New Lodge N Circuit; Trouble Chart



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

OFFICIAL BALLOT No. 11

Announcers' Contest

RADIO DIGEST THIRD ANNUAL GOLD CUP AWARD

| | P AWARD Editor, Radio Dige orth Dearborn Street, Chicago, | • | | |
|-------------|--|---------|---|-------|
| Please cree | dit this ballot to: | | | |
| | (Announcer's Name) | | all Letters) | •••• |
| | Signed | | | •••• |
| | Address | ••••••• | *************************************** | ••••• |
| 7 1h 92 | City | State | | |

EAST NEEDS PEP TO CAPTURE GOLD CUP

ARNOUX, MAY AND BROKEN-SHIRE 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.

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

the bonus votes which are explained in

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 WBAP, Phillips Carlin of WEAF and Peter MacArthur of WOC of WEAF and Peter MacArthur of WOC remain seventh, eighth, ninth and tenth respectively as before.

respectively as before.

Below tenth place climbs were made by Johnen 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 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

| sue if they were in the first twenty- | fiv(|
|---------------------------------------|------|
| 1. G. C. Arnoux, KTHS (1)33,73 | 39 |
| 2. Earl E. May, KMA (2)25,1 | |
| 3. N. Brokenshire, WJZ (3)24,1 | 10 |
| 4. C. Gaylord, WTAG (6)15,5 | 40 |
| 5. Pat H. Barnes, WHT (4)15,0 | |
| 6. A. S. Kyne, KMMJ (5)14,4 | 02 |
| 7. Henry Field, KFNF (7)11,2 | |
| 8. The Hired Hand, WBAP (8) 9,2 | |
| 9. Phillips Carlin, WEAF (9) 6,6 | |
| 10. Peter MacArthur, WOC (10) 5,4 | |
| 11. Louis J. Johnen, WLW (12) 3,9 | |
| 12. Gayle V. Grubb, KFAB (14) 3,7 | |
| 13. C. R. Randall, WSMB (11) 3,7 | |
| 14. R. W. Griffin, WHO (15) 3,6 | |
| 15. Lester Palmer, WOAW (13) 3,1 | |
| 16. Lambdin Kay, WSB (16) 2,4 | |
| 17. Jerry Sullivan, WQJ (17) 1,7 | |
| 18. Paul Johnson, WCCO (20) 1,7 | |
| 19. J. T. Schilling, WHB (18) 1,7 | |
| 20. E. Konecky, WOAW (25) 1,5 | |
| 21. Edw. B. Husing, WRC (21) 1,5 | |
| | 20 |
| | 02 |
| | 85 |
| 20. 21. 200 | 75 |
| Although the order has not changed | l f |

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

"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 contraito voice, very pleasing personality and other qualifications best appreciated when seen on the sands of Redondo Beach,

Very truly, G. L. K."

CONTENTS

near her home.

Radio Digest, Illustrated, Volume XVIII, Number 1, published Chicago, Illinois, July 15, 1926. Published semi-monthly on the first and fifteenth of each month by Radio Digest Publishing Co. (Incorporated), 510 N. Dearborn Street, Chicago, Illinois. Subscription rates yearly, Three Dollars; Foreign Postage One Dollar additional; single copies Fifteen Cents. Entered as second class matter May 3, 1926, at the post office at Chicago, Illinois, under the Act of March 3, 1879. Title Reg. U. S. Patent Office and Dominion of Canada. Copyright 1926 by Radio Digest Publishing Co. All rights reserved.

| hort Waves, by Marcella. | 2 |
|---|----|
| TAB, "Shepherd of the Air" at Oakland, Calif., by Harold P. Brown | - |
| litting on Top of the World at KFWO, by Nettie D. Pilcher | 5 |
| VOAI Intrigues Border "Vets" | 6 |
| Sure-Fire Stuff", Conclusion, by Harry Van Demark | 7 |
| f It Doesn't Work-Then? Trouble Chart and Hints, by the Technical Editor | 8 |
| ir Oliver's New N Circuit, by Milo Gurney | 9 |
| ditorials; Indi-Gest; Condensed by Dielectric | 12 |
| An Evening at Home with the Listener In; a Chart in Central Daylight Saving or Eastern Time Showing When to Listen for Stations | 14 |
| Women's Page; Women's Programs Index | 15 |
| Advance Programs for the Larger Stations, July 15-3116 to | 27 |
| Directory of Radiophone Broadcasting Stations; Part VI (Revised) | 31 |
| | |

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 WEAO, 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 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-BADIