, studio program.

WQJ, Chicago, Ill. (447.5m-670ke), 7-8 p. m., dinner concert hour; Edmund B. Kelly, baritone; Katherine Gray, soprano; Katherine McDevitt, pianist; 10-3 a. m., orchestra; Jerry Sullivan; Harry Geise; Joe Warner; Bert Davis, Nubs Allen; Rita McFawn.

WRC, Washington, D. C. (468.5m-640ke), 7:30 p. m., New York Philharmonic society; 8:30, announced; 9, 10, hour of music; 10, dance program; 11, Otto F. Beck, organist.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 10-12, Speed-Wagon serenaders; Merwin Jenkins, blind entertainer.

WSAI, Cincinnati, Ohio (325.9m-920ke), 8:30 p. m., Bicycle Playing Card sextet; 12 midnight, Lelia Lee-Mar, Latorni; Melody Boys; Norinne Gibbins, Priscilla Holbrook, Maids of Melody.

WSWS, Chicago, Ill. (275m-1090ke), 6 p. m., William Dyckman, bass; Georgia Gray, Zola Haynes; 8, Terrace Gardens orchestra; Peter Grosso, tenor; John Clark, baritone; Zola Haynes, pianist; Ned Becker, comedian; 10, Terrace Gardens quintet; Gail Bandell, blues; Freddie Wittmer; Matthews Sisters; 12 midnight, Witching hour.

WTAM, Cleveland, Ohio (389.4m-770ke), 6 p. m., Jack Horwitz Collegian serenaders; 7:30, studio program; 8, Hollenden hotel orchestra; 9, Novelty studio program.

WWJ, Detroit, Mich. (352.7m-850ke), 7:30 p. m., Goldman band concert.

Central Standard Time Stations

KFNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., open; 11, old-time music.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Marshall Van Pool and his Radio KVOO orchestra.

KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., studio program arranged, Mrs. Wm. De Bernadi.

KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., Ye Olde Tyme Gang orchestra; Willy Cunningham, the farmer Scotchman.

KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinet Jules, organist; 7, KMOX Radio orchestra; Porter Brown, banjoist; 9, KMOX Radio orchestra; 9:30, Bible readings, Rudy Downey; Rolf Gaudard, celeste song bells; 10, KMOX Radio orchestra.

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 6:30 p. m., Miss Leo Kearsse, piano selections; 7:30, Mrs. Frank Brown, soprano; Wilma Melotz, contralto; 8, Grace Dennison Shaeffer, director; 11, Hotsy Totsy hour.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., Universal Bible class, Rev. M. M. Wolf; 8, Skyline studios popular concert.

WBAP, Fort Worth, Texas (475.9m-630ke), 8-8:30 p. m., Vesper symphony; 9:30-11, Hired Hand's Little symphony.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 6:15 p. m., Emmet Long's Golden Pheasant orchestra; 8:15, Gertrude O'Neil Canley, reader; Lucille Frankman Murphy, accompanist; Sophie Epar, banjoist; 9, Jenny Lind quintet; 10:05, Wallie Erickson's Coliseum orchestra; Collegiate Harmonizers; Don McKinnon, tenor; Ruth McKibben, accompanist.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., orchestra; 11:45-1 a. m., Nighthawk frolic.

WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Jimmy Joy's orchestra; 8:30-9:30, Mozart choral club; 11-12, Jack Gardner's orchestra.

WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., concert, W. R. Cason, director; Girl's vocal quartet; male vocal quartet; Harriet Ella Cason, pianist.

WMC, Memphis, Tenn. (499.7m-600ke), 8:30 p. m., Memphis Plectrum orchestra.

WOAW, Omaha, Nebr. (526m-570ke), 6:50 p. m., or-



Queen Titania and all her court appear at KHJ, Los Angeles, regularly once a month or even oftener depending upon the moon and various other things which only fairies can understand. No one knows the queen's mortal name but it is generally known that this pretty young lady is a child star of great promise. The dancer standing at the left looks as if she might belong to the fairy court of Queen Titania. She is Ruth Russell Matlock, soprano, who sings, plays the piano, acts and dances before the microphone of WFBH, New York.

inger and Hepp, Inc.; 8-11, Warner Brothers Saturday night frolic.

KGO, Oakland, Calif. (361.2m-830ke), 8:10-9 p. m., Sacramento string quartet; Laura Broderick, soprano; 9-10, Western Pacific band; 10-1 a. m., Wilt Zenzendorfer's Hotel Whitcomb band.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 10-12 midnight, Herman Kenil's orchestra; Punch Green, pianist.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:30 p. m., Uncle John and the children; 8-10, varied musical program.

KJR, Seattle, Wash. (384.4m-780ke), 8:30-10 p. m., L. Warner Co. studio program.

KNX, Hollywood, Calif. (336.9m-890ke), 7:30-8 p. m., studio program; 8-10, program, Broadway Department store; 10-11, Ambassador hotel dance orchestra; 11-1 a. m., Edgewater club.

KPO, San Francisco, Calif. (428.3m-700ke), 6:30-7:30 p. m., States Restaurant orchestra; 8-12 midnight, Manhattan cafe orchestra.

KPSM, Pasadena, Calif. (315.6m-950ke), 8-9 p. m., Star-News instrumental ensemble and vocal artists.

Sunday, July 18

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
7:20 p. m.	6:20	5:20	4:20	3:20
WEAF (491.5m-610ke), WEEI (348.6m-870ke), KSD (545.1m-550ke), WCAP (468.5m-640ke), WWJ (352.7m-850ke), WJAR (305.9m-980ke), WCAE (461.3m-650ke), Capitol Family.	8	7	6	5
8	7	6	5	4
WOK (217.3m-1280ke), Katz and his Kittens.	9:15	8:15	7:15	6:15
9:15	8:15	7:15	6:15	5:15
WFAA (475.9m-630ke), Tom D. Collins and his Gibson mandolin and guitar club.	9:30	8:30	7:30	6:30
9:30	8:30	7:30	6:30	5:30
WEO (526m-570ke), Fourteenth Cavalry band.	9:45	8:45	7:45	6:45
9:45	8:45	7:45	6:45	5:45
WEAF (491.5m-610ke), WEEI (348.6m-870ke), WJAR (305.9m-980ke), WTAG (268m-1120ke), WCHS (256.3m-1170ke), WSAI (325.9m-920ke), Goldman band concert.	10:15	9:15	8:15	7:15
10:15	9:15	8:15	7:15	6:15
WEEI (348.6m-870ke), Keith's Radio revue.	12 m.	11	10	9
12 m.	11	10	9	8
KNX (336.9m-890ke), Circle theater organ.				

Sunday, silent night for: CFAC, CHIC, CKAC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRY, CNRW, KFAB, KFJ, KFJK, KFOA, KFXF, KMA, KWWG, WAHG, WDAF, WEOA, WEJ, WEBW, WFI, WGBF, WGBH, WGHP, WHAS, WHAZ, WJAZ, WJJD, WJB, WLIT, WLWL, WMAQ, WMC, WNYC, WOAW, WOI, WOOD, WRC, WREO, WRVA, WSB, WSM, WTAM, WTIC.

Atlantic or Eastern Daylight Saving Time Stations

CFCA, Toronto, Can. (356.9m-840ke), 11 a. m., St. Paul's Anglican church; 7 p. m., Timothy Eaton Memorial church; 9:30, CFCA's concert orchestra.

WBBR, New York, N. Y. (272.6m-1100ke), 10 a. m., Bible lecture, music; 2 p. m., Watchtower orchestra; 9, Watchtower instrumental trio.

WCAU, Philadelphia, Pa. (277.6m-1080ke), 11 a. m., First Unitarian church services; 5 p. m., recital; 5:35, Undenominational church services; 5:55, sermon, Rev. John W. Stockwell; 6:45, Hotel Pennsylvania orchestra; 7:45, Cathay Garden orchestra; 8:30, Barry O'Moore and the Bonwit Teller ensemble.

WEAF, New York, N. Y. (491.5m-610ke), 3-4 p. m., Greater New York Federation of Churches; 4:30, vespers, Federation Mixed quartet; 5:30, Chevalier Luigi Constantino, pianist; 6, Carl Rollins, baritone; 7:20, Capitol Family, WEEI, KSD, WCAP, WWJ, WJAR, WCAE; 9:15, Atwater Kent Radio half hour, WEEI, WGR, WCAP, WWJ, WSAI, WGN, WCCO, KSD; 9:45-10:15, Goldman band concert, Waino Kauppi, cornetist, WEEI, WJAR, WTAG, WCHS, WSAI.

WEEI, Boston, Mass. (348.6m-800ke), 7:20 p. m., WEAF; 9:15, WEAF; 9:45, WEAF; 10:15, Keith's Radio revue.

WGR, Buffalo, N. Y. (319m-940ke), 8:30-10 p. m., WEAF.

WHAR, Atlantic City, N. J. (275m-1090ke), 10:45 a. m., Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50, Chelsea Baptist church; 9, Seaside hotel ensemble.

WHN, New York, N. Y. (361.2m-830ke), 7:30 p. m., Calvary Baptist church; 10:45, Janssen's Hofrau orchestra; 12, Sophie Tucker's Playground orchestra.

WIP, Philadelphia, Pa. (508.2m-590ke), 4:15 p. m., community vocal and instrumental recital; 7:15, service, Holy Trinity church; 9:15, concert, Steel Pier; 10:30, Atlantic City high school; 11:45, H. M. E.

WJZ, New York, N. Y. (454.3m-660ke), 6 p. m., staff recital; 6:45, Hotel Pennsylvania concert orchestra; 7:05, Park avenue Baptist church Carillon; 7:25, Hotel Pennsylvania concert orchestra, WGY; 8:30, Hotel Madison concert orchestra; WGY; 9:30, Godfrey Ludlow, violinist; Ann Louise Fabozzi, pianist.

WMAK, Buffalo, N. Y. (256.3m-1130ke), 7 p. m., Church Hill Tabernacle evening service.

WMCA, New York, N. Y. (340.7m-880ke), 7 p. m., Ernie Golden and his Hotel McAlpin orchestra; 9, Jewish Forward hour.

WOO, Philadelphia, Pa. (508.2m-590ke), 10:45 a. m., services, Bethany Presbyterian church; 2:30, musical exercises, Bethany Sunday school; 6, sacred recital, Wanamaker organ.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 11 a. m., Second Presbyterian church; 4, studio concert; 9:30-11, classical concert.

WBAL, Baltimore, Md. (245.8m-1220ke), 7:30-8:30 p. m., WBAL concert orchestra.

WBBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 8-10, Jack Crawford's Alemitte High Pressure orchestra, Howard Osburn's Vanity Fair Cafe orchestra, Pauline Atlas, violinist; Maurice Silverman, tenor; Kay Ronayne, contralto; Hazel McBroom, contralto; Fred L. Jeske, baritone; Florence Sangor, pianist; 12 midnight, The Nutty Club.

WENR, Chicago, Ill. (265.3m-1130ke), 9:15 a. m., services; 2-3 p. m., Skeeles-Biddle hour of better music; 3-4, Moody Bible Institute hour; 6-7, Moody Bible Institute evening hour; 9:30-12, All-American Pioneers.

WGES, Chicago, Ill. (249.9m-1220ke), 10:30 a. m., M. E. church; 11:45, high mass, Our Lady of Sorrows church; 5-7:40 p. m., Casey and Gervais; Sylvia Goldsmith, Joie Walsh, Frank Hayes, Tom Wheeler, Pat Ryan, Esther Richards; Joy Morrison; 11-1 a. m., frolic.

WGHP, Detroit, Mich. (270.1m-1110ke), 11 a. m., Grosse Pointe Memorial church.

WGN, Chicago, Ill. (302.8m-990ke), 6:45-7 p. m., musicale; 7-7:20, Million sing; 7:20-7:30, Old-Fashioned Almanack; 7:30-8, musicale; 8-8:15, Drake concert ensemble, Blackstone string quintet; 8:15-8:45, WEAF; 8:45-9, musical program; 9-10, Our Music room; 10-10:10, Sam N. Henry; 10:10-11, WGN studio ensemble.

WGY, Schenectady, N. Y. (379.5m-790ke), 6 p. m., WJZ; 6:20, Hotel Pennsylvania orchestra; 7, miscellaneous program; 7:30, Hotel Madison orchestra; 8:30, miscellaneous program; 9-9:30, WJZ.

WHAR, Atlantic City, N. J. (275m-1090ke), 10:45 a. m., Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50, evening service; 9, classical program, Seaside hotel ensemble.

WJAZ, Chicago, Ill. (329.5m-910ke), 7-9 p. m., Girvin trio; Clara Haffenberg, soprano; Mae Doelling Schmidt, pianist.

WJJD, Mooseheart, Ill. (370.2m-810ke), 12-1 p. m., Howard L. Peterson, organist; 1:30-3:30, Mooseheart Sunday concert; 2:30-4, Mooseheart Radio Bible class; 3-5:30, Palmer House Sunday symphonic orchestra.

WLIB, Chicago, Ill. (302.8m-990ke), 7:05-7:15 p. m., Liberty studio ensemble; 5:45-6:15, Edward Benedict, organist.

WLS, Chicago, Ill. (344.6m-870ke), 7-8:55 p. m., WLS Little Brown church in the Vale, WLS trio and Sol Heller, baritone.

WLW, Cincinnati, Ohio (422.3m-710ke), 11 a. m., morning worship, Rev. W. E. Roberts, Delta Avenue M. E. church; 7 p. m., organ recital, C. Hugo Grimm; 8, Morning Little symphony orchestra.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon ensemble, vocal artists, sunset musicale; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Billie Ellen Hoff, Vail and Abbott, Harmony duo, Irene and Albert Pat, Hawaiian guitar duo, Joe Parson, baritone; Bob Bennett, piano and celeste novelties.

WOK, Chicago, Ill. (217.3m-1380ke), 6 p. m.-1 a. m., Tip-Top Inn string ensemble concert; Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.

WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., Corduroy Tire Little symphony orchestra; specialty; Corduroy Balloons; 10:05, Van Wyck's instrumental quartet; 11, Wild and Woolly Workers' club.

WQJ, Chicago, Ill. (447.5m-670ke), 3-4 p. m., Sunday afternoon concert hour; song cycle, "Florida," North Shore quartet; 8-10, Rainbo Gardens orchestra; Hen Ginsberg, soprano; Clarence Clausen, baritone; Shepard Levine, tenor; Henrietta Nolan, violinist; other artists.

WREO, Lansing, Mich. (285.5m-1050ke), 10 a. m., chimes, Beiry Plymouth Congregational church; 10:30, services.

WSAI, Cincinnati, Ohio (325.9m-920ke), 11 a. m., church; 7:45 p. m., chimes; 8, sermonette; 8:15, WEAF; 8:45, WEAF.

WSWS, Chicago, Ill. (275m-1090ke), 11 a. m., Moody church; 3:30-5 p. m., popular service, Rev. Philipott; 7-9:30, song service.

WTAM, Cleveland, Ohio (389.4m-770ke), 10:30 a. m., First Methodist church; 7 p. m., Park theater orchestra; 8, twilight musicale.

WWJ, Detroit, Mich. (352.7m-850ke), 10 a. m., First Presbyterian church; 2 p. m., Detroit News orchestra; 6:20, WEAF; 8:15, WEAF.

Central Standard Time Stations

KFNF, Shenandoah, Iowa (263m-1140ke), 8 p. m., Christian church services.

KFRU, Bristow, Okla. (374.8m-800ke), 12:30-7 p. m., pipe organ, band; 7:30-9, worship hour.

KLDS, Independence, Mo. (440.9m-680ke), 6:30 p. m., Radio vesper service; Nina Grenwald Smith, soprano; Lulu Tyrrell, contralto; George Anway, tenor; Frank Russell, bass; sermon; Ralph W. Farrell; 9:15, studio service; Robert Miller, organist; Albert Brackenbury, bass; Vivial Latta, soprano; sermon; Apostle Paul M. Hanson.

KMOX, St. Louis, Mo. (280.2m-1070ke), 8 p. m., KPQA, The Principia; 9, Skouras Brothers Sunday night club.

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 7:30 p. m., Paramount program; Hotsy Totsy hour.

KPRC, Houston, Texas (296.9m-1010ke), 8 p. m., First Methodist church, Rev. A. Frank Smith, pastor; 9:30, Skyline studios band concert; 11, Texas theater pipe organ concert.

KWCR, Cedar Rapids, Iowa (278m-1080ke), 5 p. m., vesper services; 9:30, Sunshine mission.

GERTRUDE O'NEIL GANLEY AT WCCO

Sunday, July 18

WBAP, Fort Worth, Texas (475.9m-630ke), 11 a. m., First Methodist church; 5-6 p. m., musicale; 9:30-11, Sorin-White Top of Texas orchestra.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 10:50 a. m., Westminster Presbyterian church; 4:10 p. m., House of Hope Presbyterian church; 7:15, WBAF; 9:30, Hugo Philler Goodwin, organist.

WDAF, Kansas City, Mo. (365.6m-820ke), 3-4 p. m., classical concert; 4-4:45, vespers.

WCBD, Zion, Ill. (344.6m-870ke), 9 p. m., mixed quartet; trombone quartet; Mr. G. R. Sparrow, tenor; Mrs. G. R. Sparrow, contralto; Erwin Rendall, flutist.

WFAA, Dallas, Texas (475.9m-630ke), 2:30-3 p. m., Farmers' hour; 6-7, Radio Bible class; 8-9, First M. E. church; 11-12, Ligon Smith's orchestra.

WHAS, Louisville, Ky. (399.8m-750ke), 9:57 a. m., organ prelude; 10, Virginia Avenue Methodist church.

WHB, Kansas City, Mo. (365.6m-820ke), 9:40 a. m., Linwood Blvd. Christian church; 11:15, Independence Blvd. Christian church; 8 p. m., evening services; 11:15, Morris Moore, organist; Don Ambers, poet.

WHO, Des Moines, Iowa (526m-570ke), 5-6 p. m., Bankers Life Little symphony orchestra; Myrtle Williams, soprano; 7:30-8:50, Fourteenth Calvary band.

WMC, Memphis, Tenn. (499.7m-600ke), 11 a. m., services, Second Presbyterian church.

WOAI, San Antonio, Texas (394.5m-700ke), 1 a. m., First Presbyterian church; 7:45, Central Christian church.

WOAW, Omaha, Nebr. (526m-570ke), 9 a. m., chapel service; 1:30 p. m., Father Flanagan's boys' home period; 2:30, classical.

WOC, Davenport, Iowa (483.6m-620ke), 1-2 p. m., Palmer Little symphony; 8-8:30, church service; 9:30-10:30, Palmer Little symphony.

WSM, Nashville, Tenn. (282.8m-1060ke), 7:30 p. m., First Presbyterian church.

WSUI, Iowa City, Iowa (483.6m-620k), 9 p. m., familiar hymns.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4m-930ke), 11 a. m., Augustana Lutheran church; 6:30 p. m., KOA choristers; 8, open-air concert, Denver municipal band.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Jim, Jack and Jean trio; 8-9, Aeolian organ; 9-10, Badger's Hollywood Californians; 10-11, Packard Six dance orchestra.

KFWB, Hollywood, Calif. (252m-1190ke), 9-11 p. m., Warner Brothers movie frolic, Len Nash's Town band.

KGO, Oakland, Calif. (361.2m-830ke), 11 a. m., First Congregational church; 4 p. m., vesper; 6:30-7:30, Bem's Little symphony orchestra; 7:45, First Congregational church; 9-10, Bem's Little symphony orchestra.

KGW, Portland, Ore. (491.5m-610ke), 10-25 a. m., church services; 7:30-9, evening service; 9-10, Chevrolet symphony orchestra.

KHJ, Los Angeles, Calif. (405.2m-740ke), 7-8 p. m., First Methodist Episcopal church; 8-10, Orpheus Four male quartet and others.

KJR, Seattle, Wash. (384.4m-780ke), 7:45-8 p. m., Mrs. Montgomery Lynch, organist; 8-9:15, First M. E. church services; 9:15-10:45, Puget Sound Savings & Loan Ass'n orchestra; solos.

KNX, Hollywood, Calif. (336.9m-890ke), 7-8 p. m., Circle theater organ and orchestra; 8-9, First Presbyterian church; 9-10:30, program, Reed Brothers.

KPSN, Pasadena, Calif. (315.6m-950ke), 6:30-7:30 p. m., Maryland artists' ensemble, Henry J. Van Praag, director.

KTAB, Oakland, Calif. (239.9m-1250ke), 9:45 p. m., Bible lecture; 11, service; 7:45, service.

Monday, July 19

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
9 p. m.	8	7	6	5
WOR (405.2m-740ke), Newark Philharmonic band.	8:30	7:30	6:30	5:30
WCOA (222m-1350ke), Venetian trio.	10	9	8	7
WGHF (270.1m-1110ke), T. Stanley Perry, tenor.	10:15	9:15	8:15	7:15
10:15	9:15	8:15	7:15	6:15
KOA (322.4m-930ke), "Border Lines," historical play.	11	10	9	8
11	10	9	8	7
KMA (252m-1190ke), Corey and Carl.	12 m.	11	10	9
KWWG (277.6m-1080ke), Senorita Carlotta Villereal.	12 m.	11	10	9
WCCO (416.4m-720ke), Scandinavian ensemble.				
12 m.	11	10	9	8
WSM (282.8m-1060ke), Vito and his Radio Seven.				

Monday, silent night for: CKAC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRV, CNRW, CNRJ, KLDS, KPSN, KWSC, KYW, WBBM, WCBD, WEBH, WEBJ, WBB, WGBF, WGBS, WGES, WGN, WHAS, WHP, WJZ, WJZ, WJZ, WJZ, WJZ, WJZ, WLS, WMAQ, WMBB, WOAI, WOC, WOK, WORD, WQJ, WRC, WSAI.

Atlantic or Eastern Daylight Saving Time Stations

CKNC, Toronto, Can. (356.9m-840ke), 9 p. m., Eveready orchestra; CKNC male quartet.

WBBR, New York, N. Y. (272.6m-1100ke), 8 p. m., George Twarosch, violinist; Irene Klempner, soprano; 8:20, Bible lecture; 8:40, soprano; 8:50, violinist.

WCAU, Philadelphia, Pa. (277.6m-1080ke), 7:30 p. m., recital, N. Snellenburg and company; 8, Carolyn Thomas, soprano; 8:30, Hood Boys; 8:45, Merry Minstrels; 9:30, Roy Tracy, tenor; 9:45, Chalfant Sisters; 10, Madrigal mixed quartet; 10:30, Eddie Campbell and orchestra.

WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, dinner music; midweek hymn; Meyer Davis' Park Lane orchestra; Goldman band concert; Viola Serey, soprano; grand opera, "L'Elisir d'Amour"; Rolfe's Paris 19, orchestra.

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio; 9, studio concert; 11, Follies Berge dance orchestra.

WHN, New York, N. Y. (361.2m-830ke), 6:30 p. m., WHN movie club; 7:30, Joe Ward's Swanne entertainers; 8, Roseland dance orchestra; 9, Lewitch Three and "Peter the Great"; 9:30, Low's New York theater orchestra; 10, Palisades Amusement park orchestra; 10:30, Leroy Smith's orchestra; 11:30, Club Alabama orchestra; 12, Eddie Edwards' Southerners.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Hotel Madison dinner concert orchestra; 7:55, John B. Kennedy; 8, Maxwell House Coffee ensemble; 11, Harry Leonard's Waldorf-Astoria orchestra.

WLIT, Philadelphia, Pa. (394.5m-760ke), 9 p. m., Stanley hour of music; 10, Arcadia cafe dance orchestra.

WLWL, New York, N. Y. (288.3m-1040ke), 9:15 p. m., songs; 9:45, piano recital; 10:30, ensemble.

WMAK, Buffalo, N. Y. (265.3m-1130ke), 6:15-7:15 p. m., dinner music, Philco Battery serenaders; 7:30-8:15, musicale; 9-10, musicale; 10-11, Beaver Products Co., Inc.

WMCA, New York, N. Y. (340.7m-880ke), 6:30 p. m., Ernie Golden and his Hotel McAlpin orchestra; 9:15, Hardman hour of music; 11, Jack Donny's orchestra; 11:30, Club Brighton orchestra; 12, McAlpin entertainers.

WNYC, New York, N. Y. (526m-570ke), 6 p. m., piano selections; 7:35, songs.

WOO, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Mitz Carlton dance orchestra; 8, address, Rev. Forest Dager; 8:30, organ recital; 9, Sequenticennial program; 10, WEAF; 10:30, Adelphia dance orchestra.

WOR, Newark, N. J. (405.2m-740ke), 6:15 p. m., Jacques



Here is Paul Ash of the Merry Mad gang, haircut and all. Just imagine, Balaban and Katz think so highly of this cut they have made Mr. Ash sign a contract to wear his hair this way. But all this will not interest radio fans who tune in for the famous entertainer and his orchestra at WGN on Friday nights, which all goes to show Mr. Ash would be just as entertaining without any hair. Dorothy Stevens Humphrey, right, might have stepped down from some old-fashioned picture frame to be inserted in our columns. This lovely costume she wore last winter when appearing in an operatic role. Her beautiful voice is often heard from WEAQ, Columbus.



Jacobs ensemble; 7, Jacques Jacobs Hotel Shelton ensemble; 8:30, band; 9:45, Monterey society orchestra; 10:45, Monterey concert orchestra; 11:15, Ben Bernie Berkeley Carteret.

Eastern Standard or Central Daylight Saving Time Stations

WBAL, Baltimore, Md. (245.6m-1220ke), 6:30-7:30 p. m., WBAL dinner orchestra; 7:30-8, WBAL male quartet; 8-9, WBAL trio; 9-10, WBAL dance orchestra.

WGHF, Clearwater, Fla. (265.3m-130ke), 8:30-10 p. m., Caroline Lee, "The Virginia Girl" and her Spanish guitar; Bob Houts, baritone; Eldon McMullen, pianist; Capitol theater orchestra.

WGHF, Detroit, Mich. (270.1m-1110ke), 6 p. m., dinner concert, Hotel Tuller; 8:30, WGHF Harmony Four; 9-10, WGHF ensemble, T. Stanley Perry, tenor; 12-1 a. m., Gerald Marks' orchestra.

WGY, Schenectady, N. Y. (379.5m-790ke), 6:30-7:15 p. m., piano and soprano solos; 7:15-8, agricultural program; 8-8:30, musical program.

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio; 11, Follies Berge dance orchestra.

WJJD, Mooseheart, Ill. (370.2m-810ke), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Compton's "I see by the newspaper" man; Palmer House Victorians.

WLS, Chicago, Ill. (344.6m-870ke), 6:30 p. m., Elsie Mae Look, organist; 6:45-7, Maurie Sherman's College Inn orchestra.

WLW, Cincinnati, Ohio (422.3m-710ke), 7 p. m., Hotel Gibson Florentine room; 7:30, theatrical feature; 7:40, Hotel Gibson; 8, Charleston lessons; 9, Calumet Baking Powder and Rainbo Gardens hour; soloists, Sibyl Heck Linde, contralto; Dorothy Schroeter, accompanist.

WMAQ, Chicago, Ill. (447.5m-670ke), 6 p. m., organ recital; 6:30, Jack Chapman's orchestra.

WREG, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble.

WRVA, Richmond, Va. (256.3m-1170ke), 8:45 p. m., Harmony Boys, Pat Binford, Bright Keck, piano and songs; 9, Virginia folk lore, Dr. Douglas Freeman; 9:10, Harmony Boys; 9:30, "American Music Review" yesterday and today; 10:30, Golden Gate syncopators; 11:30, Carry Me Back to Old Virginia.

WTAM, Cleveland, Ohio (389.4m-770ke), 6 p. m., Hollenden hotel orchestra; 8, studio program; 11, Euclid Beach Park orchestra.

WUTC, Hartford, Conn. (475.9m-630ke), 7:30 p. m., Goldman band concert; 9, Grand Opera hour; 10:05-10:30, Capitol theater organ.

WWJ, Detroit, Mich. (352.7m-850ke), 7:30 p. m., Goldman band concert; 9, Detroit News orchestra.

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040ke), 9 p. m., musical program, Hotel Clarke studio.

KFNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., concert; 8, poultry talk.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Oklahoma's Sweetheart of the Air.

KMA, Shenandoah, Iowa (252m-1100ke), 9-11 p. m., Corey and Carl of Corning, 2-piano recital.

KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinet Jules, organist; 7, KMOX Radio orchestra; Buster's Saxophone quintet; 8, KMOX Radio orchestra; 9, trio of violin, cello, organ; 9:30, Banalogue; 10, operatic presentation.

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 7:30 p. m., Inner Circle candy night; 9, Barnyard twins; 11, Mrs. Patrick Gill, soprano; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., Eddie's syncopators; 8, Dr. Earle J. Shay, tenor; A. M. Martin, pianist; 8:15, dance music.

KWCR, Cedar Rapids, Iowa (276m-1080ke), 9 p. m., musicale.

KWWG, Brownsville, Texas (277.6m-1080ke), 8:30-8:45 p. m., Pelayos Quintano, guitar and Canciones mexicanas; 9-9:30, Senorita Carlotta Villereal, soprano; E. C. Toothman, baritone; 12-1 a. m., novelty and jazz; E. C. Toothman, announcer; Beth Sewell and Florine Pierce, accompanists.

WBAP, Fort Worth, Texas (475.9m-630ke), 7:30-8:30 p. m., Gordon L. Mann, saxophone quintet; 9:30-11, Don Stegall and his band.

WCOA, Pensacola, Fla. (222m-1350ke), 7 p. m., con-

cert, 13th coast artillery band; John E. Frenkel, "Breezy Boy from the Gulf," in fun and song; Signor Matteo Viscuso, accordionist; Venetian trio, string melodies.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 6:15 p. m., St. Paul hotel concert orchestra; Mrs. Clara Olson, soprano; 8, WEAF; 9, Scandinavian ensemble; Victor Brunt, baritone; Paul Oberg, accompanist.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., Harry Frank, organist; 8-9, WEAF; 11:45-1 a. m., Charlie Straight's Brunswick Recording orchestra; Ted Meyn, organist; Earl Coleman's orchestra; Johnnie Campbell's orchestra.

WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Troy Floyd's orchestra; 8:30-9:30, Sears-Roebuck Agricultural Foundation program.

WHB, Kansas City, Mo. (365.6m-820ke), 7-8 p. m., Sweeney Radio orchestra.

WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9, Ruth Conway, soprano; Karl Kilinsky, violinist; Wini-fred Garriss, pianist.

WMC, Memphis, Tenn. (499.7m-600ke), 8:30 p. m., Papalardo Brothers' orchestra.

WOAI, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Sunshine Laundry orchestra.

WOAW, Omaha, Nebr. (526m-570ke), 6 p. m., marimba soloist, Hugo G. Heyn; Emil B. Hofmann, pianist; 6:50, orchestra; 9, classical.

WOS, Jefferson City, Mo. (440.9m-680ke), 8 p. m., Daniel Boone Jones, interstate old fiddling champion.

WSM, Nashville, Tenn. (282.8m-1060ke), 7 p. m., Andres Jackson hotel trio; 8, Leon Frank's advanced piano pupils; 10, Vito and his Radio Seven.

WSUI, Iowa City, Iowa (483.6m-620ke), 8 p. m., musical program.

Mountain Standard Time Stations

KFXF, Colorado Springs, Colo. (250m-1200ke), 9 p. m., Daisy Ann Thompson, mezzo-soprano; Anita Osborne, pianist; Cecil Rodgers, tenor.

KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., Brown Palace string orchestra; 8, Scheuerman's Colorado orchestra; 8:15, "Border Lines," KOA players.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Owen Fallon's Californians; 8-9, semi-classical program; 9-10, program, Walter M. Murphy Motors company, KFO; 10-11, program, Meiklejohn Brothers.

KFWB, Hollywood, Calif. (252m-1190ke), 6-7 p. m., Pontiac Six dinner hour; 7:30-8, program, Dr. Ralph Mitchell and Associated Dentists; 8-9, program, Sealy Mattress company; 9-10, program, American Dye Works; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-830ke), 8 p. m., educational program; Amphion trio.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 8-9, organ recital; 9-10, vaudeville entertainment, Steigerwald Milk Maids, Punch and Judy; 10-12 midnight, Cole McElroy's dance orchestra.

KJR, Seattle, Wash. (384.4m-780ke), 8:30-10 p. m., Post Intelligencer studio program.

KNX, Hollywood, Calif. (336.9m-890ke), 7-7:30 p. m., studio program; 7:30-8, program, Overell's; 8-9, L. W. Stockwell company program; 9-10, Julian Petroleum corp. program; 10-11, M. Weinstein program with Alexandria hotel dance orchestra; 11-12 midnight, Ambassador hotel dance orchestra.

KTAB, Oakland, Calif. (239.9m-1250ke), 8-10 p. m., program.

Tuesday, July 20

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
9 p. m.	8	7	6	5
WGV (379.5m-790ke), Georgia Minstrel Boys.	8:30	7:30	6:30	5:30
WHAS (399.8m-750ke), Carl Zoeller's Melodists.	10	9	8	7
10	9	8	7	6
WCCO (416.4m-720ke), Crinoline trio.	10:30	9:30	8:30	7:30
10:30	9:30	8:30	7:30	6:30
WFAA (475.9m-630ke), Dailey Hembree, tenor.	11	10	9	8
WMO (499.7m-600ke), Tennessee Collegians.	11	10	9	8
WOAI (394.5m-760ke), Gerhardt Mexican players.	12 m.	11	10	9
12 m.	11	10	9	8
WQJ (447.5m-670ke), First National Violin quartet.				
12 m.	11	10	9	8
KMOX (280.2m-1070ke), "Cherry Blossoms."				

Tuesday, silent night for: CFCA, CKNC, CNRC, CNRE, CNRM, CNRO, CNRT, CNRV, CNRW, CNRJ, KFUO, KOA, KOB, KTAB, KWVG, WAHG, WAND, WBBR, WCAP, WCGF, WHAZ, WOR, WOS, WRVA, WSMB, WSUI, WTAM, WVIC.

Atlantic or Eastern Daylight Saving Time Stations

WCAU, Philadelphia, Pa. (277.6m-1080ke), 7:30 p. m., Snellenburg instrumental trio; 8, theater digest; 8:10, Three Brothers; 8:25, Peter Ricci, baritone; 8:45, Higgins and Burke, songs; 9, Kuehne's artists; 9:30, Robert Fraser, blind gospel singer; 10, recital; 10:15, Eddie Malle's entertainers; 10:30, Cathay Tea Garden orchestra.

WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, dinner music; Elsie Harmon, soprano; Rex Beach, author; Gold Dust Twins; Eveready hour; Variety half-hour; Jack Albin and his Hotel Bossert Marine Roof orchestra; Buffalodians.

WBJ, New York, N. Y. (272.6m-1100ke), 7 p. m., Dan Barnett's orchestra; 7:30, Luna's Knickerbocker grill orchestra; 8:15, Jerry Alexander, Kathryn Connolly; 8:30, Luna's Marine band.

WFI, Philadelphia, Pa. (394.5m-760ke), 7:15 p. m., Sesqui talk; 8, WEAF; 10:30, Albin's Bossert orchestra; 11, Buffalodians dance orchestra.

WGS, New York, N. Y. (315.6m-950ke), 6:30 p. m., music; 7, Arrowhead Inn concert orchestra; 8, play, auspices Episcopal Actor's guild; 10:30, Arrowhead Inn dance orchestra.

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio.

WHN, New York, N. Y. (361.2m-830ke), 6:30 p. m., Broadway orchestra; 7:30, Will Oakland's obataca; songs; 8, Treasureland Neighbors; 8:30, Prince Piotta; entertainer; 9:30, Loew's 83rd St. theater orchestra; 10, Universal trio; 11:30, Sophie Tucker's Playground orchestra; 12, Charm club orchestra.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, program, Marine studio; 8:30, Murphy's Minstrels; 9, Chalfante-Haddon Hall trio; 11, Million Dollar Pier dance orchestra; 11:30, Silver Slipper club dance orchestra.

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Frank Dole; 7:20, Harry Leonard's Waldorf-Astoria orchestra; 8, One-up Cut-ups; 8:30, Deltah Pearl hour; WIC; 9, Pennsylvania Keystone; WIC; 10, Cook's Southern Hemisphere Cruise, WRC, WGY; 10:45, George Olsen's Hotel Pennsylvania orchestra.

WLIT, Philadelphia, Pa. (394.5m-760ke), 7:30 p. m., El Patio dance orchestra.

WLWL, New York, N. Y. (288.3m-1040ke), 9:15 p. m., Compinsky brothers; 9:30, Premier male quartet.

WMAK, Buffalo, N. Y. (265.3m-1130ke), 7 p. m., Hofbrau Haus entertainers; 9, Paul Whiteman's Piccadilly players; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, McAlpin entertainers.

WNYC, New York, N. Y. (526m-570ke), 6:35 p. m., piano selections; 7:15, songs.

WOO, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Sequenticennial program.

WOR, Newark, N. J. (405.2m-740ke), 6:15 p. m., Jacques Jacobs Hotel Shelton ensemble; 7, Jacques Jacobs Hotel Shelton ensemble.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 7 p. m., music hour, Chicago Evening American studio; 8, Congress hotel; 9-10:30, classical; 10:30-12 midnight, Carnival.

Tuesday, July 20

WBAL, Baltimore, Md. (245.8m-1220ke), 6:30-7:30 p. m., dinner orchestra; 7:30-8, Howard R. Thatcher, organist; 8-9, Geo. Bolek, pianist; Katharine White-lock, violinist; 9-10, City Park orchestra of Baltimore.

WBEB, Chicago, Ill. (225.3m-1300ke), 5-8 p. m., Eddie Hansen, organist; 8-9:30, Fort Dearborn male choir, Alemtie trio, Jack Crawford's Alemtie High Pressure orchestra, "Hi and Si," Lee Sims, Kay Ronayne, contralto; 9:30-10, Moss Covered melodies; 10-11:30, Lee Sims, Smith & Ford, Alemtie High Pressure Boys, Jack Crawford's Alemtie High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Tom Brown's Sax Sextet; Eunice Hofer, organist; 11:30-12 midnight, Lee Sims, Howard Osburn's Vanity Fair cafe orchestra, Jack Crawford's Alemtie High Pressure orchestra.

WCBD, Zion, Ill. (344.6m-870ke), 9 p. m., Clarinet quartet; R. F. Reid, baritone; Mrs. McErlie, Mrs. L. J. Reed, duets; Mrs. Lucille Bird, soprano; Alice Clark, contralto; William C. Dunn, euphonium duets; Louise Burgess, reader.

WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-9, Arthur Dunas popular program; 9-10, Moody Bible Institute evening hour.

WGES, Chicago, Ill. (249.9m-1200ke), 5-7 p. m., Clarence Theders, Jole Walsh, John McFarlane, Al Bernstein, Peggy and Esther, W. Remington Welch, organ; 8-9, Frank Mayo, Tom Wheeler, Marg, Al Bernstein; 11-1 p. m., frolic.

WGHB, Clearwater, Fla. (265.3m-1130ke), 8:30-10 p. m., Capitol theater orchestra.

WGHP, Detroit, Mich. (270.1m-1110ke), 6 p. m., dinner concert, Hotel Tuller; 8:30-9, Campers' half hour; 9-10, Skylark dance band; Gerald Marks' orchestra.

WGN, Chicago, Ill. (302.6m-990ke), 6:45-7 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WEAJ; 10-10:10, Sam 'n' Henry; 10:10-10:20, Music Box; 10:20-11, WGN studio ensemble.

WGY, Schenectady, N. Y. (379.5m-790ke), 6:45-7:30 p. m., musical program, WGY studio; 7:30-8, WJZ; 8-9, Georgia Boy minstrel show; 9-9:30, WJZ.

WHAF, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio.

WIAZ, Chicago, Ill. (329.5m-910ke), 9-12 midnight, William Hayden, tenor; Francis Rosemary Scheib, soprano; Henrietta Nolan, violinist; Chez Pierre Hawaiian quartet; The Quips that Pass in the Night.

WJJD, Mooseheart, Ill. (370.2m-810ke), 4:45-7 p. m., Howard K. Peterson, organist; Palmer House symphony phony players; Compton's "I see by the newspaper" man; Palmer House Victorians; 7-9, music by children of all ages; solos, bands, etc.; 9-11, Palmer House Victorians; Clarence Harper; 11:30-12:30 a. m., Settlin' Up Hour.

WLIB, Chicago, Ill. (302.8m-990ke), 7:15-7:30 p. m., Drake concert ensemble; 7:30-8, WEAJ; 9-10, 10:10-11, 11:20-1 a. m., Charles E. Erbstein and Fred Hamm's orchestra.

WLS, Chicago, Ill. (344.6m-870ke), 6:30 p. m., Elsie Mae Loek, organist; 6:45, Maurice Sherman's College Inn orchestra; 7, Lullaby time, Elsie and Ralph; 7:15, University of Chicago, readings; 7:30, Al Melgard, organist; 8:10, Maurice Sherman's College Inn orchestra.

WLW, Cincinnati, Ohio (422.3m-710ke), 7 p. m., organ recital, Johanna Grosse; 7:30, Castle Farm dance music; 8:15, Johanna Grosse; 9, Formica symphony orchestra.

WMAQ, Chicago, Ill. (447.5m-670ke), 6 p. m., Chicago theater organ recital; 6:30, Jack Chapman's orchestra; 8, Lewis Blackman, violinist; 9-9:30, orchestra.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon ensemble; Elizabeth Roehk, cellist; Margaret Conrad, violinist; Preston Graves, pianist; Genevieve Burnham, John Stamford; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Trianon ensemble, WMBB male trio, Mable Bagley, contralto; Little Joe Warner.

WOK, Chicago, Ill. (217.3m-1380ke), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.

WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., "Ye Old Time Songs," Roy Clark, Sally Simpkins, Jim Forshey, Mae Gamble, Claude Lee, Beth Garrison, Van Wyck's instrumental quartet; 9:30, Regent Grand orchestra; 9:45, Melissa Dvorak, pianist; 10:05, studio program.

WQJ, Chicago, Ill. (447.5m-670ke), 7-8 p. m., Rainbo Gardens orchestra; Leon Miller, violinist; Milton Shuman, accompanist; Lillian Roy, contralto; soprano; Clarence Clausen, baritone; 10-2 a. m., First National violin quartet; Bert Davis; O'Tlanagan and O'Hara, Two Frenchmen; Nubs Allen.

WRC, Washington, D. C. (468.5m-640ke), 7 p. m., Willard hotel orchestra; 7:30, WJZ; 8, announced; 9, WJZ; 9:30, announced; 10:30, Manger Davis' Le Paradis band.

WREO, Lansing, Mich. (256.3m-1050ke), 8-9 p. m., dinner hour concert; 8:15, Rego Motor Car company band.

WSAI, Cincinnati, Ohio (325.9m-920ke), 7:30 p. m., musicale; 8, WEAJ; 9, musicale.

WSWS, Chicago, Ill. (275m-1090ke), 6 p. m., William Dyckman, bass; Terrace Gardens orchestra; Leola Alkman, songs; John Clark, baritone; Georgia Gray, violinist; 8, orchestra; Jean E. Amy, Christine A. Grimm, Walter Lewis, Eulalia Kober; Delores Dizanando; 10, quintet; Matthews Sisters; Georgia Gray, violinist; 12 midnight, Henri Therrien, Gus Edwards' orchestra.

WTAM, Cleveland, Ohio (389.4m-770ke), 6 p. m., State theater vaudeville; 7, WEAJ; 10, studio program; 11, Euclid Beach Park orchestra.

WWJ, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; 7, WEAJ.

Central Standard Time Stations

KFNH, Shenandoah, Iowa (263m-1140ke), 7 p. m., James E. Lary.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Catfish string band.

KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., studio recital, auspices Independence Music club.

KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., May's Mandolin musicians.

KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquot, organist; 7, KMOX Radio orchestra; 8, banjo players; 9, Helen Jane Fritz, reader; 9:30, Alma Rotter, J. L. Bischof, Bert Williams of the Air; 10, "Cherry Blossoms."

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 6:03 p. m., John A. Gentleman music hour; 7:30, Lyric serenaders; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., dance music; 8:30, artists' concert.

WBAP, Fort Worth, Texas (475.9m-630ke), 7:30-8:30 p. m., Clyde Massengale, baritone; Florence Massengale, pianist; 9:30-11, H. D. Guelick and entertainers.

WGCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 6:50 p. m., WEAJ; 8, Crindling trio; Ramona Gerhardt, pianist; Geraldine Gerhard, violinist; Sylvester Cargill, marimba soloist.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., Billy Adair's orchestra; 11:45-1 a. m., Charlie Straight's orchestra; Billy Adair's orchestra; Johnnie Campbell's orchestra; Earl Coleman's orchestra; Harry Frank, organist.

WFAX, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Honey Boys orchestra; 8:30-9:30, Dailey Hembree, tenor; 11:2, Jimmy Joy's orchestra.

WGBF, Evansville, Ind. (236m-1270ke), 7 p. m., musical program; 8, classical hour.

WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., Carl Zoeller's melodists.

WHB, Kansas City, Mo. (365.6m-820ke), 7-7:30 p. m., organ concert; 8-8:15, Mono Motor Oil Twins.

WHOC, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9, Bankers Life trio.

WMC, Memphis, Tenn. (499.7m-600ke), 8:30 p. m., Tennessee Collegians; 11, Britling's cafeteria orchestra.

WOAL, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Cahabart Mexican players.

WOAW, Omaha, Neb. (526m-570ke), 6:20 p. m., popular song period, Lillian Madson; 6:50, orchestra; 9, program, George H. Lee company.

WOC, Davenport, Iowa (483.6m-620ke), 6-8 p. m., WEAJ; 8, program, Davenport Industrial commission.

WSM, Nashville, Tenn. (282.8m-1060ke), 8 p. m., C. Roland Flick, violinist; Mrs. C. Roland Flick, pianist; May Bird Hines, soprano.

Mountain Standard Time Stations

KFXF, Colorado Springs, Colo. (250m-1200ke), 7:30 p. m., R. Gratz Cox, tenor voice; lesson; 8, Paul Antler; 10-11:30, Bertram T. Wheatley, concert organist.

KOA, Denver, Colo. (322.4m-830ke), 6:30 p. m., Brown Palace string orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Virginia ballroom orchestra; 8-9, Screen Artists string quartet; 9-10, Ernest R. Ball, composer and others; 10-11, Packard Radio club.

KFWB, Hollywood, Calif. (252m-1190ke), 7-7:30 p. m., program, Morris & Company; 7:30-8, program, White Auto company; 8-9, Bill Hatch's orchestra; 9-10, program, American Brake Testing Machine company; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-830ke), 8-9 p. m., Eveready program, Valencia orchestra; Harrison L. Coles, tenor; G. Franklin Roberts, baritone; 9-10, Pilgrim's hour, Don Lee Cadillac company.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., Skagga United artists; 8-10, educational program; 10-12 midnight, Herman Kenin's dance orchestra; Curt Kramer, pianist.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:30 p. m., Weekly visit of Queen Titania, Sandman from Fairyland; 7:40, talk on dogs; 8-10, Power studio musical program; 10-11, Southern Serenaders' dance orchestra.

KJR, Seattle, Wash. (384.4m-780ke), 8:30-10 p. m., Puget Sound Savings and Loan Ass'n orchestra; 10-11, Nute Motor company studio program.

KNX, Hollywood, Calif. (336.9m-890ke), 7-7:45 p. m., program, Geo. E. Read, Inc.; 8-9, Builder's Finance company program; 9-10, Western Auto Supply company program; 10-12, movie night, Ambassador, Ray West's Coconut Grove dance orchestra.

KPSN, Pasadena, Calif. (315.6m-950ke), 8-9 p. m., Star-News ensemble, Henri J. van Praag, director; George Frenger, tenor.

KTAB, Oakland, Calif. (239.9m-1250ke), 8-10 p. m., classical program.

Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Hotel Madison concert orchestra; 8, Imperial Imps; 8:30, Stadium Philharmonic concert, WRC; 10:30, Hotel Astor Roof orchestra.

WLIT, Philadelphia, Pa. (394.5m-760ke), 8 p. m., recital; 8:30, Progress Paint company concert; 10, Arcadia cafe dance orchestra.

WLWL, New York, N. Y. (289.3m-1040ke), 8:30 p. m., Heartside Harmonizers of Lucerne; 9, to be announced; 9:45, ensemble; 10:15, songs.

WMAK, Buffalo, N. Y. (265.3m-1130ke), 6:30-7:15 p. m., dinner music, Hotel Lafayette orchestra; 7:30-8:15, musical program, Eastman theater orchestra.

WMOA, New York, N. Y. (340.7m-880ke), 6:30 p. m., Ernie Golden and his Hotel McAlpin orchestra; 7:30, Tappen's orchestra; 8, Burns' entertainers; 8:30, Meister Homesteaders; 11, Jack Denny's orchestra; 11:30, Club Brighton orchestra; 12, McAlpin entertainers.

WNYC, New York, N. Y. (526m-570ke), 6 p. m., piano selections.

WOO, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Sylvania dance orchestra; 8, WEAJ; 10, Fox theater program; 10:30, Ritz Carlton dance orchestra.

WOR, Newark, N. J. (405.2m-740ke), 9 p. m., Pryor's band; 10, Monterey society orchestra; 10:45, Monterey concert orchestra; 11:15, Ben Bernie Berkeley Carteret grill.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 6:30 p. m., Joska DeBary and his orchestra; Bittie-Benson orchestra; 7, American hour; 9:10-10:30, classical concert, Commonwealth Edison company; 10:30-12 midnight, Congress carnival.

WBBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 9-10, Jack Crawford's Alemtie High Pressure orchestra, "Hi and Si," Kay Ronayne, contralto; Frank Porter, tenor; Lee Sims, Smith and Ford, Alemtie High Pressure Boys, Florence Sangor, pianist; 12 midnight, The Nutty club.

WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers; 12-2 a. m., All-American Pioneers.

WGES, Chicago, Ill. (249.9m-1200ke), 5-7 p. m., tea music; 8-9, Frank Sylvano; Louis Panico, Guyon's

Top Inn string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.

WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., Willard Battery hour, "16 fingered Paul," Moke Martin, Helen Neuman, Jim Forshey, Ruth Glaser, Pearl Knudson, Sid Goldman, Ramona Gardens orchestra, Minnie DuBey Johnson, Marian Cusser, Van Wyck's instrumental quartet, Herman "Bill" Nyhoff; 10:05, Paul Esago, studio artists.

WQJ, Chicago, Ill. (447.5m-670ke), 7-8 p. m., Rainbo Gardens orchestra; Merrie Boyd Mitchell, soprano; James Mitchell, baritone; 10-2 a. m., Joe Warner, character songs; First National violin quartet; Flo and Ray; T. N. Coffey, tenor.

WREO, Lansing, Mich. (256.3m-1050ke), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders.

WRVA, Richmond, Va. (256.3m-1170ke), 8:45 p. m., special musical features; 9:15, musical program; 10, organ recital, Robert J. Beades, assisting soloists; 11, Carry Me Back to Old Virginia.

WSAI, Cincinnati, Ohio (325.9m-920ke), 6:45 p. m., chimes; 7, WEAJ; 7:30, WEAJ; 10, Congress Playing Card string quartet.

WSWS, Chicago, Ill. (275m-1090ke), 8 p. m., Terrace Gardens orchestra; John A. McFarland, Peter Grosso, John Clark, baritone; Agnes G. Carlson, contralto; 10, Terrace Gardens quintet; Paul Davis, Dave Darcie, Georgia Gray, Jack Goodwin, Kenneth Clark, Hawaiian guitarists; 12 midnight, waltzing hour, Henri Therrien, tenor; Gus Edwards' orchestra.

WTAM, Cleveland, Ohio (389.4m-770ke), 6:15 p. m., Hotel Cleveland orchestra; 8, Public auditorium program.

WTIC, Hartford, Conn. (475.9m-630ke), 7:30 p. m., Capitol theater orchestra; 8, Travelers Jongleurs and "Unknown Troubadour"; 9, Carroll's Palais Royal dance orchestra.

WJL, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; 7, WEAJ; 7:30, Detroit News orchestra; 8, dance program; 9, Detroit News orchestra.

Central Standard Time Stations

CNRW, Winnipeg, Canada (384.4m-780ke), 9:10 p. m., Fort Gary hotel trio; John Garrick, baritone; Kathleen Daly, soprano; Frank Redlich, cellist.

KFAF, Shenandoah, Iowa (263m-1140ke), 7 p. m., concert, Henry Field Seafood company.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Radio trio, Mascho, Cunningham, Mascho.

KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., musical de luxe program.

KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquot, organist; 7:30, KMOX Radio orchestra; 8:30-9:30, KMOX Radio orchestra; 9:30-11:30, "Ghost of Gerry Bundler," KMOX staff; trumpet flourish.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., dance music; 8:30, Richard Shannon, xylophonist.

KWCR, Cedar Rapids, Iowa (278m-1080ke), 9 p. m., recital.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 6 p. m., WEAJ; 7, WEAJ; 8, Faith Lutheran church; 9, Bellson banjo quartet; Gertrude Armstrongs, soprano.

WCOA, Pensacola, Fla. (222m-1350ke), 7 p. m., Johnnie Klumpker, popular ditties; Mrs. Pauline Whitwell, piano escapade; Max J. Heinsberg, violinist; Mrs. W. R. Helie, vocalist; R. C. Dinsmore, cellist; instrumental trio.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., Charlie Straight's Brunswick Recording orchestra; 8-9, popular musicale; 9-10, classical program; 11:45-1 a. m., WDAF's Plantation Grill studio.

WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., concert, Augustus M. Freed Weis.

WHB, Kansas City, Mo. (365.6m-820ke), 7-8 p. m., Mono Motor Oil twins.

WHO, Des Moines, Iowa (526m-570ke), 6-7 p. m., Bankers Life Little symphony orchestra; Stewart Watson, baritone; 7-8, Philbreck and his Younker tea-room orchestra; 8-9, Kate Miller, whistler; Marie Hughes, accompanist; Ray Harrison, song soloist; Jean Hines, pianist; 9-11, dance program.

WOAI, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Army night, Fort Sam Houston.

WOC, Davenport, Iowa (483.6m-620ke), 6-6:30 p. m., WEAJ; 7:30, WEAJ; 9:30-10:30, Erwin Swindell, organist.

WOS, Jefferson City, Mo. (440.9m-680ke), 8:15 p. m., marimba solos, the Gondoliers.

WSM, Nashville, Tenn. (282.8m-1060ke), 7 p. m., Andrew Jackson hotel trio; 8, Mrs. Eva Thompson Jones, contralto; Mrs. William Dumm, Jr., soprano; Eleanor Horn, pianist; 10, studio program.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4m-830ke), 6:30 p. m., Brown Palace string orchestra; 8, Scheuerman's Colorado orchestra; 8:15, Rocky Mountain News, Denver Times.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-7:30 p. m., popular program; 8-9, program, California Petroleum Corp.; 9-10, popular program; 10-11, Charles Beauchamp, tenor and others.

KFWB, Hollywood, Calif. (252m-1190ke), 7:30-8 p. m., program, Corduroy Tire Stores, Inc.; 8-9, program, A. V. Showell Corp.; 9-10, varied program; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-830ke), 8-8:55 p. m., Ben's Little symphony orchestra; 8-12 midnight, Lions' clubs; Illinois and Indiana night.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 8-9, Western Auto Supply company; 9-10, musical entertainment.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:30 p. m., Uncle Sam and the children; 7:40, talk on astronomy; 8-10, Times presentation.

KJR, Seattle, Wash. (384.4m-780ke), 7:30-8:30 p. m., Arcweld Mfg. Co., studio program; 10-11, Olympic Calpet Ref. company, studio program.

KNX, Hollywood, Calif. (336.9m-890ke), 7-8 p. m., studio program; 8-9, Stewart Warner dealers program; 9-10, Palisades Amusement park orchestra; 10-11, Edgewater club; 11-12, Ambassador hotel dance orchestra.

Thursday, July 22

Headliners Today

Atlantic 9 p.m.	Eastern 9 p.m.	Central 7 p.m.	Mountain 6 p.m.	Pacific 5 p.m.
CNRW (410.7m-730ke), Markowski trio.				
WHB (365.6m-820ke), Mono Motor Oil Twins.				
WFAA (475.9m-630ke), Wednesday Morning Choral club.				
WRC (468.5m-640ke), WRC players.				
WJJD (370.2m-810ke), Palmer House Victorians.				
WSWS (275.1m-1090ke), "On the Road to Mandalay," John Clark production.				
11:15	10:15	9:15	8:15	7:15
WGJ (447.5m-670ke), Two Frenchmen.				
11:20	10:20	9:20	8:20	7:20
KWVG (277.6m-1080ke), George Desha, ukulele soloist.				
12 m.	11	10	9	8
WGHP (270.1m-1110ke), Marvella Payette, soprano.				
1 a. m.	12 m.	11	10	9
KFXF (250m-1200ke), Irish Melody Boys.				

For stations silent tonight refer to first Thursday's list.

Atlantic or Eastern Daylight Saving Time Stations

CKNC, Toronto, Can. (356.9m-840ke), 8 p. m., Charles E. Bodley and his dance orchestra; Elsie Addison, contralto; Arthur Bailey, tenor.

CNRN, Montreal, Canada (410.7m-730ke), 9 p. m., Markowski trio.

WBRR, New York, N. Y. (272.6m-1100ke), 8 p. m., Watchtower instrumental trio; L. Marion Brown, soprano; Bible lecture.

WCAU, Philadelphia, Pa. (277.6m-1080ke), 6:30 p. m., Cadby Tea Garden orchestra; 7:30, Shenelburg instrumental trio; 8, Sadler's Plantation Serenaders; 8:30, Clifford's Anglers; 9, Barry O'Moore, tenor; 9:45, Professor Doolittle; 10, recital; 10:15, Frank Worthington, baritone; 10:30, Eddie Campbell's orchestra; 11, Club Cadix revue.

WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, dinner music; midweek symphony; Meyer Davis' Park Lane orchestra; Serenaders; Hires Voyagers; Clie-

Wednesday, July 21

Headliners Today

Atlantic 7:30 p.m.	Eastern 6:30	Central 5:30	Mountain 4:30	Pacific 3:30
WJZ (454.3m-660ke), New York Philharmonic.				

FARMERS' PROGRAMS INDEX

Farmer Dinner Concerts

Daily Except Sunday CENTRAL TIME

KFNH, 12:15-1:35 p. m.
KMA, 11:30-12:30
KSO, 12:30-1:30 p. m.

Sunday

Atlantic 4:30 p.m.	Eastern 3:30	Central 2:30	Mountain 1:30	Pacific 12:30
WFAA (475.9m-630ke), Sunday hour for farmers.				

Monday

Atlantic 12 n.	Eastern 11	Central 10	Mountain 9	Pacific 8
KMMJ (228.9m-1310ke), Poultry talks.				
2:30 p. m.	1:30	12:30	11:30	10:30
KMA (241.8m-1240ke), Farm talk, Agricultural aid.				
WMAQ (447.5m-670ke), Prairie Farmer farm talks.				
8:15	7:15	6:15	5:15	4:15
WGJ (379.5m-790ke), Agricultural program.				
8:45	7:45	6:45	5:45	4:45
WSM (282.8m-1060ke), Poultry talks.				
9	8	7	6	5
WOS (440.9m-680ke), Livestock questions and answers.				
9:30	8:30	7:30	6:30	5:30
WMC (499.7m-600ke), Farm talk.				
WOI (270m-1110ke), Horticultural Short Course lecture.				
9:45	8:45	7:45	6:45	5:45
WCCO (416.4m-720ke), Farm lecture.				
KFNH (263m-1140ke), Poultry talk.				
10:30	9:30	8:30	7:30	6:30
WFAA (475.9m-630ke), Sears-Roebuck program.				
12:05a. m.	11:05	10:05	9:05	8:05
KGO (361.2m-830ke), Agricultural Outlook.				

Tuesday

Atlantic 12 n.	Eastern 11	Central 10	Mountain 9	Pacific 8
KMMJ (228.9m-1310ke), Poultry talks.				
2:30	1:30	12:30	11:30	10:30
KMA (241.8m-1240ke), Agricultural aid.				
WMAQ (447.5m-670ke), Prairie Farmer farm talks.				
2:45	1:45	12:45	11:45	10:45
WOI (270m-1110ke), "Animal Husbandry."				
9:33	8:33	7:33	6:33	5:33
KYW (535.4m-560ke), American Farm Bureau Federation.				
10:30	9:30	8:30	7:30	6:30
KOA (

Thursday, July 22

quot Club Eskimos; Silvertown Cord orchestra; Buffalodians.
WFI, Philadelphia, Pa. (394.5m-760ke), 7:15 p. m., Keystone Auto club feature; 8:15, WEAF.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 6:30 p. m., dinner concert, Congress hotel; 8-9, "Twenty Minutes of Good Reading"; 9-10:30, classical program; 10:30-12 midnight, Congress Carnival.

Central Standard Time Stations

CNRW, Winnipeg, Can. (384.4m-780ke), 9:10 p. m., Port Gary hotel trio; Frank Redlich, cellist; Linton R. Kent, tenor; W. N. Bruce; Emile Mignacca, violinist.

Friday, July 23

Headliners Today

Table with 5 columns: Atlantic, Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Friday, July 23.

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., surprise program.
KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., KLDS male quartet.



Madame Schumann-Heink recently discovered a talented young singer among the Russian refugees to this country. Olga Steffani, this protege of the great singer, has a beautiful contralto voice which may be heard by tuning in for KFII, Los Angeles.

WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Jimmy Joy's orchestra; 8:30-9:30, Wednesday Morning choral club.

Mountain Standard Time Stations

CNRC, Calgary, Canada (435.8m-688ke), 9 p. m., Little symphony orchestra; Gladys Webb Foster, violinist.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Duncanson Sisters from Topsy and Eva; 8-9, Robert Hurd, tenor and others; 9-10, semi-classical hour; 10-11, Patrick-Marsh dance orchestra; Betty Patrick, soloist.

Table with 5 columns: 10:30, 9:30, 8:30, 7:30, 6:30. Lists radio stations and their programs for Friday, July 23.

For stations silent tonight refer to first Friday's list.

Atlantic or Eastern Daylight Saving Time Stations

CNRA, Moncton, Canada (322.4m-930ke), 9 p. m., CNRA orchestra; Mrs. George B. Gay, soprano.
WCAU, Philadelphia, Pa. (277.6m-1080ke), 6:45 p. m., Hotel Pennsylvania orchestra; 7:30, instrumental trio; 8, Jackson's Whippers; 8:30, The Singing Grounds; 8:45, Dwight Strickland, "poetician"; 9, Regina Crothers; 9:15, Nascio Jolly Four; 9:45, Jack and Jill songs; 10, recital; 10:15, songs; 10:30, Myers' Musical Architects.

WOO, Philadelphia, Pa. (508.2m-590ke), 8 p. m., WOO orchestra; 9, WEAF; 9:35, Fox theater program; 10, WEAF; 11, Sylvania dance orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 8 p. m., Federal Master artists; 10:30-12 midnight, Congress carnival.
WBA, Baltimore, Md. (245.8m-1220ke), 6:30-7:30 p. m., dinner orchestra; 7:30-8, Howard R. Thatcher, organist; 8-9, instrumental and vocal soloists; 9-10, municipal band of Baltimore.

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040ke), 7 p. m., songs, "The Lazy Farmer"; 9, musical program, auspices Hastings College conservatory.
KFMB, Shenandoah, Iowa (238m-140ke), 7 p. m., Sunday school lesson; 7:30, Life Corbin.

Friday, July 23

Mountain Standard Time Stations
KXFX, Colorado Springs, Colo. (250m-1200ke), 8 p. m., Memory Lane orchestra.
KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., Brown Palace string orchestra; 8, open-air concert, Denver municipal band.

Saturday, July 24

Headliners Today
Atlantic Eastern Central Mountain Pacific
7:25 p. m. 6:25 5:25 4:25 3:25
WJZ (454.3m-660ke), WJZ (468.5m-640ke), WGY (379.5m-790ke), New York Philharmonic.

For stations silent tonight refer to first Saturday's list.

Atlantic or Eastern Daylight Saving Time Stations

CFCA, Toronto, Can. (356.9m-840ke), 9 p. m., CFCA's summer orchestra.
WBB, New York, N. Y. (272.6m-1100ke), 8 p. m., Dr. Hans Haeg, violinist; Fred Twarog, tenor.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 7 p. m., music hour; 8, KYW's Congress hotel studio; 9-10:30, classical concert; 10:30-12 midnight, Congress carnival; Benson orchestra.
WBBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 8-9:30, Pullman Porters' quartet, Lee Sims, Eunice Hofer, organist; 9:11, 'The Aleutian string trio, Fred L. Jeske, baritone; Kay Konayne, contralto; 9:30-10, Moss Covered melodies; 10-11:30, Fred L. Jeske, baritone; Florence Sangor, pianist; Smith and Ford, Aleutian high pressure orchestra; Howard Osburn's Vanity Fair cafe orchestra, Eunice Hofer, organist; Lee Sims; 11-12 a. m., Pullman Porters' quartet; Jack Crawford's Aleutian high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, WBBM staff artists.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trio-ensemble, Elizabeth Rechk, cellist; Margaret Conrad, violinist; Preston Graves, pianist; Frank Bordner, baritone.
WOK, Chicago, Ill. (217.3m-1380ke), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra, Midway Gardens orchestra; Pershing Palace orchestra, Katz and his Kittens' orchestra; Capitol theater program.
WOOD, Grand Rapids, Mich. (241.2m-1240ke), 9 p. m., Elizabeth Barker Van Campen hour of music; 10:05, studio program, Bob, Hazel McOsker, Freddie Gleason, Thelma Dykman, Louis Cunningham, Dodo and Mom, Van Wyck's instrumental quartet, Ramona Gardens orchestra.

GENERAL TALKS AND SPEECHES

Thursday, July 15
Atlantic Eastern Central Mountain Pacific
7:30 p. m. 6:30 5:30 4:30 3:30
WGY (379.5m-790ke), Book talk.
WJZ (454.3m-660ke), Motion picture.

Friday, July 16
Atlantic Eastern Central Mountain Pacific
8 p. m. 7 6 5 4
WOWA (526m-570ke), Music review, Hester Bronson Copper.
WJZ (454.3m-660ke), Christian Science lecture.

Saturday, July 17
Atlantic Eastern Central Mountain Pacific
10 p. m. 9 8 7 6
WGBS (316m-950ke), "Famous Women in History," Alexander Kaddison.

Monday, July 19
Atlantic Eastern Central Mountain Pacific
7:30 p. m. 6:30 5:30 4:30 3:30
WJAR (275m-1090ke), Book review, Edna Miriam Hoopes.
WJZ (454.3m-660ke), "Our Country's Present," Rev. Theobald Iben.

Tuesday, July 20
Atlantic Eastern Central Mountain Pacific
7:30 p. m. 6:30 5:30 4:30 3:30
WGY (379.5m-790ke), "Plant and Animal Life in the Sargasso Sea."
WJAR (275m-1090ke), "Glimpses through the Stage Door," Mort Eiseman.

Wednesday, July 21
Atlantic Eastern Central Mountain Pacific
8:30 p. m. 7:30 6:30 5:30 4:30
WLW (422.3m-710ke), "Vacation Trips for Ohio Farmers," A. R. Weed.
WKRC (422.3m-710ke), Book talk.

Thursday, July 22
Atlantic Eastern Central Mountain Pacific
9:45 p. m. 8:45 7:45 6:45 5:45
WRVA (256.3m-1170ke), Safety talk, Leonard F. Herold.

Central Standard Time Stations

KFNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., open, 11, old-time music.
KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Marshall Van Pool and his Radio KVOO orchestra.
KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., studio program arranged by Norma Troje Miller, violinist.
KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., Ye Olde Tyne Gang songs; Willy Cunningham the farmer Scotchman.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinet Jules, organist; 7, Little Red Schoolhouse; 8, KMOX Radio orchestra; Porter Brown; 9, C. L. Weatherax, baritone; 9:30, Jacquinet Jules, organist; Alice Maslin, pianist; 10, KMOX Radio orchestra.

period; 6:50, orchestra; 7:30, Creighton educational period; 9, classical; 10, Elks club.
WOC, Davenport, Iowa (483.6m-620ke), 9-10 p. m., old fiddlers program.
WSM, Nashville, Tenn. (282.8m-1060ke), 7 p. m., Andrew Jackson hotel trio; 8, popular and barn dance program.
Mountain Standard Time Stations
KXFX, Colorado Springs, Colo. (250m-1200ke), 9 p. m., Sells-McClusky first orchestra.
Pacific Standard Time Stations
KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Knights of the Knots; 8-9, Angelus string trio; 9-10, program arranged by Robert Hurd; 10-11, Packard Radio club; 11-2 a. m., KFI midnight frolic.
KFWB, Hollywood, Calif. (252m-1190ke), 6-7 p. m., Pontiac Six dinner hour; 8-10, Bill Hatch and his Oakmont Country club orchestra; 10-11, Warner Brothers frolic.

Friday, July 23

Atlantic Eastern Central Mountain Pacific
8 p. m. 7 6 5 4
WOWA (526m-570ke), Music review, Hester Bronson Copper.
WJZ (454.3m-660ke), "Condition of Missouri Roads," O. I. Steele.

Monday, July 26
Atlantic Eastern Central Mountain Pacific
8 p. m. 7 6 5 4
WOR (405.3m-740ke), Current Events, H. V. Kaltenborn.
WJZ (454.3m-660ke), Talk on eyes, Dr. Kaufman.

Tuesday, July 27
Atlantic Eastern Central Mountain Pacific
7:30 p. m. 6:30 5:30 4:30 3:30
WGY (379.5m-790ke), "The May Flies," "Dance of Death."

Wednesday, July 28
Atlantic Eastern Central Mountain Pacific
7 p. m. 6 5 4 3
WTAG (267.7m-1120ke), Book talk, Robert K. Shaw.
KFKX (288.3m-1040ke), "Doings in Washington," Congressman Robert G. Simmons.

Thursday, July 29
Atlantic Eastern Central Mountain Pacific
7:30 p. m. 6:30 5:30 4:30 3:30
WGY (379.5m-790ke), Book talk.
WJZ (454.3m-660ke), Motion picture.

Friday, July 30
Atlantic Eastern Central Mountain Pacific
8 p. m. 7 6 5 4
WOWA (526m-570ke), Music review, Hester Bronson Copper.

Sunday, July 25

Headliners Today
Atlantic Eastern Central Mountain Pacific
8:30 p. m. 7:30 6:30 5:30 4:30
WCAU (277.6m-1080ke), Bonwit Teller ensemble.

Atlantic or Eastern Daylight Saving Time Stations

CFCA, Toronto, Can. (356.9m-840ke), 11 a. m., Timothy Eaton Memorial church; 7 p. m., St. Paul's Anglican church; 9:30, musical.
WBB, New York, N. Y. (272.6m-1100ke), 10 a. m., Watchtower instrumental trio; Bible lecture, Judge Rutherford; 2 p. m., choral singers; 9, Watchtower string quartet; 9:20, Bible questions and answers, Judge Rutherford.
WCAU, Philadelphia, Pa. (277.6m-1080ke), 11 a. m., First Unitarian church services; 5 p. m., recital; 5:15, Undenominational church services; 5:25, sermon, Rev. John W. Stockwell; 6:45, Hotel Pennsylvania orchestra; 7:45, Cathay orchestra; 8:30, Bonwit Teller ensemble.

string quartet; 9:20, Bible questions and answers, Judge Rutherford.
WCAU, Philadelphia, Pa. (277.6m-1080ke), 11 a. m., First Unitarian church services; 5 p. m., recital; 5:15, Undenominational church services; 5:25, sermon, Rev. John W. Stockwell; 6:45, Hotel Pennsylvania orchestra; 7:45, Cathay orchestra; 8:30, Bonwit Teller ensemble.
WEAF, New York, N. Y. (491.5m-610ke), 7:20 p. m., Capitol Theater Family, WEEL, KSD, WCAP, WWJ, WJAB, WCAE, 9:15, Atwater Kent Radio program, WBEI, WGB, WCAP, WWJ, WSAI, WGN, WCO, KSD; 9:45-10:15, Goldman band concert, WEEL, WJAB, WTAG, WCSH, WSAI.
WHAR, Atlantic City, N. J. (275m-1090ke), 10:45 a. m., Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50, Chelsea Baptist church; 9, Seaside hotel ensemble.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 11 a. m., Second Presbyterian church; 4, studio concert; 9:30-11, classical concert.
WBAL, Baltimore, Md. (245.8m-1220ke), 7:30-8:30 p. m., WBAL concert orchestra.
WBBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 8-10, Jack Crawford's Aleutian high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Pauline Atlass, violinist; Maurice Silverman, tenor; Kay Konayne, contralto; Hazel McBroom, contralto; Fred L. Jeske, baritone; Florence Sangor, pianist; 12 midnight, 'The Nutty Club.
WENR, Chicago, Ill. (265.3m-1130ke), 9:15 a. m., services; 2-3 p. m., Skeegles-Biddle hour of better music; 3-4, Moody Bible Institute; 6-7, Moody Bible Institute evening hour; 9:30-12, All-American Pioneers.
WGES, Chicago, Ill. (249.9m-1200ke), 10:30 a. m., Austin M. E. church; 11:45, high mass; 5-7:40, afternoon musicale; 11-1 a. m., Ray Hibbler, Lew Butler, Marg. Van, organ, orchestra.
WHP, Detroit, Mich. (270.1m-1110ke), 11 a. m., Grosse Pointe Memorial church.
WGN, Chicago, Ill. (302.8m-990ke), 6:45-7 p. m., musical; 7-7:30, Million sing; 7:30-7:30, Old-Fashioned Almanack; 7:30-8, musicale; 8-8:15, Drake concert ensemble, Blackstone string quintet; 8:15-8:45, WEAF; 8:45-9, musical program; 9-10, Our Music hour; 10-10:15, Sam N. Henry; 10:10-11, WGN studio ensemble.
WGY, Schenectady, N. Y. (379.5m-790ke), 7:30 p. m., Hotel Pennsylvania orchestra; 7 p. m., miscellaneous program; 7:30, Hotel Madison orchestra; 8:30, miscellaneous program; 9-9:30, WJZ.
WHAR, Atlantic City, N. J. (275m-1090ke), 10:45 a. m., Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50, evening service; 9, classical program, Seaside hotel ensemble.
WJAZ, Chicago, Ill. (329.5m-910ke), 7-9 p. m., Dangremont trio; Kathryn Ready, soprano; John Bennet Ham, baritone.
WJJD, Mooseheart, Ill. (370.2m-810ke), 12-2 p. m., Howard L. Peterson, organist; 1:30-3:30, Mooseheart Sunday concert; 3:30-4, Mooseheart Radio; 4:30-5, 5:30, Palmer House Sunday symphony orchestra.
WLIB, Chicago, Ill. (302.8m-990ke), 5-5:45 p. m., Liberty studio ensemble; 5:45-6:15, Edward Benedict, organist.
WLS, Chicago, Ill. (344.6m-870ke), 7-8:55 p. m., WLS Little Brown church in the Valley; WLS trio; Sol Heller, baritone.
WLW, Cincinnati, Ohio (422.3m-710ke), 9:30 a. m., Sunday school; 11, church service, G. W. Kirchner, Y. M. C. A.; 3 p. m., organ recital, J. Alfred Schehl; 7:30, First Presbyterian church; 8:30, Crosley ensemble orchestra.
WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trio-ensemble and vocal artists in concert; 9-11, Trio-ensemble, Dell Liance, Woodlawn theater orchestra, Armin F. Hand, Trio-ensemble, Billie Allen Hoff, Yail and Abbott, Joe Parsons, Bob Bennett.
WOK, Chicago, Ill. (217.3m-1380ke), 6 p. m.-1 a. m., Tip-Top Inn string ensemble concert; Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra, Katz and his Kittens' orchestra; Capitol theater program.
WREO, Lansing, Mich. (285.5m-1050ke), 10:30 a. m., First Baptist church; 7:30, Reo Motor Car company band; John George, soloist.
WSAI, Cincinnati, Ohio (325.9m-920ke), 7:45 p. m., chimes; 8:15, WCAE; 8:45, WEAF.
WSWS, Chicago, Ill. (275m-1090ke), 11 a. m., Moody church; 3:30 p. m., popular service; 7, song service.
WTAM, Cleveland, Ohio (389.4m-770ke), 10:30 a. m., First Methodist church; 7 p. m., Park theater orchestra; 8, twilight musicale.
WVJ, Detroit, Mich. (352.7m-850ke), 10 a. m., First Presbyterian church; 9, studio news orchestra; 6:20, WEAF; 8:15, WEAF.

Tuesday, July 27

Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.
WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., "Ye olde tyme sonse feste," with Roy Clark, Sally Simpkins, Jim Forshey, Mae Gamble, Claude Lee, Beth Garrison, Van Wyck's instrumental quartet; 9:30, Regent Grand orchestra; 9:45, Melissa Dvorak, pianist; 10:05, Salvation Army hour.
WRC, Washington, D. C. (468.5m-640ke), 7 p. m., New Willard hotel orchestra; 7:30, WJZ; 8, announced; 9, WJZ; 9:30, announced; 10:30, Meyer Davis' Le Paradis band.
WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 8:15, Reo Motor Car company band.
WSAI, Cincinnati, Ohio (325.9m-920ke), 7:30 p. m., musical; 8, WEAF; 9, musical.
WSWS, Chicago, Ill. (275m-1090ke), 8 p. m., orchestra; Jean St. Ann, Clinton Keithley, songs; Eulalia Kober, pianist; Delores Diazanod, Walter Luis, baritone; 10, quintet; Billy Allan Hoff, Art Becker, pianist; Joe Caffey, tenor; Oscar Heather, tenor; 12 midnight, Witching hour.
WTAM, Cleveland, Ohio (389.4m-770ke), 6 p. m., State theater vaudeville; 7, WEAF; 10, studio program; 11, Euclid Beach Park orchestra.
WVJ, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; 7, WEAF.

Central Standard Time Stations

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Catfish string band.
KLDL, Independence, Mo. (440.9m-680ke), 8 p. m., studio recital, Clara Thompson, leading tenor in "Artists and Models," Edith Willis, pianist.
KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., May's mandolin musicians.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinet Jules, organist; 7, KMOX Radio orchestra; 9:30, Bert Williams, Alma Rotter, J. L. Bischof; 10, Aus Russland.
KOL, Council Bluffs, Iowa (277.6m-1080ke), 6:03 p. m., Mono Motor Oil entertainers; 7:30, Florence Bassler Palmer, director; 11, Hotsy-Totsy hour.
KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., Skyline studio concert.
WBAP, Fort Worth, Texas (475.9m-630ke), 7:30-8:30 p. m., Clyde Massengale, baritone; Florence Massengale, pianist; 9:30-11, Wagner Hawaiian trio.
WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Troy Floyd's orchestra; 8:30-9:30, Tom D. Collins presents Gibson mandolin and guitar club; 11-12, Jimmy Joy's orchestra.
WGBF, Evansville, Ind. (236m-1270ke), 7 p. m., musical program; 8, musical program.
WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., Cardinals.
WHB, Kansas City, Mo. (365.6m-820ke), 7-7:30 p. m., organ concert; 8-9:15, Ukulele songsters, Harry Taylor, Sam Martin; Mrs. Harry Taylor, pianist; Lillian Valentine, soloist.
WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Philbeck and his Younker tea-room orchestra; 8-9, Bankers Life trio.
WMC, Memphis, Tenn. (499.7m-600ke), 8:30 p. m., Tennessee Collegians.
WOAI, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Gerhardt Mexican players.
WOAW, Omaha, Nebr. (526m-570ke), 6:20 p. m., popular song period, Lillian Madsen; 6:50, orchestra; 9, George H. Lee company.
WSM, Nashville, Tenn. (282.8m-1060ke), 8 p. m., Mildred King, pianist; Edward Stockman, baritone.

Mountain Standard Time Stations

KXFP, Colorado Springs, Colo. (250m-1200ke), 7:30 p. m., R. Gritz Cox, free voice lesson; 8, Clifford Brown, tenor; Kenneth Brown, baritone; Dorothy Doty, mezzo-soprano; Virginia Marbut, pianist; 10-11:30, Bertram T. Wheatley, concert organist.
KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., Brown Palace string orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Virginia ballroom orchestra; 8-9, Screen Artists string quartet; 9-10, Composers series program; 10-11, Packard Radio club.
KFWB, Hollywood, Calif. (252m-1190ke), 7-7:30 p. m., program, Morris and company; 7:30-8, program, White Auto company; 8-9, studio program; 9-10, program, American Brake Testing Machine company; 10-11, Warner Brothers frolic.
KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., Skaggs United Artists; 10-12 midnight, Herman Kenin's dance orchestra; Curt Kramer, pianist.
KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:30 p. m., weekly visit of Queen Titania and the Sandman; 7:40, talk on dogs; 8-10, Times de luxe program.
KNX, Hollywood, Calif. (336.9m-890ke), 7-7:45 p. m., program, Geo. E. Read, Inc.; 8-9, program, Builder's Finance association; 9-10, program, Western Auto Supply company; 10-12 midnight, Ray West's Coconut Grove dance orchestra.

Wednesday, July 28

Headliners Today

Table with columns: Atlantic, Eastern, Central, Mountain, Pacific. Lists radio stations and their headliners for Wednesday, July 28.

For stations silent tonight refer to first Wednesday's list.

Atlantic or Eastern Daylight Saving Time Stations

WCAU, Philadelphia, Pa. (277.6m-1080ke), 6:45 p. m., Eddie Campbell's orchestra; 7:30, recital, N. Snellenburg and company; 8:10, Hotel Pennsylvania orchestra; 8:30, Miller piano period; 9, songs; 9:30, Lewis and Borelli, violin and piano; 9:45, Senator Hassonpfeffer; 9:50, Maurie Patton, tenor; 10:30, Zoehms and Herscher, songs; 10:45, Frank Cook, old-time songs; 11, Artie Bitton's "Cheer-Ups."
WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, dinner music, Synagogue service; Shinolas and the 2 in 1 Man; Davis' Saxophone octet; Ipana Troubadours; U. S. Army band, WCAP; light opera; orchestra.
WEBJ, New York, N. Y. (272.6m-1100ke), 8 p. m., Dixie Daisy entertainers; 8:45, Ben Ruty, Michael Sanio, Hawaiian guitar duets; 9, Irene Freeman, concert pianist; 9:15, Joseph Zablou, baritone; 9:30, Original Melville Five.
WGBS, New York, N. Y. (315.6m-950ke), 6:30 p. m., Jess Williams Savoy orchestra.
WHN, New York, N. Y. (361.2m-830ke), 7:30 p. m., Loew's Lexington organ recital; 9:10, Loew's New York orchestra; 9:30, Palisades Amusement Park orchestra; 10, Roseland dance orchestra; 11:30, Silver Slipper orchestra; 12, Cotton club orchestra.
WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.
WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Hotel Madison concert orchestra; 8, Imperial Imps; 8:30, Stadium Philharmonic concert; 10:30, Hotel Astor Roof orchestra.
WLIT, Philadelphia, Pa. (394.5m-760ke), 7:30 p. m., Dream Daddy's bedtime stories; 8, recital; 8:30, Progress Paint company concert; 10, Arcadia dance orchestra.
WLWL, New York, N. Y. (288.3m-1040ke), 8:30 p. m., Hearstside Harmonizers of Lucerne.

WMAK, Buffalo, N. Y. (365.3m-1130ke), 6:30-7:15 p. m., dinner music, Hotel Lafayette; 7:30-8:15, Eastman theater orchestra; 8:15, Rochester studio, WHAM program.
WMOA, New York, N. Y. (340.7m-880ke), 6:30 p. m., Ernie Golden and his Hotel McAlpin orchestra; 7:30, Tappen's orchestra; 8, Furness entertainers; 8:30, Meister Homesteaders; 11, Jack Denny's orchestra; 11:30, Club Brighton orchestra; 12, McAlpin entertainers.
WNYC, New York, N. Y. (526m-570ke), 6 p. m., piano selections.
WOO, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Sylvania dance orchestra; 8, WEAF; 10, Fox theater program; 10:30, Ritz Carlton dance orchestra.
WOR, Newark, N. J. (405.2m-740ke), 9 p. m., Pryor's band; 9:45, Monterey society orchestra; 10:45, Monterey concert orchestra; 11:15, Ben Bernie Berkeley Carteret grill.

Eastern Standard or Central Daylight Saving Time Stations

KYWB, Chicago, Ill. (535.4m-560ke), 6:30 p. m., Joska DeBabay and his orchestra; Blittie-Benson orchestra; 7, American hour; 9-10:30, classical concert, Commonwealth Edison company; 10:30-12 midnight, Congress carnival.
WEBM, Chicago, Ill. (225.3m-1330ke), 5-6 p. m., Eddie Hansen, organist; 9-10, Jack Crawford's Alemitie high pressure orchestra, "Hi and Si," Kay Bonayne, contralto; Frank Porter, tenor; Lee Sims, Smith and Ford, Alemitie high pressure boys, Florence Sangor, pianist; 12 midnight, The Nutty club.
WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers; 12-2 a. m., All-American Pioneers.
WGES, Chicago, Ill. (249.9m-1200ke), 8-9 p. m., Frank Sylvano, Louis Panico, orchestra, organ; 11-1 a. m., frolic.
WGHB, Clearwater, Fla. (265.3m-1130ke), 8:30-10 p. m., Caroline Lee, "The Virginia Girl" and her Spanish guitar; Frederick Charlton, one string violin, and guitar; hand saw; Eldon McMullen, pianist.
WGHP, Detroit, Mich. (270.1m-1100ke), 6 p. m., dinner concert; 8:30, music; 9-10, WGHF ensemble; 12-1 a. m., Gerald Marks' orchestra.
WGN, Chicago, Ill. (302.8m-990ke), 6:45-7 p. m., Drake concert ensemble; Blackstone string quintet; 8:30-9, musical; 9-10, musical; 10-10:30, Sam 'n' Henry; 10:10-10:20, Music Box; 10:20-10:30, studio program; 11:00-12:30 a. m., Pepper party.
WGY, Schenectady, N. Y. (379.5m-790ke), 6:30 p. m., program, Eastman theater; 7:15, WHAM.
WJAZ, Chicago, Ill. (329.5m-910ke), 9-12 midnight, Mae Yeffall, violinist; Helen Jenkins, pianist; vocal selections, Alexander Nakutin studio; piano selections, Edwin J. Gemmer studio.
WJED, Meeseheart, Ill. (370.2m-910ke), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Compton's "I see by the newspaper" man; Palmer House Victorians; 7-9, music by children of all ages; solos, bands, etc. 9-11, Palmer House Victorians; Isabel Defaut; R. V. Thomas; John Norton; 11:30-12:30 a. m., Settin' Up hour.
WLIB, Chicago, Ill. (302.8m-990ke), 7-7:05 p. m., Million sing; 7:05-7:15, Old-Fashioned Almanack; 7:15-7:30, dinner music; 7:30-7:50, Pathison Coates, baritone; Edward Barry, pianist; 7:50-8, Auld Sandy; 8-8:30, WEAF; 12:30-1 a. m., Ambrose Larsen, organist.
WLS, Chicago, Ill. (344.6m-870ke), 6:30 p. m., Elsie Mae Look, organist; 6:45, Maurie Sherman's College Inn orchestra; 7, Lullaby time, Elsie and Ralph; Rose Sherman, violinist and Marie Ludwig, harpist; 7:30, Al Melgard, organist; 8:10, Maurie Sherman's College Inn orchestra; 8:30, Midwest quartet in WLS barber-shop; 9, WLS trio; 10, Medicine show with Kruger and Dillon, Tin Pan Alley.
WLW, Cincinnati, Ohio (422.3m-710ke), 8 p. m., organ concert, Johanna Grosse; 8:30, Stella Haugh, soprano; 9, Middletown, Ohio Ladies quartet; 9:30, the Latonia Melody boys; 10, the Cincinnati Post "Pink of Programs"; 11, Pages Royal Elk syncretors.
WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon duo, Monte Blunn, concert tenor; Eleanor Kaplan, violinist; David Boyd, whistler; Preston Graves, pianist; 9-11, Trianon orchestra, Dell Lampe, Woodlawn

theater orchestra, Armin F. Hand, Monte Blunn, tenor; Irene and Albert Patten, harmonica guitar duo, Clinton Keithley, tenor; Vail and Abbott, harmony duo.
WOK, Chicago, Ill. (217.3m-1380ke), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.
WOOD, Grand Rapids, Mich. (241.8m-1240ke), 9 p. m., popular program, "16-Fingered Paul," Moke Marrin, Helen Neuman, Jim Forshey, Ruth Glaser and Pearl Knudson, Sid Goldman, Ramona Gardens orchestra; Potter brothers, Van Wyck's instrumental quartet; 10:05, Paul Estabrook and studio artists.
WRC, Washington, D. C. (468.5m-640ke), 5-6:20 p. m., U. S. Marine band.
WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders.
WRVA, Richmond, Va. (256.3m-1170ke), 8:50 p. m., Robert Beadles, assisting soloists; 9:30, organ recital, Back to Old Virginia.
WSAI, Cincinnati, Ohio (325.9m-920ke), 6:45 p. m., chimes; 7, WEAF; 10, Congress Playing Card string quartet.
WSWS, Chicago, Ill. (275m-1090ke), 8 p. m., orchestra; Leola Aikman, ballads; Vesta Balch, Peter Grosso, vocal soloists; 10, Terrace Gardens quintet; Paul Davis, Jack Goodwin; Georgia Gray, violinist; 12 midnight, Witching hour.
WTAM, Cleveland, Ohio (389.4m-770ke), 6:15 p. m., Hotel Cleveland orchestra; 8, Public auditorium program.
WVJ, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; WEAF; 7:30, Detroit News orchestra; 8, dance program; 9, Detroit News orchestra.

Central Standard Time Stations

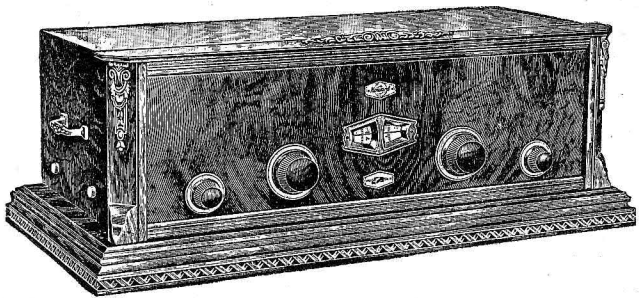
KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Radio trio, Mascho, Cunningham, Mascho.
KMA, Shenandoah, Iowa (252m-1190ke), 9-11 p. m., mixed musical program.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinet Jules, organist; 7-8:30, KMOX Radio orchestra; 8:30-9:30, orchestra, Alice Maslin, reader; 9:30-11:30, orchestra; "A Night at an Inn," Lord Dunsany.
KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., Skyline studio concert; 8:30, Mrs. T. J. Harling, mezzo.
KWCR, Cedar Rapids, Iowa (278m-1080ke), 9 p. m., recital.
WBAP, Fort Worth, Texas (475.9m-630ke), 7:30-8:30 p. m., Sorin-White orchestra; 9:30-11, Alice Patterson Duff.
WCOA, Pensacola, Fla. (222m-1350ke), 7 p. m., harmonica, ukulele, banjo and violin specialties, Howland trio; Gladys Villar, syncopated pianologue; A. C. Reilly, pianist; H. T. Howland, Jr., vocal and violin solos; Florida Footwarmers dance orchestra.
WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., K. & I. orchestra.
WHB, Kansas City, Mo. (365.6m-820ke), 10:30-11:30 p. m., midweek Radio feature.
WHO, Des Moines, Iowa (526m-570ke), 6-7 p. m., Bankers Life Little symphony orchestra; Myrtle Williams, soprano; 7-8, Philbeck and his Younker tea-room orchestra; 8-9, popular program; 9-11, dance program.
WOAI, San Antonio, Texas (394.5m-760ke), 8:30 p. m., Army night, Fort Sam Houston.
WOS, Jefferson City, Mo. (440.5m-680ke), 8:15 p. m., marimba solos, the Condoles.
WSM, Nashville, Tenn. (282.8m-1060ke), 7 p. m., Andrew Jackson hotel trio; 8, studio program; 10, studio program.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., Brown Palace string orchestra; 8, Schenerman's Colorado orchestra; 8:15, violin pupils, Edith Sindlinger Wible; KOA orchestra; Mrs. Alex W. McCoy, soprano; Iris Ruth Gilmore, reader; James Mahaney, pianist.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-7:30 p. m., popular program; 7:30-8, Nick Harris detective story; 8-9, program, California Petroleum Corp.; 9-10, popular program; 10-11, program, Chas. Beauchamp, tenor and others.



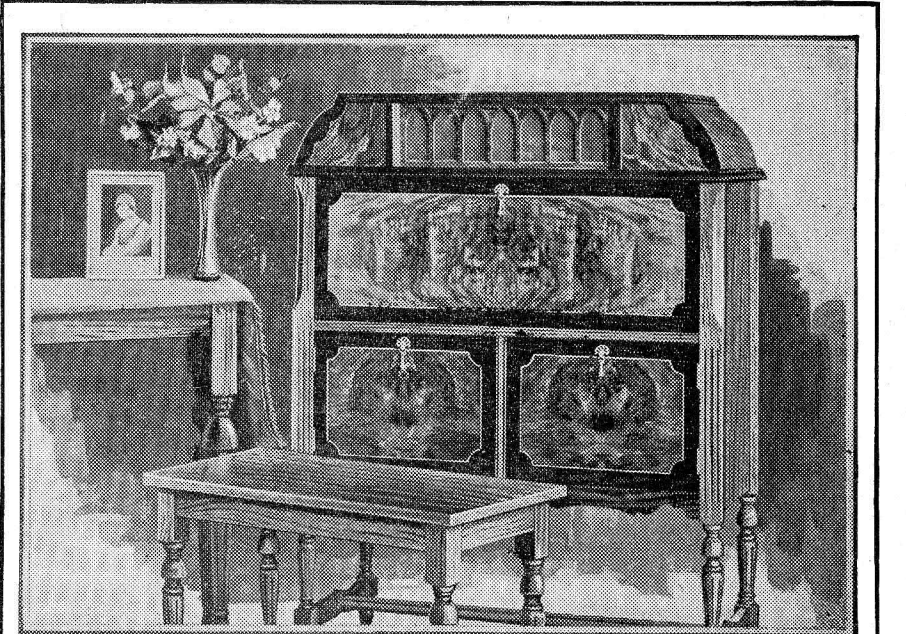
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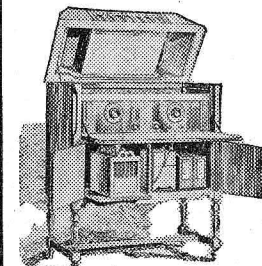
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Pacific Coast Jobbers:

HOLBROOK, MERRILL & STETSON San Francisco

Wednesday, July 28

KFWB, Hollywood, Calif. (492m-1190kc), 7:30-8 p. m., program, Corduroy Tire stores; 8-9, program, A. V. Shotwell Corp.; 9-10, studio program; 10-11, Warner Brothers fric.

KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 8-9, Western Auto Supply company; 9-10, musical.

KHJ, Los Angeles, Calif. (405.2m-740kc), 6:30-7:30 p. m., Uncle John and the children; 7:40, talk on astronomy; 8-10, Tower studio program.

KNX, Hollywood, Calif. (336.9m-890kc), 7-8 p. m., studio program; 8-9, program, Security Trust and Savings bank; 9-10, Motor Transit Stages program; 10-11, Edgewater club; 11-12 midnight, Ambassador hotel dance orchestra.

Thursday, July 29

Headliners Today

Atlantic	Eastern	Central	Mountain	Pacific
9:50 p. m.	8:30	7:30	6:30	5:30
WEAS (399.8m-750kc), Sigma Alpha Iota sorority.	9:50	8:50	7:50	5:50
WRVA (256.3m-1170kc), Country fiddlers.	10	9	8	6
WLW (422.3m-710kc), Carol Singers.	10:30	9:30	8:30	7:30
KWWG (277.8m-1080kc), Carlos Guardiola.	10:30	9:30	8:30	7:30
WFAA (475.9m-630kc), G. Haydn Jones and other artists.	11	10	9	8
WMC (499.7m-600kc), Cooper's Hawaiians.	11:30	10:30	9:30	8:30
WCAU (277.6m-1080kc), Club Cadix revue.	11:30	10:30	9:30	8:30
WBAP (475.9m-630kc), Allene Patterson Duff.				

For stations silent tonight refer to first Thursday's list.

Atlantic or Eastern Daylight Saving Time Stations

CKNC, Toronto, Can. (356.9m-840kc), 8 p. m., Charles E. Bodley and his dance orchestra.

WBB, New York, N. Y. (272.6m-1100kc), 8 p. m., Prof. Charles Rehner, violinist; Fred Twarosch, tenor.

WCAU, Philadelphia, Pa. (277.6m-1080kc), 6:30 p. m., Cathey Tea Garden orchestra; 7:30, Snellenburg instrumental trio; 8, Sadler's Plantation serenaders; 8:30, Clifton's Anglers; 9, Barry O'Moore, tenor; 9:45, Professor Doolittle; 10, recital; 10:15, Frank Worthington, baritone; 10:30, Eddie Campbell's Club Cadix orchestra; 11, Club Cadix revue.

WEAF, New York, N. Y. (491.5m-610kc), 4-12 midnight, midweek hymn; Meyer Davis' Park Lane orchestra; Serenaders; Hires Voyagers; Clequot Club Eskimos; Silvertown Cord orchestra; Buffalodians.

WFI, Philadelphia, Pa. (394.5m-760kc), 7:15 p. m., Keystone Auto club feature; 8, recital; 8:15-11, WEAF.

WGBS, New York, N. Y. (315.6m-950kc), 6:30 p. m., music; 6:45, "Archi" orchestra; 8:30, Oliver Saylor, "Footlight and Lamplight"; 9:20, Archadia orchestra.

WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio; 11, Follies Bergere dance orchestra.

WHN, New York, N. Y. (361.2m-830kc), 8 p. m., Will Oakland's chateau; 8:30, Loew's Gates theater orchestra; 9, Loew's 7th Ave. concert; 9:30, Loew's 83rd St. orchestra; 10:30, Leroy Smith's orchestra; 11:30, Everglades orchestra; 12, Sophie Tucker's playground.

WIP, Philadelphia, Pa. (508.2m-590kc), 6:05 p. m., Benjamin Franklin concert orchestra; 8, Hotel Ambassador orchestra; 8:30, Million Dollar Pier orchestra; 9, Hotel Ambassador concert orchestra; 10:30, Johnny Hamp's Kentuckians; 11, Hotel Shelburne dance orchestra; 11:30, Silver Slipper club dance orchestra.

WJZ, New York, N. Y. (454.3m-660kc), 7:05 p. m., Hotel Madison concert orchestra; 7:40, Judge, Jr.; 8, First National presentation, "The Great Deception," WRC; 8:30, U. S. Marine band, WRC, WGY, WCAD; 9:30, Royal Typewriter Salon orchestra; WGY, WRC, WCAD; 10:30, Fireside Boys; 11, Swane orchestra, WRC.

WLIT, Philadelphia, Pa. (394.5m-760kc), 7:30 p. m., Benjamin Franklin concert orchestra.

WMCA, New York, N. Y. (340.7m-880kc), 7 p. m., Hofbrau Haus entertainers; 8, Roemers Homers; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway night.

WNYC, New York, N. Y. (526m-570kc), 6:35 p. m., piano selections; 7:15, songs.

WOO, Philadelphia, Pa. (508.2m-590kc), 7:30 p. m., Adelphia Roof Garden orchestra.

WOR, Newark, N. J. (405.2m-740kc), 6:30 p. m., Hotel Bretton Hall string quartet.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560kc), 6:30 p. m., dinner concert; 7, Chicago Evening American studio; 8-9, "Twenty Minutes of Good Reading," Rev. C. J. Permin; 9-10:30, Edison program; 10:30-12 midnight, carnival.

WBAL, Baltimore, Md. (245.8m-1220kc), 6:30-7:30 p. m., dinner orchestra; 7:30-8, mixed quartet; 8-9, trio; John Wilbourn, tenor; 9-10, dance orchestra.

WBBM, Chicago, Ill. (225.3m-1330kc), 4-5 p. m., musical matinee, WBBM staff, other artists; 5-6, Eddie Hansen, organist; 8-9:30, Lee Sims, Kay Romayne, contralto; "Hi and Si," Eunice Hoefler, organist; Alemitte string trio, Jack Crawford's Alemitte high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra; 9:30-10:15, Moss Covered melodies; 10:15-10:30, Izaak Walton hour; 10:30-11:30, First National violin ensemble, Lee Sims, Vic Fredericks, baritone; Maurice Silverman, tenor, and WBBM staff; 11:30-12 midnight, Howard Osburn's Vanity Fair cafe orchestra, Jack Crawford's Alemitte high pressure orchestra.

WCBD, Zion, Ill. (344.6m-870kc), 9 p. m., celestial bells; Richard F. Hire, violinist; duets; Mrs. Isabel Nelson, soprano; J. L. Bishop, baritone; M. P. Barton, tenor.

WENR, Chicago, Ill. (265.3m-1130kc), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers.

WGES, Chicago, Ill. (249.9m-1200kc), 8-9 p. m., Joe Morrison, Esther Richards, Frank Sylvano, Peggy O'Neill, Louis Panico, orchestra; 11, frolic.

WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10 p. m., Capitol theater orchestra.

WGHP, Detroit, Mich. (270.1m-1110kc), 6 p. m., dinner concert; 10-11, WGHP Frolickers, Winifred Huntoon, soprano; 11-12 midnight, Skylark dance band; 12-1 a. m., Gerald Marks' orchestra.

WGN, Chicago, Ill. (302.8m-990kc), 6:45-7 p. m., request program; 8-9, WEAF; 9-10, WEAF; 10:10-10:20, Music Box; 10:20-10:30, great moments, grand opera; 10:30-11, WGN's studio ensemble.

WGY, Schenectady, N. Y. (379.5m-790kc), 6:45-7:30 p. m., Ruth Feinburg, pianist; 7:30-8:30, WRC; 8:30-9:30, Royal hour; 9:30-10:30, musical program; 10:30-11:30, Stephen E. Boisclair, organist.

WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio; 9, concert; 11, Follies Bergere dance orchestra.

WJAZ, Chicago, Ill. (329.5m-910kc), 9-12 midnight, program of classical music, Zenith artists.

WJJD, Mooseheart, Ill. (370.2m-810kc), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Compton's "I see by the newspaper" man; Palmer House Victorians; 7-9, music by children of all ages; solos, bands, etc.; 9-11, Palmer House Victorians; WJJD quartet; 11:30-12:30 a. m., Knights of the Burning Candle.

WLIB, Chicago, Ill. (302.8m-990kc), 7:15-8 p. m., dinner music; 11-11:20, Correll and Gosdard; 11:20-1 a. m., Liberty studio ensemble; Fred Ham's orchestra.

WLS, Chicago, Ill. (344.6m-870kc), 6:30 p. m., Elsie Mae Lock, organist; 6:45, Maurie Sherman's College Inn orchestra; 7, Lullaby time, Elsie and Ralph; 7:15, Rose Sherman, violinist; Marie Ludwig, harpist; 7:30, Al Melgard, organist; 8:10, Maurie Sherman's orchestra.

WLW, Cincinnati, Ohio (422.3m-710kc), 6:15 p. m., Norrine Gibbons, Priscilla Holbrook, singers; 7, Hotel Gibson orchestra; 8, recital, operatic program, faculty members, Cincinnati Settlement school; 9, New Castle Apollo club; 10, Theis' Castle Farmers orchestra; 10:30, Irene Downing, Tommy Reynolds; 11, Lazaros Imperial serenaders.

WMAQ, Chicago, Ill. (447.5m-670kc), 6 p. m., Chicago theater organ recital; 6:30, Jack Chapman's orchestra; 9, Flora Hardie Burditt, contralto; 9:30, Jack Chapman's orchestra.

WBMB, Chicago, Ill. (249.9m-1200kc), 7-8 p. m., Trianon ensemble, Elizabeth Reohik, cellist; Margaret Conrad, violinist; Preston Graves, pianist; and special artists in program of music featuring French composers; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Trianon ensemble, John Stamford, tenor; Joe Parson, baritone; Bob Smith, ukulele; Bob Bonnett.

WOK, Chicago, Ill. (217.3m-1380kc), 6-7 p. m., string ensemble concert, Hip-Top Inn; 10-1:30 a. m., Tearney's Town club orchestra; Midway Gardens orchestra; Pershing Palace orchestra; Katz and his Klittens' orchestra; Capitol theater program.

WRC, Washington, D. C. (468.5m-640kc), 7 p. m., WJZ; 7:30, U. S. Marine band; 9, Royal Salon orchestra; 9:30, WRC players; 10:30, Meyer Davis' Swane syn-copators.

WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 8:15, WREO concert orchestra.

WRVA, Richmond, Va. (256.3m-1170kc), 8:50 p. m., Edgeworth evening of fun, frolic, music, country fiddlers, negro chorus, etc.; 11, Carry Me Back to Old Virginia.

WSAI, Cincinnati, Ohio (325.9m-920kc), 7:30-10 p. m., WEAF.

WSWS, Chicago, Ill. (275m-1090kc), 10 p. m., Blues

concert; 11, orchestra; musical readings; 12 midnight, Witching hour.

WTAM, Cleveland, Ohio (389.4m-770kc), 6 p. m., dinner concert; 7:15-9, WEAF; 9, studio program; 11, Jack Horwitz Collegian serenaders.

WWJ, Detroit, Mich. (352.7m-850kc), 6 p. m., dinner concert; 7, WEAF.

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040kc), 9 p. m., musical program, Lincoln, Nebr.

KFRU, Bristow, Okla. (374.8m-800kc), 6-9 p. m., guest artist night.

KLDS, Independence, Mo. (440.9m-680kc), 8 p. m., studio program arranged, Mrs. Corrine Haines French, soprano.

KOIL, Council Bluffs, Iowa (277.6m-1080kc), 6:03 p. m., KMA; Jamieson Oil trio, Lou Reimers, ukulele, Janet Reeves, soprano; 7, auspices program, G. H. Nelson Paint company; 8, Hazel Belt, director; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010kc), 7:30 p. m., Skyline studios.

KWVG, Brownsville, Texas (277.6m-1080kc), 8:30-8:45 p. m., Carlos Guardiola, jazz pianist; 8:45-9, Annie Tucker, soprano; 9-9:30, P. K. McNair, tenor; Carlotta Villereal, Mexican songs; 12-1 a. m., novelty and jazz.

WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30 p. m., Carlos Guardiola, jazz pianist; 8:45-9, Annie Tucker, soprano; 9-9:30, P. K. McNair, tenor; Carlotta Villereal, Mexican songs; 12-1 a. m., novelty and jazz.

WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Jimmy Joy's orchestra; 8:30-9:30, Col. Bill Cole.

WHAS, Louisville, Ky. (399.8m-750kc), 7:30-9 p. m., concert, Sigma Alpha Iota sorority.

WHB, Kansas City, Mo. (365.6m-920kc), 7-7:30 p. m., organ concert; 8-9:30, K. C. Artists' quintet.

WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9, Bankers Life trio.

WMC, Memphis, Tenn. (499.7m-600kc), 8:30 p. m., Cooper's Hawaiians.

WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., Mistletoe Melody Maids.

WOAW, Omaha, Nebr. (526m-570kc), 6 p. m., Elks organ; 6:25, Francis Potter; 6:50, orchestra; 9, classical.

Mountain Standard Time Stations

KFXF, Colorado Springs, Colo. (250m-1200kc), 9 p. m., Howard Hembrey, pianist; John Otten, tenor; Mrs. Leo Conway, pianist.

KOA, Denver, Colo. (322.4m-930kc), 6:30 p. m., Brown Palace string orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642kc), 7-8 p. m., Knights of Ye Knots; Duncan Sisters from Topsy and Eva; 8-9, semi-classical program; 9-10, popular song hour; 10-11, Patrick-Marsh dance orchestra; Betty Patrick.

KFWB, Hollywood, Calif. (252m-1190kc), 7-7:30 p. m., program, O'Neal and Son; 8-9, program, McGavin Brothers Bakeries; 9-10, Bill Hatch and his orchestra; 10-11, Warner Brothers frolic.

KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 9-10, vaudeville entertainment; 10-12 midnight, Spanish ballroom.

KHJ, Los Angeles, Calif. (405.2m-740kc), 6:30-7:30 p. m., Uncle John and the children; 7:40, talk on health; 8-10, Zoellner string quartet.

KNX, Hollywood, Calif. (336.9m-890kc), 7-8 p. m., program, Wright, Alexander and Greeley; 8-9, Willys-Overland dealers' program; 9-10, Balboa Beach Nuts; 10-11, Edgewater club; 11-12 midnight, Ambassador hotel dance orchestra.

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Friday, July 30

Headliners Today

Table with 5 columns: Atlantic, Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Friday, July 30.

For stations silent tonight refer to first Friday's list.

Atlantic or Eastern Daylight Saving Time Stations

List of radio stations and programs for Atlantic or Eastern Daylight Saving Time on Friday, July 30.

WNYC, New York, N. Y. (526m-570kc), 6 p. m., piano selections.

Eastern Standard or Central Daylight Saving Time Stations

List of radio stations and programs for Eastern Standard or Central Daylight Saving Time on Friday, July 30.

WOOD, Grand Rapids, Mich. (241.8m-1240kc), 9 p. m., classical concert; Van Wyck's instrumental quartet; 10:10, Ramona Radio Revelry, Ramona Gardens orchestra.

Central Standard Time Stations

List of radio stations and programs for Central Standard Time on Friday, July 30.

Palace string orchestra; 7:30, Rev. William O. Rogers; 8, Denver Municipal band.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642kc), 7-8 p. m., dance music; 8-9, Aeolian organ; 9-10, Harry Decker's Hawaiians; 10-11, Packard ballad hour.

Saturday, July 31

Headliners Today

Table with 5 columns: Atlantic, Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Saturday, July 31.

For stations silent tonight refer to first Saturday's list.

Atlantic or Eastern Daylight Saving Time Stations

List of radio stations and programs for Atlantic or Eastern Daylight Saving Time on Saturday, July 31.

Equal Amplification! At All Wavelengths! —the Equamatic System

A simple and positive method of automatically equalizing and balancing all radio circuits at all broadcasting wavelengths has been the aim of radio engineers since the inception of radio receiving.

This aim is now realized in the Equamatic System

- 1. The Equamatic System gives maximum and equal sensitivity and amplification over the entire tuning range. 2. It develops greater selectivity without distortion or loss of harmonics. 3. It assures perfect balance on all wavelengths without employing "losser" methods. 4. It accomplishes greater effective wavelength range for any given inductances and condensers. 5. It conserves the life of "A" and "B" batteries. 6. It simplifies operation of all sets by perfect synchronization of the first dial with the others. 7. It eliminates fundamental wavelength antenna absorption. 8. It provides simple adjustment to meet varying conditions, permitting perfect balance of tubes, antenna, and associated apparatus.

EKROTH LABORATORIES REPORT—

states they find that the Equamatic System "possesses greater average amplification, selectivity, sensitivity, and freedom from distortion than those of the present leading types of commercial radio receivers, and, further, that these advantageous features are maintained equal in value at all frequencies within the full broadcasting range."

The essential parts for the building of an Equamatic receiver are made by Karas Electric Company, manufacturers of the well-known Orthometric condenser, the Harmonik transformer and Micrometric dial. A booklet fully explaining the Equamatic System, what it accomplishes and how it does it, will be sent on receipt of 10c in coin or stamps.

KARAS ELECTRIC CO.

FACTORY: N. ROCKWELL ST. Offices: 1040 Association Bldg., Chicago

Televocal QUALITY TUBES

Dependable and a Technical Triumph



DEALERS AND JOBBERS—WRITE US

A RADIO TUBE that is non-microphonic—won't short. Sold in matched units; tested, balanced and plainly marked detector, radio frequency or audio frequency.

Ask your dealer for this new and better radio tube that costs no more. If he can't supply you with Televocals, send us his name and address on attached coupon.

Televocal Corp'n. 67 A FIFTH AVE. — NEW YORK

Coupon form with fields for Dealer's Name, City, State, and Your Name.



Fred W. Stein.

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 wonderfully, increases volume, and partially absorbs static. MONEY-BACK GUARANTEE.

Mfrs. Famous 1,500-Mc. Steinite 1-Tube set \$6. Long distance Crystal Set, \$6. Steinite Crystals, 50c—3 for \$1. Write for complete illustrated literature on all Steinite Radio Products.

Put this interference eliminator on your set and note amazing improvement. No tools needed—install in a moments time. Connect with set and follow simple instructions. Money back promptly if not delighted. \$1.00 postpaid anywhere in U. S. when cash with order.

References: Exchange National Bank, Atchison Savings Bank. Order today—a dollar bill will do. STEINITE LABORATORIES, 261 Radio Bldg., ATCHISON, KANSAS



Put this interference eliminator on your set and note amazing improvement. No tools needed—install in a moments time. Connect with set and follow simple instructions. Money back promptly if not delighted. \$1.00 postpaid anywhere in U. S. when cash with order.

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Saturday, July 31

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Harry Leonard's Waldorf-Astoria Roof orchestra; 8:25, Stadium Philharmonic concert, WRC; 10:30, Hotel Astor Roof orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, Ill. (535.4m-560ke), 7 p. m., music hour; 8, Congress hotel studio; 9-10:30, classical program; 10-11:30, classical concert; 10:30-12 midnight, carnival.

Central Standard Time Stations

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., KVOO orchestra.

Mountain Standard Time Stations

KFXF, Colorado Springs, Colo. (250m-1200ke), 9 p. m., Sells-McClusky first orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Al Wesson and his orchestra; 8-9, Angelus string trio; 9-10, semi-classical hour; 10-11, Packard Radio club; 11-2 a. m., KFI midnight frolic.

RADIO-MADE SCREEN STAR MAKES DEBUT

TO FILM "ANN HOWE," NOT KNOWN EXCEPT ON AIR

Motion Picture Producers Watch Experiment—Curious Invisible Audience May Put Her Over

NEW YORK.—With the signing of Ann Howe to star in a series of twelve screen productions, Radio scores another triumph as a powerful medium for popularizing a personality.

Meany's appeal that Radio assert itself in making a film star met with such enthusiastic response from KFI and KNX audiences that a trip was arranged for him to visit the largest broadcasting stations from San Francisco to New York as a guest announcer and sponsor of the movement to so popularize Ann Howe that she would be sought out by picture producers to play star roles in photoplays.

the idea expressed in the question "Can Radio make a screen star?" The reply was an emphatic "Yes" but the question then was "Ann Howe?"

The pictures will be taken in New York. Wally Van, famous as a screen comedian in the old days, will direct the "Radio made" screen star in her first vehicle, a comedy drama.

Ann Howe's appearance has remained secret from the Radio audiences who have pledged their support of her efforts on the screen.

Lodge Is Seventy-Five

LONDON.—Sir Oliver Lodge, the "Grand Old Man of Science" and pioneer of Radio, who has the gift of being perennially youthful, has just passed his seventy-fifth birthday.

"I am feeling younger now than when I was in the harness," said Sir Oliver in an interview. "My experience has been that when a man retires he becomes younger.

\$1,000, Medal for Paper on Radio Communication Law

CHICAGO.—The Charles C. Linticum foundation of the Faculty of Law of Northwestern University here, announces that a sum of \$1,000 and a medal will be awarded to the author of the best essay or monograph, submitted by March 1, 1927, on "The Law of Radio Communication".

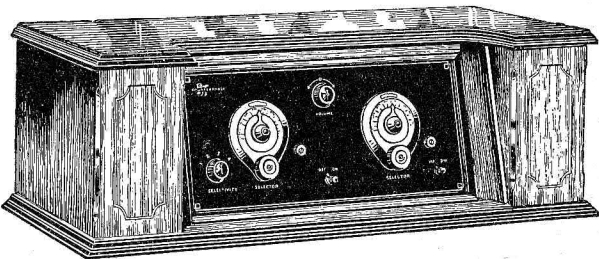
Another sum of \$1,000 and a medal will be awarded for the best essay or monograph, submitted by March 1, 1928, on the subject known as "Scientific Property," i.e., the granting of a quasi-patent right to the maker of a scientific discovery.

The author must be either a member of the bar or a student registered in any American or Canadian law school. Complete conditions of the awards may be secured by writing the Dean of the Northwestern University Law School, Northwestern University building, Chicago.

70,000 Sets in Denmark

WASHINGTON, D. C.—A recent survey of Denmark showed approximately 70,000 Radio receiving sets in use, according to a report to the department of commerce from Commercial Attache H. Sorenson at Copenhagen. Copenhagen has 48,000 sets, thirty-five per cent of which are tube receivers.

New B-T Contributions to Better Radio The Counterphase-Eight and the NEW COUNTERPHASE-SIX



The demand for the Model illustrated here far exceeded the production of the factory. The New COUNTERPHASE PERMANENT models will be enclosed in beautiful cabinets introducing some new ideas in design.

In the New COUNTERPHASE B-T have achieved their ambition for which all have been striving, namely, to secure sensitivity over the full scale and it is done without an oscillation control and in a set that cannot be made to oscillate.

The "bloop" evil is destroyed, there is greater efficiency and at the same time greater simplicity.

Through an entirely new arrangement, the COUNTERPHASE-EIGHT furnishes a degree of selectivity that even B-T have never before attained.

These are only a few of the many features found in these new PERMANENT models. Special circulars tell the whole story.

BETTER TUNING

The Tenth Edition of BETTER TUNING gives full information on the New COUNTERPHASE and B Power Unit and other information of value to anyone interested in Radio. Sent on receipt of 10c in stamps or coin.

B POWER UNIT

Recommended for use with our receivers, the best endorsement we can give but it may be used with any set up to seven tubes. Fixed resistances enable the user to know at all times the exact voltage delivered to the set.

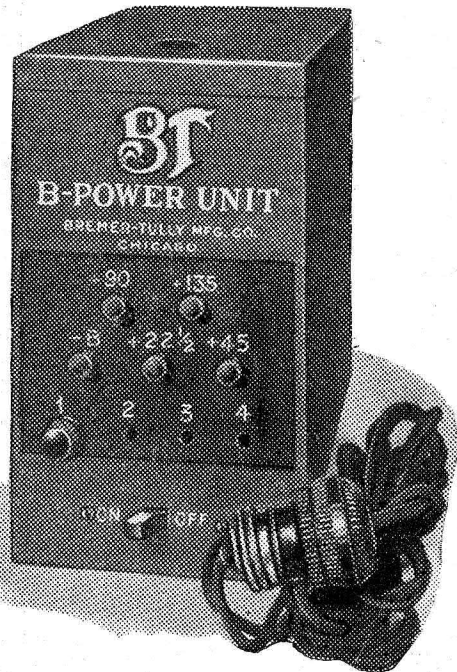
It would not be on the market if B-T did not believe it superior to any similar unit now sold.

BT Leadership and Prestige has increased steadily year by year since broadcasting began.

Each season B-T has brought out new and original products.

Foolish and extravagant advertising claims have never been made but the Radio Public has always found out eventually that B-T products are seldom equalled and never surpassed.

The success of the B-T NAMELESS of three years ago is known the world over. In it was introduced the original "Oscillation control." This year you may expect to see many sets feature various modifications of tone controls, high wave switches, etc.



BREMER-TULLY MFG. CO. 532 SO. CANAL ST. CHICAGO, ILL.

"SURE-FIRE STUFF"

(Continued from page 7)

your game for some time. You're in love with this dame—that's what's the matter with you."

"Matter or not, it's none of your affair. Now get up and get out before I give your windpipe another squeeze."

Jadwyn pulled himself up with the aid of a chair, sat for a moment panting, then staggered toward the door, making a feeble effort to straighten his collar and cravat. "This is only the beginning of trouble for you two—remember that!" With this threat he straightened up, seized his hat and lunged through the door.

"Oh, Mr. Clavering," faltered Sheila. "Did you hear what he said?"

"Never mind that," returned Johnny. He took her hands in his own. "And now let's be sensible. You need money, and you've got to take it from me. How much?"

"Oh, but I can't—I can't!"

"You can and will. I understand everything. Will five hundred be enough?"

"Yes, more than enough—but—"

"Then it's settled. I'll go to my dressing room and write a check. You sit down and write to Bobby. Tell him everything just as it occurred. He's a sensible chap and he'll understand."

"Yes, I believe he will; and some day we'll repay the loan." The look of joy that suffused her features made Johnny Clavering grit his teeth.

The next morning the telephone in Johnny's room tinkled shrilly.

"This is Mr. Beall's office," said a voice at the other end of the wire. "He wants to see you at once."

"Tell him I'll be there as fast as a taxi can bring me," was Johnny's quick reply.

I NSTINCTIVELY he had expected this summons. Jadwyn would try to make good on his threat. But Mr. Beall, "Czar" of the vaudeville world, was a just man, as Johnny knew.

Within half an hour he was ushered into the palatial office of the vaudeville magnate on the top floor of a prominent office building.

"Sit down, Clavering," greeted Beall cordially. "And have a cigar—we can talk better if we smoke."

"Thanks," said Johnny and dropped into a chair.

"Let's see—you've been in vaudeville eight years now, haven't you?"

"About that time I think, sir."

"And in all that period we have never had a complaint about you—until today."

"I'm surprised Jadwyn didn't ring you up at home last night."

"Well he unloaded on me this morning. I presume you know the charge he had lodged against you?"

"No, sir; but it might be anything, coming from him."

"Criminal assault!"

"If true, seems like it would be a case for the police."

"Yes; but instead Jadwyn came to me." Beall adjusted his glasses and picked up a sheet of memorandum on his desk. "Just what do you know about this girl, Sheila Shambaugh?"

"Never saw her in my life, till I opened at the Palladium last week. But she's sure-fire in the two-a-day, and if she gets her dues she'll be a billtopper in another year."

"Know anything about her?"

"Not much, Ganton says she's supporting a crippled husband. Said they were known on the small time as the Dancing Shambaughs."

"How did you come to choke Jadwyn?"

"I would have been delighted at the chance on general principles; but fortunately he gave me a better opportunity. I was passing Miss Shambaugh's dressing room when I heard loud voices. From the girl's tones I knew she needed help."

Well, sir, she got it! I have no regrets. That's all there is to that, sir."

"What do you know of Jadwyn's business relations with Miss Shambaugh?"

"I know he has a personal contract with her, giving him not only the usual commission but a slice of her salary—his usual policy in dealing with artists, as perhaps you know."

"Did Miss Shambaugh tell you he was gouging her?"

"No; but Jadwyn practically admitted it himself."

"Good!" Beal arose and extended his hand. This confirms our suspicions. Miss Shambaugh is a plucky girl and we're going to take care of her. And Johnny—unofficially, you know—I don't believe you choked Jadwyn half hard enough!"

Johnny grinned and took his leave.

"A lady in the lounge to see you, sir," a bell-boy informed him when he returned to his hotel.

Johnny lifted his eyebrows in mild surprise, shrugged his shoulders and followed the blue-uniformed lad. Some fellow-artist in trouble no doubt.

It was a distinct shock—why, he could not have told—to have Sheila rise to greet him.

"You've seen Mr. Beall," she cried "and the news is bad?"

"Pretty bad," returned Johnny gravely. "Oh, I knew it—I knew it!"

"Bad—for Jadwyn."

"For Jadwyn? You mean—"

"At the end of his rope—yes. No more long suffering artists on his books; no more threats to do as he says or be sent to the sticks."

"Oh, Johnny—I—I—mean, Mr. Clavering—"

"Make it Johnny—everyone calls me that."

"I was so worried—so worried—"

"Well your troubles are over now."

"No—I mean worried—afraid—for you!"

"For me?"

"Yes; I could never forgive myself if you had lost out because of me."

"Believe me, Sheila, I couldn't have lost out in a better cause."

She began suddenly to laugh; then to cry; slightly hysterical. The nervous strain was telling on her.

"Poor kid!" murmured Johnny. He never knew how it happened, but she came quickly into his arms, and all else for the moment was forgotten in the realization that she cared.

"Johnny, I—I know you'll think me a silly little fool, but I've been mad—perfectly mad—about you ever since that first day at the Palladium."

"Mad about me! That sounds wonderful, but great heavens, girl we must stop this before it goes to far!"

"Too far?" She raised a startled face to his. "You—mean—you—do not—care?"

"Care? More than I ever knew I could care for anyone."

"Then—"

"Why, there's Bobby, Sheila—we must think of Bobby!"

"But Bobby won't care now. I sent him the money last night."

Johnny staggered back. "Won't care? Will you tell me for pity's sake, just what kind of a husband he is?"

"Husband!" gasped Sheila. "Why he's not my husband—just my dear old buddy! I thought you knew that."

Johnny choked up. He couldn't speak. But he registered joy in a way Sheila could not misunderstand.

THE END

Alice wanted to help but what could she do when her father said that Dick's physiognomy was against him for ever achieving success as a lawyer? She did what she could and it almost spelled disaster. It's another Van Demark short story in the next Radio Digest. Don't miss it.

KFWO ON TOP OF WORLD

(Continued from page 5)

for him by the Western Electric company of New York and not to be found in any other broadcasting station.

How we love to quote the old platitude about "he who laughs last—" It's just as true as it ever was. Some three years ago Major Mott was the cause of much merriment when he asserted his belief in low wave lengths. Today the low wave length is "the thing" in Radio with stations struggling to get as low a wave as possible.

To quote further from copy book lore, "The proof of the pudding is in the eating." With but 250 watts and a wave length of 211.1 meters KFWO is heard clearly in every state in the union, in every Canadian province and as far north on the Atlantic Coast as Point Tupper, Nova Scotia, which is some one hundred and fifty miles northeast of Halifax. Needless to say Honolulu is familiar with KFWO programs and what is more as-

tounding two exact reports have come in from London, England!

"He who laughs last—" With 250 watts and a short wave length Major Mott has made records in the last few months for his station never equalled by 5,000-watt stations on the Pacific coast. Every known record for distance, per watt, power input, has been broken.

Not to be outdone the studio cat and canary indulge in a mild argument for honors. "My purr has tickled the ears of listeners in in Vancouver, B. C. far up the Alaskan Coast, and as far east as Detroit," proclaims Tabby.

The canary trills back, "That's nothing! My musical voice has been heard in New York City, in Portland, Maine, and in Mexico City. So there!"

The Major is free to speak on Radio matters but he is most reticent about his other accomplishments. Quite without his knowledge the author visited the library and discovered in Who's Who that Jordan Lawrence Mott, 3d, received his A. B. at Harvard in 1905 about which year he began the writing of short stories, most of which have the outdoor setting or tang of the sea and have appeared in leading magazines. In book form Major Mott has to his credit, Jules of the Great Heart, The White Darkness, To the Credit of the Sea, and Prairie, Sea and Snow.

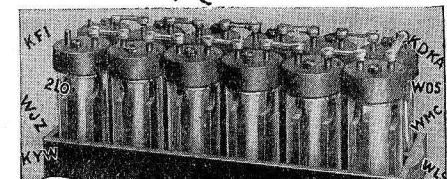
It is a question whether Lawrence Mott's successes in the world of literature have ever brought him the satisfaction or feeling of attainment he must daily experience from sending his messages to nearly every country of the globe.

All people do not read. Radio reaches many thousands of persons who are not readers. It is a field in which one's auditors may be limited only by the boundaries of the world itself. Major Lawrence Mott with his non-commercial broadcasting station has made friends in legion.

Overlooking the famous Avalon Bay on Catalina Island, California, is a little chalet housing the now already famous Wrigley chimes, said to be exact duplicates of those in Westminster Abbey and the largest in this country.

The average weight of the chimes is 600 lbs. each. The entire action is electrical with a solenoid action, each solenoid weighing an additional 150 lbs., and the chimes are played from consoles located in the home of Wm. Wrigley, the
(Continued on page 30)

FOR CLEAR, QUIET "B" POWER



RADIO Storage "B" Battery

12 Cells 24 Volts Lasts Indefinitely—Pays for Itself Economy and performance unheard of before. Recharged at a negligible cost. Delivers unfailing power that is clear, pure and quiet. Approved and listed as Standard by leading Radio Authorities, including Pop. Radio Laboratories, Pop. Sci. Inst. Standards, Radio News Lab., Leifox, Inc., and other important institutions. Equipped with Solid Rubber Case, an insurance against acid and leakage. Extra heavy glass jars. Heavy rugged plates. Order yours today!

SEND NO MONEY Just state number of batteries wanted and we will ship day order is received. Extra offer: 4 batteries in series (96 volts), \$10.50. Pay expressman after examining batteries. 5 per cent discount for cash with order. Mail your order now!

WORLD BATTERY COMPANY
1219 So. Wabash Ave., Dept. 76 Chicago, Ill.
Makers of the Famous World Radio "A" Storage Battery.
Prices: 6-volt, 100 Amp. \$11.25; 120 Amp. \$13.25; 140 Amp. \$14.00.
All equipped with Solid Rubber Case.

World STORAGE BATTERIES
Set your Radio Dials at 210 meters for the new 1000 watt World Storage Battery Station, WSGC, Chicago. Watch for announcements.
KOKA-WFAF-WGN-WJS-KHD-KGO-KFAF-WOYC-KOKE



Oh boy

KESTER
Rosin Core
Radio SOLDER

Sure! is Safe and Simple

APPROVED BY
RADIO ENGINEERS

MANUFACTURED BY
CHICAGO SOLDER COMPANY
4229 Wrightwood Ave.,
Chicago, U. S. A.

Originators and World's Largest Manufacturers of Self Fluxing Solder
YOUR DEALER CAN SUPPLY YOU



(7) HARMONY GIRLS
These Pictures Are 11 x 14

Photogravures of Your Favorite Artists

GALLERY OF RADIO STARS

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. Radio Fans will be able now, by this very special offer, to have pictures of their favorite artists and announcers before them when they listen in.

Select Your Favorites from the Gallery of Radio Stars

- | | |
|---|--|
| 1 Wendell Hall, king of ukulele ditties | 20 Vincent Lopez, No. 1 Pennsylvania orchestra |
| 2 Graham McNamee, 1925 Gold Cup announcer | 21 E. L. Tyson, pleasing voice at WWJ |
| 3 Jack Little, popular wandering balladist | 22 Art Gillham, "The Whispering Pianist" |
| 4 Billy B. Van, the Sunshine Man | 23 Harry Ehrhart, "Dream Daddy" of WLIT |
| 5 Coon-Sanders' Original "Nighthawks" | 24 Correll and Gosden of "Kinky Kids Parade" fame, at WEBB and other stations. |
| 6 George Hay, 1924 Gold Cup announcer | 25 Norman Brokenshire, popular at WRC, WJZ |
| 7 Ford and Glenn, Lullaby Boys of WLS | 26 Jane Novak, Blues Singer of Twin Cities, WCCO |
| 8 "Roxy" Rothafel of WEAF chain fame | 27 Jean Sargent, the original, now at WHT |
| 9 The Hired Hand, famous "Substitute Announcer" of WBAP | 28 Ralph Emerson, popular organist at WLS |
| 10 Bob Emery, Big Brother of WEEI | 29 Edna Adams, of KPRC |
| 11 "Bill" W. G. Hay, ex-KFKX, now of WLIB | 30 Pat Barnes, vaudeville announcer at WHT |
| 12 Happiness Boys, jovial singers of WEAF | 31 Walter Wilson, "Uncle Bob" of KYW |
| 13 Lambdin Kay, "Little Colonel" of WSB | 32 Ray-O-Vac Twins, known country-wide |
| 14 Leo Fitzpatrick, "Merry Old Chief," WJR | 33 Art Linick, KYW's Mrs. Schlagenhauer |
| 15 Henry Field, 1925 Gold Cup runner-up | 34 Fred Hamm of WTAS, now WLIB, fame |
| 16 Al Carney, organ favorite at WHT | |

Suitable for Framing or Placing in Your Album

Send Coupon Now

Your Radio set gives you these voices. These pictures add very much to your complete entertainment.

ACT TODAY
RADIO DIGEST PUBLISHING CO.
510 N. Dearborn St., Chicago, Ill.

COUPON NO. 24

This coupon entitles the holder to one photogravure selected from the Radio Digest Gallery of Radio Stars when accompanied by ten cents to pay the cost of mailing and postage. Three consecutively numbered coupons entitle the holder to three photogravures when accompanied by 25 cents. Remittance must accompany the coupon. Cash at your risk. Add 5 cents to personal checks for exchange.

Order by Number.....

Concert Singer on Air To Demonstrate Voice

Introduces Self to Patrons on Ten Station Chain

NEW YORK.—Something new in the method of presenting concert stars to local managers was introduced recently, when Concert Manager Arthur Judson presented Irving Jackson, American baritone, through a chain of ten leading broadcasting stations.

Although well known abroad where he has been singing for several years, Mr. Jackson is not yet known to his native country. His home is in Boston.

In order to book a tour for him as soon as possible, his manager, Mr. Judson, arranged for a network of broadcasting stations to carry Mr. Jackson's voice simultaneously so that concert patrons might write to Steinway hall, here, and indicate whether or not they would like to hear the artist on their concert series next season.

Stations which carried the broadcast were WEAJ, WTAM, WSAJ, WOC, KSD, WFI, WEEL, WCAE, WWJ and WCCO.

Children Greet Late Spring In Forest Cabin of WHAD

MILWAUKEE.—Spring, which has been so late in coming to all parts of Wisconsin this year, has tendered its greetings to listeners of WHAD here through the medium of fifty little voices singing in the Children's Hour program from WHAD's Forest Cabin.

It is to the children of the Bartlett Avenue school, Milwaukee, that the privilege of heralding that happy time was given. These little choristers, ranging in ages from ten to fifteen and from grades five to eight, told their story of the "Coming of Spring" with a little cantata in which they depicted the birds, the flowers, raindrops, the southwind and the sunshine. The "Spirit of Spring," impersonated by little Miss Maxine Randall, called upon the violets, daisies and bluebells, the southwind, raindrops and sunshine, and listened to their song.

Children between the ages of six and sixteen come to the Forest Cabin of WHAD each Saturday and offer children's entertainment for children.

GOLD CUP AWARD RACE

(Continued from page 2)

CKY, who has been leading since the start of the contest, more than doubled her total number of votes in the past two weeks. Hooper of CKCK and Wright of CNRV displayed some action, but not enough to threaten the position of the fair leader. The standing is:

1. Lillian Shaw, CKY (1).....4,273
2. Bert Hooper, CKCK (2)..... 831
3. H. C. Fricker, CKCL (3)..... 665
4. Geo. A. Wright, CNRV (4)..... 396
5. C. W. Darling, CFCF (5)..... 104

As a reward for saving consecutively numbered ballots and casting them at one time for the same candidate, a bonus vote, with size depending on the number in consecutive order, is credited to that candidate.

Each of these ballots will count for one vote when sent in separately. You can hold these ballots until you have four that are consecutively numbered and when they are sent in, a bonus of eight votes or total of twelve will be granted.

The larger number of consecutive ballots submitted, the greater is the bonus allowed. Eight consecutive ballots receive a bonus of twenty votes. Twelve consecutive ballots receive a bonus of thirty votes, or a total of forty-two votes. For a complete series of ballots, including one from each issue from March 27 to September 1, a bonus of fifty votes will be allowed.

Swollen Copyright Charges Block Broadcast of Opera

LONDON.—Owing to copyright difficulties, the British Broadcasting company has been unable, as intended, to broadcast the opera "Othello," which has just been given at the Royal Opera House here.

The copyrights on the latest Verdi operas, such as "Othello," "Falstaff" and "Aida," have not expired yet, and are held by an Italian syndicate which has the right to prohibit any performance. The syndicate demands a higher fee for the transmission than the B. B. C. can pay.

"Aida" was recently broadcast, but the syndicate has decided that not enough was paid for it then, and have raised the price. There is no longer any copyright over the earlier Verdi operas, such as "Il Trovatore" and "La Traviata."

WOAI INTRIGUES VETS

(Continued from page 6)

'Tis the Radio, Pete, and I have a grand one that I made myself with eight tubes in it. Won't ye come up and join me?"

"Now, I'll kiss the foot of Pat's pig if I'm not listenin' to the invitation of a gentleman after me own heart and I'm tellin' you that I'll accept with pleasure if you'll tell me the address I'm to go."

At 8 o'clock to the dot by the silver-ticker Jack carried on his hairy wrist Pete Cahill walked into the Downey flat on Green street and was introduced to the little mother. They went into the parlor where Jack exhibited the mysterious interior of his super-het with its interlacing of red, yellow and green strands and silver bulbs.

"And for why do you call the one at the end a 'power tube'?" asked Pete, "I see no difference between them at all."

"That's what I'm comin' to," Jack smiled with prideful superiority. "If ye'll just sit back comfortable and fill your pipe I'll connect you directly with San Antonio."

He hunched over from a low chair and turned the dials gently and deftly. In a moment a low murmuring drone suddenly flared up like a flame that has reached oil and into the room poured the rhythm and thrum of the Gebhardt Mexican Players over Station WOAI. Sweet and melodious it was as the natural born instinct of the Mexican player who alone knows how to produce in his own kind of a concert. They play regularly from this station under the direction of Jose Conrado Tovar, famous composer and pianist.

"'Tis more wonderful than I can express in words," sighed Pete, "and do you mean to tell me for the truth that this grand music comes through the air all the way from San Antonio to this very room?"

"Yes, 'tis the gospel truth, and if ye'll listen ye'll hear more that'll surprise you. And if you can't feel yourself transported to San Antonio there's something lacking in your sense of imagination. That's Mister J. G. Cummings, the manager, that you're hearin' now makin' the announcements. Sometimes it's Mister Oelkers or Otis Vaughan. But listen, this is good—the Mistletoe Melody Maids."

The two "old" vets puffed at their pipes in silence while southern folk songs rippled out of the screened cabinet from voices that must have been of those who

R HERE

EVEN BETTER PROMISE FOR COMING YEAR

They were no longer on the old regiment ground without other cadences of this border days.

It was a wonderful e from the bulletins of world ever.

That's what I'm comin' to," Jack smiled with prideful superiority. "If ye'll just sit back comfortable and fill your pipe I'll connect you directly with San Antonio." Even the Joske Story Lady varied her usual place on the program from the afternoon to contribute an anecdote of interest to grown-ups as well as to the children. Who was she? Ah, a subject of much speculation between Jack and Pete, who would like to have believed that she was the same girl who came to sing to the "bhoys in the camp" some ten years ago, except, but you couldn't tell without seeing the face.

This may seem a long way around to tell about Station WOAI but it gives a view of its importance from a distance because in the main the story is true. A letter from Mrs. Gilbert Lang of the WOAI staff says, "WOAI is heard in every state in the Union and from the mail it seems to be a very popular station in the North as far as Canada and Alaska. Perhaps our most distant record is a letter from Johannesburg, South Africa, telling us they had heard a concert from WOAI."

Norway Builds Superstation

LONDON.—The Norwegian government has placed an order with a British firm for a broadcasting station which will equal in power the largest of the German stations. The set will be capable of feeding the aerial with twenty-five kilowatts. This means that the new station will be nearly as powerful as 5XX, the B. B. C.'s high-power station.



New Jewell Pin-Jack Voltmeter

No. 135-A




An "Instrument Is Necessary"

if you wish to get the best out of your set.

The life of tubes burned above their rated voltage is impaired. If burned below their rating, reception will be poor.

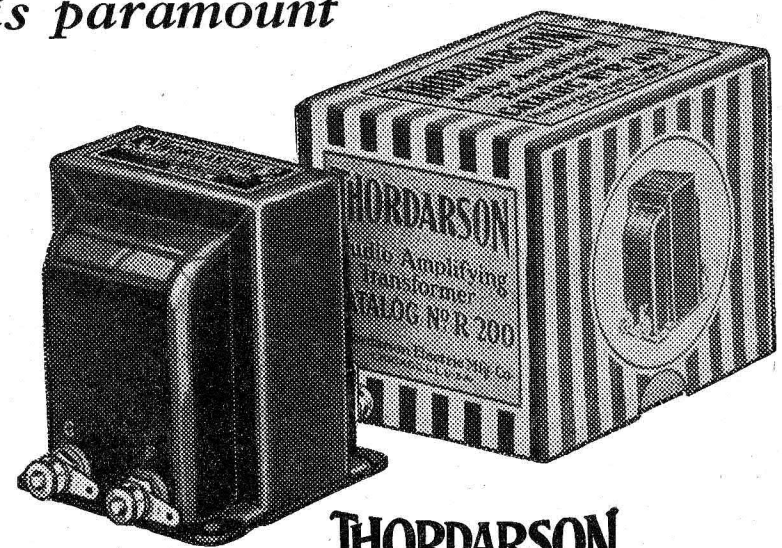
Send for "JEWELL" circular No. 1015 which fully illustrates and describes the new "JEWELL" high resistance pin-jack voltmeter—No. 135-A.

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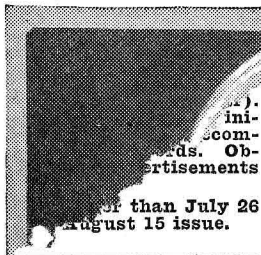
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E PRINTS

NO MORE BATTERIES—Build "A" and "B" eliminator—operates any set on AC or DC, no hum, satisfaction guaranteed. Complete plans, \$2. Engineers' Service Company, 25 Church St., New York.

Portable Super-Het Actual Size Template for 8-tube Super using 199 type tubes. Complete building instructions appearing in First and Second June issues of Radio Digest. 25 cents for template—30 cents for copies containing instructions. Book Dept., Radio Digest, 510 North Dearborn Street, Chicago.

Complete instructions for building the Simplest Possible Super-Het. 16-page booklet containing instructions for building and an exact size template for drilling panel and base. How to build a loop. 35 cents. Book Dept., Radio Digest, 510 N. Dearborn St., Chicago.

We still have a limited number of the actual size templates and blue prints for the following sets which have been described in Radio Digest; Super-Torodyne, 8-tube super-het; Fireside, 6-tube radio frequency; Grand Prix, 8-tube super-het; Counterphase, 6-tube radio frequency; DX Seven, 7-tube super; 4 Filter Super and the Straight-8, an eight tube super-het. Each set, 25 cents. Book Department, Radio Digest, 510 N. Dearborn St., Chicago.

DOGS

Beautiful registered bull pups, \$15. Bull-dogs, 501 Rockwood, Dallas, Texas.

FOR SALE

Here is your opportunity to obtain a real good buy on 1/4-HP, 110-volt, 60-cycle, single phase, AC, enclosed dust proof new electric grinders and buffers, 6-inch emery wheel on one side and 6-inch buffer on the other, with cord and plug, at a low price of \$15.75 each. Special price on brand new 1-KW or 1000-Watt, 32-volt, 1150 speed, late design, Westinghouse light and power generators with pulley, ready to run at \$48.00 each. Largest dealers in new and used motors and generators in the Northwest. Send us your inquiries. General Distributing Co., Security Storage Bldg., Duluth, Minn.

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.

Get Hoff's Radio trouble finder. Particulars for stamp. F. Nasstrom, 474 Midway Ave., Pontiac, Mich.

PATENT ATTORNEYS

PATENT ATTORNEYS

PATENTS. Booklet free. Highest references. Best results. WATSON E. COLEMAN, Patent Lawyer, 644 G Street, Washington, D. C.

RADIO

600 Mile Radio \$2.95. 200,000 satisfied customers already. Don't require any batteries nor tubes. Write today. Picture and particulars Free. Crystal Radio Company, Wichita, Kansas.

Play your Phonograph thru your Radio. Results equal to New Electric Phonographs. Inexpensive hook-up. Complete Plans \$1.00. Mogle & McClelland, Dept. A, Winfield, Kansas.

Closing out all of my Radio stock. 200-ohm potentiometer with slider knob and dial, 10 cents; Howard rheostats 6 1/2, 6 3/4 or 25-ohm, 75 cents; Filkostats, 50 cents; set eight lettered binding posts, 25 cents; variable condensers with dial and vernier, 13-plate, \$1; 23-plate, \$1.50; 4-inch black dials, 3-50 cents; 3-inch, 3-35 cents. Bronsteins Pharmacy, 4600 Lincoln Ave., Chicago.

SALESMEN WANTED

A Paying Position Open to representative of character. Take orders shoes-hosiery direct to wearer. Good income. Permanent. Write now. Tanners Shoe Mfg. Co., 7-707 C St., Boston, Mass.

SHEPHERD OF THE AIR

(Continued from page 4)

remained. He took the ferry to San Francisco and called at the office of the big broadcasting station and found a warm welcome waiting for him. Would he take the orders of a Shepherd of the Air and broadcast the divine message to the shut-ins who could not attend regular church services?

"Go preach the gospel to all the earth." No man ever received a clearer, more definite call than this. And thus the little Baptist church in Oakland and its pastor were lifted up in the heavens so that the miner in the rocky uplands and the herdsman in the valley could hear and join in worship, as they actually did.

This relationship continued for some time. The postmen brought mail from grateful listeners by the bagful. Some were tear stained from hearts that had been breaking from solitude and loneliness. Others had been brought back from the by-paths. It was a great work for the Master's vineyard.

Then came a fatal day—a black and crushing day for the pastor and his fellow workmen in the little Baptist church of Oakland. Somebody had raised a forbidding hand. The weekly sermons were no longer to be included in the regular programs of the great broadcasting station. All the multitude of hopeful listeners for religious comfort must be abandoned.

There was consternation as the Rev. Phillips called his flock together and explained the situation. What could be done about it? A broadcasting station was such a tremendous proposition; costly and difficult to understand technically. But somehow from unexpected sources outside the church the way seemed open. Money donations began coming in with an initial contribution of \$2,500 from a man in a distant town who heard the voice of the Shepherd of the Air.

A broadcasting station for the Tenth Avenue Baptist Church! Others took up the slogan. The fund grew. Emissaries went to Washington. The call letters KTAB were obtained and in a very short time the little church on the corner at Oakland housed its own broadcasting station and today the Rev. Phillips sends out his Sunday service to an audience that has become greater than ever before.

But a church in these days must be broader than in the days of old. It must supply more than the spiritual bread of a Sunday service. And so KTAB during the week provides programs of wholesome entertainment. Ada Morgan O'Brien has come from one of the older San Francisco stations to direct the musical programs. She selects that which is good as well as enjoyable. Recently in cooperation with the pioneer Oakland Post-Enquirer she put on a special world-wide program in which KTAB proved its far reaching power. Letters were received from Australia and other countries touched by the

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R. B. SPECIALTY COMPANY

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CINCINNATI, OHIO

Pacific stating that they had heard this specially arranged program.

During the week the station is operated by the Associated Broadcasters of Oakland. It speaks for the municipality and on through the ether waves into thousands of distant points goes the slogan, "Oakland the Industrial Capital of the West."

Who can really tell the whys and wherefores of outstanding events? What mysterious way performed the wonder of lifting a comparatively obscure little church into such a great sphere that it's voice literally spans the Pacific? If you can't answer this problem, put it up to the Rev. Geo. W. Phillips; he will tell you.

KFWO ON TOP OF WORLD

(Continued from page 28)

chewing gum magnate, who owns Catalina Island and whose California home is on the opposite side of Avalon Bay, as well as from the offices of the Catalina Island company located near the pier where the steamships dock. The home of Zane Grey, well-known writer of western stories, is just behind the chalet.

The broadcasting of the chimes is done by KFWO, the 250-watt station operated by Major Lawrence Mott of the Signal Corps, and is accomplished by a cleverly devised switching arrangement invented by Engineer Hansen of the Pacific Telephone and Telegraph company.

The chimes are broadcast daily 6 to 6:30 p. m., by KFWO on its frequency of 1420 kcys. or 211.1 meters with 250 watts power, an arrangement that has proven very satisfactory for long distance broadcast work, in which Major Mott is mainly interested and for which Catalina Island offers an ideal location, being entirely surrounded by water and away from all power line disturbances, artificial and natural shields.

WHEN IT DOESN'T WORK

(Continued from page 8)

They tell me that my receiver has a range from 200 to 600 meters. How far does that mean that I should be able to receive? The wave length range of 200 to 600 meters has no bearing on the distance which one may receive, but refers to the class of stations to which your receiver will tune. In other words, it means that you should be able to receive stations which broadcast on wave lengths between 200 and 600 meters.

Very often my loud speaker will begin to howl. This noise starts with a low howl and gradually increases until it drowns out the reception. Is the trouble in my receiver or the tubes used? In most cases the trouble is not chargeable either to the tubes or the wiring of the receiver but lies in the construction of the loud



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Solid Rubber Case
an assurance against acid and leakage. Order Now. We ship same day—by express C. O. D. subject to your examination on arrival. Extra Offer: 5% discount for cash in full with order. ACT TODAY!

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speaker. This is particularly true of many cone type speakers. It is caused by the paper cone vibrating at a given wave length, these vibrations being in tune with the diaphragm or metal container of the speaker mechanism. As such vibrations are reflected from the cone to the speaker mechanism, they are re-amplified. In a succession of such reflections a state of resonance is set up which causes the howling. There is no cure for this condition except that the speaker mechanism might be readjusted so that it would have a fundamental frequency varying from that of the cone.

Why is it possible for me to receive nearby stations on either of two dial settings? The reason for this is that at times one is likely to be able to tune in a station, especially one not distant, on one of its harmonics. As a definition of harmonics entails a story within itself, a simple explanation will be given as follows. A harmonic consists of a sympathetic frequency or side tone frequency usually carrying the overtones.

SIR OLIVER'S N CIRCUIT

(Continued from page 9)

Speaking on the subject of radiation, we quote Sir Oliver Lodge as follows: "It is a fact that from an oscillating circuit true radiations or waves are not flicked off until a distance of a quarter of a wave length is reached. Within such distance the energy pulsates to and fro, out and in. A little more goes out than comes back again, but within that quarter wave length distance we get pulsating energy decidedly greater than wave emission energy—a sort of inductive effect that is superseded by waves at greater distances. When two aerials are so close as to feel this pulsation, they are bound to react upon one another to some extent. Such action is not true radiation and should not be so stigmatized."

WHN Gives Eucharistic Congress

NEW YORK.—Eastern Radio fans were assured hearing the highlights of the International Eucharistic congress by Station WHN who tied in on a wire relay from WEBB at Chicago.



45 volts, \$5.25; 90 volts, \$10.00; 112 1/2 volts, \$12.50; 135 volts, \$14.75; 157 1/2 volts, \$16.80. Truly the biggest buy today. Easily charged on any current including 32-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 non-refund 30-day trial offer with complete refund if not thoroughly satisfied. Further guaranteed 3 years. Knockdown kits at great savings. Complete "Hawley" "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, 817 Washington Ave., Danbury, Conn.

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The main point of difference between new sets to be marketed this Fall and sets in use is in greatly improved and refined audio frequency amplifiers.

You can easily improve the audio systems of present sets and bring them up to date. Our book will teach you how.

Four years research are embodied in our new 40 page book covering all systems of audio frequency amplification. The good and bad points of each system are clearly described and everything is illustrated to help readers bring their sets up to date.

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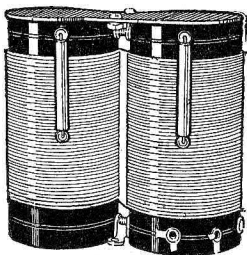
Corrected Every Issue

Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location		
United States Stations by Wave Lengths																					
202.6	1,480	500	KFXB	Big Bear Lk., Cal.	232.4	1,290	10	KFEY	Kellogg, Idaho	254.1	1,180	500	WEAI	Ithaca, N. Y.	275.1	1,090	500	WJ	W. J.		
		10	WEHS	Evanston, Ill.			500	KFON	Long Beach, Cal.			500	WFBR	Baltimore, Md.			500	WKY	W. J.		
		10	WBS	Elizabeth, N. J.			10	WDBZ	Kingston, N. Y.			100	WHBC	Canton, Ohio			100	WLAP	W. J.		
204	1,470	500	WABB	Harrisburg, Pa.	234.2	1,280	50	WBBQ	Memphis, Tenn.			100	WIAS	Burlington, Ia.			100	WMAZ	W. J.		
205.4	1,460	50	KFVD	San Pedro, Cal.			100	WJBC	La Salle, Ill.	256.3	1,170	100	KFIQ	Yakima, Wash.			5,000	WORD	Batavia, I.		
		10	KFXD	Logan, Utah			100	WQAC	Amarillo, Tex.			500	KFUS	Oakland, Calif.			100	WPAK	Agr. Col., N.		
		50	KFYF	Flagstaff, Ariz.			100	WQBC	Kansas City, Mo.			200	WABO	Rocheater, N. Y.			250	WSBT	South Bend, I.		
		10	KFYF	Oxnard, Calif.			500	WQBC	Rh'm'd H., N. Y.			100	WABO	Rocheater, N. Y.			500	WSMK	Dayton, Ohio		
		30	WCBR	Pvdc., R. I. (Pth.)			100	WQBC	Houston, Tex.			1,000	WWSW	Chicago, Ill.			100	WWL	New Orleans, La.		
		100	WFRL	Brooklyn, N. Y.	236.1	1,270	10	KFLU	San Benito, Tex.												
		50	WIBX	Utica, N. Y.			250	KFOO	Salt Lk. Cy., Utah												
		50	WPDQ	Buffalo, N. Y.			15	KFVG	Independence, Kan.												
206.8	1,450	250	KFWM	Oakland, Calif.			100	WQBC	Kansas City, Mo.												
		50	KGTT	S'n F'no, Calif.			500	WQBC	Rh'm'd H., N. Y.												
		50	WABW	Wooster, Ohio			100	WQBC	Camden, N. J.												
		50	WJBA	Joliet, Ill.			100	WQBC	Collegeville, Minn.												
208.2	1,440	250	KNRC	H'wood, Calif.			100	WQBC	Rh'm'd H., N. Y.												
209.7	1,430	10	KFYO	Texarkana, Tex.			100	WQBC	Madison, Wis.												
		100	KSMR	Santa Maria, Cal.			100	WRMU	Rh'm'd H., N. Y.												
		500	WBNY	New York, N. Y.			50	WTAD	Carthage, Ill.												
		30	WCBR	Providence, R. I.	238	1,260	15	KFBS	Trinidad, Colo.												
		100	WCVS	Fayett, R. I.			100	KFCB	Phoenix, Ariz.												
		30	WIBH	New B'd'fd, Mass.			100	KFWU	Pineville, La.												
		1,000	WSBC	Chicago, Ill.			10	KFYJ	Houston, Tex.												
211.1	1,420	50	KFWC	S. Ber'dino, Cal.			500	KMTR	Hollywood, Cal.												
		250	KFWO	Avaton, Calif.			200	WHEC	Petoskey, Mich.												
		100	WJBU	Lewisburg, Pa.			10	WHBN	St. Pet's'g, Fla.												
212.6	1,410	50	KFWV	Portland, Ore.	239.9	1,250	10	KFHL	Oskaloosa, Iowa												
		100	WMAL	Wash'ton, D. C.			10	KFLX	Galveston, Tex.												
		500	WMSG	New York, N. Y.			100	KFUM	Colo. Spgs., Colo.												
214.2	1,400	250	KFWF	St. Louis, Mo.			500	KFVE	Un'sity City, Mo.												
		15	KFXR	Okl. City, Okla.			10	KFVH	Houston, Tex.												
		150	WCLS	Joliet, Ill.			1,000	KTAB	Oakland, Calif.												
		100	WBBB	Joliet, Ill.			100	KZM	Oakland, Calif.												
215.7	1,399	50	KFCB	San Diego, Calif.			100	WABQ	Haverford, Pa.												
		50	KFGW	N. Bend, Wash.			50	WDAY	Fargo, N. D.												
		10	KFXJ	Colorado (Pth.)			250	WEAB	N. Pl'm'd, N. J.												
		50	WBBZ	(Portable)			500	WKAF	Milwaukee, Wis.												
		20	WHBM	Chicago, Ill.			500	WMAZ	Macon, Ga.												
		100	WHBW	Philadelphia, Pa.			500	WSPC	State Col., Pa.												
		50	WIBJ	(Portable)			100	WSSK	Bay City, Mich.												
		10	WIBM	(Portable)			100	WSSH	Boston, Mass.												
		100	WKBG	Ch'go, Ill. (Pth.)			15	WTAR	Norfolk, Va.												
		100	WPRC	Harrisburg, Pa.			50	WTAZ	Lambert's, N. J.												
		250	WRST	Bay Shore, N. Y.			50	KFJR	Portland, Ore.												
217.3	1,380	50	KFAF	San Jose, Calif.			50	KFMW	Houghton, Mich.	263	1,140	50	KFJR	Portland, Ore.							
		100	KFQU	Alma, Calif.			500	KFNF	Shenandoah, Ia.			50	KFMR	Sioux City, Ia.							
		500	KFKB	Chicago, Ill.			1,000	KTRB	Portland, Ore.			100	KFUT	S. L. City, Utah							
		5,000	WOK	Chicago, Ill.			500	WAAM	Newark, N. J.			500	KFWA	Ogden, Utah							
218.8	1,370	10	KFJC	Junct'n City, Kan.			500	WABR	Toledo, Ohio			1,000	WABC	M'd H's'te, Mass.							
		50	KFRV	Olympia, Wash.			100	WCBW	Oxford, Miss.			50	WDAV	Fargo, N. D.							
		10	WHBU	Anderson, Ind.			100	WCBW	Oxford, Miss.			250	WEAB	N. Pl'm'd, N. J.							
		50	WBI	Flushing, N. Y.			1,000	WOOD	Grand R'ds, Mich.			500	WKAF	Milwaukee, Wis.							
		250	WBI	Red Bank, N. J.			50	WTAP	Plainfield, Ill.			500	WMAZ	Macon, Ga.							
		50	WSVS	Buffalo, N. Y.			500	WWAE	Plainfield, Ill.			1,500	WSPC	State Col., Pa.							
220.4	1,360	50	KFUU	Oakland, Calif.			100	WDAG	Amarillo, Tex.			100	WSSK	Bay City, Mich.							
		5	KJBS	San Fran'co, Cal.			500	WDAG	Amarillo, Tex.			100	WSSH	Boston, Mass.							
		100	WIBW	Logansport, Ind.			50	WDGJ	Minapls, Minn.			100	WTAR	Norfolk, Va.							
		500	WQAA	Parkeshurg, Pa.			50	WDBZ	Savannah, Ga.			15	WTAZ	Lambert's, N. J.							
222	1,350	500	KZRB	Manila, P. I.			100	WQAM	Miami, Fla.			50	WQBC	Kansas City, Mo.							
		100	WBBW	Norfolk, Va.			100	WQAV	Yellow Spgs., O.			500	WQBC	Kansas City, Mo.							
		100	WBS	Takoma Pk., Md.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		100	WCMA	Culver, Ind.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		500	WCOA	Pensacola, Fla.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		20	WHBD	Bellef'taine, O.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		100	WHBF	Rock Island, Ill.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		50	WIBG	Elkins Park, Pa.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
		20	WIBU	Poynette, Wis.			500	WQAV	Yellow Spgs., O.			100	WQBC	Kansas City, Mo.							
223.7	1,340	100	KFBL	Everett, Wash.			100	KFBL	Sacramento, Cal.			500	KFEC	Portland, Ore.							
		10	KFGP	Iowa City, Iowa			100	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		100	KFUR	Ogden, Utah			100	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		50	KFVS	C'pe Gir'd'u, Mo.			250	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		10	KFVS	Charlotte, N. C.			10	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		50	WKAV	Laconia, N. H.			10	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		10	WNRC	Gr'nshoro, N. C.			1,000	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		250	WODA	Paterson, N. J.			50	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		100	WRAF	Laporte, Ind.			1,000	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
225.4	1,330	10	KFGQ	Boone, Iowa			100	KFBL	Portland, Ore.			100	KFBL	Portland, Ore.							
		10	KFIU	Juneau, Alaska																	

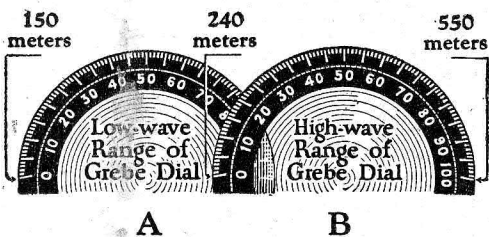
Quality Do You Desire Most?



e Colortone
Reg. U. S. Pat. Off.



Grebe Binocular Coils
Reg. U. S. Pat. Off.
and Low-Wave
Extension Circuits



The high-wave reception range of the Grebe dial (B)—from 550 down to 240 meters—equals the practical tuning range of the usual receiver. The low-wave range of the Grebe dial (A) provides additional reception down to 150 meters.



"If you have fields and will not plow them, your barns will be empty."

If you want the best in radio and fail to buy the Synchronphase, you must blame only yourself.

Doctor Wu

MANY radio enthusiasts consider tone quality the most important characteristic of a radio set, with selectivity a close second; others reverse the order. But practically all agree that every set should be judged by the amount of tone quality and selectivity which it exhibits.

The Synchronphase possesses both these qualities in a remarkable degree, because of two exclusive Grebe developments—The *Colortone* and *Binocular Coils*.

The *Colortone* gives full control over the loud speaker, harmonizing it with the set and keeping the pitch right for voice or instrument. It also makes it possible to reduce, to a great degree, disturbances due to static and to suppress high-pitch frequencies caused by heterodyne interference of one station with another.

The *Grebe Binocular Coils* keep the set free from disturbing waves from undesired stations, giving an isolation that is unusual.

Ask your dealer to demonstrate all exclusive Grebe developments which make reception so remarkable

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

Factory: Richmond Hill, N. Y.

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

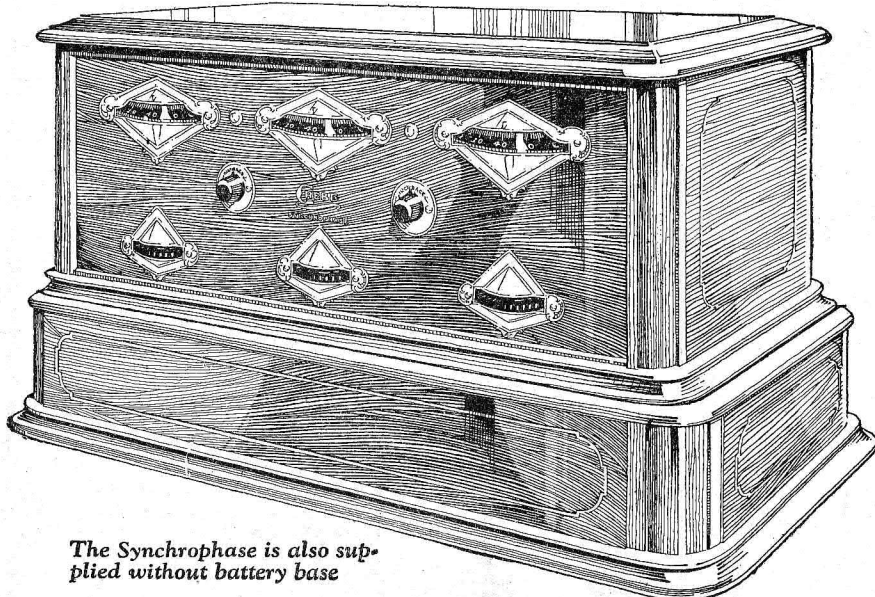
This company owns and operates stations WAHG and WBOQ.

THE GREBE SYNCHROPHASE

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



All Grebe apparatus is covered by patents granted and pending.



The Synchronphase is also supplied without battery base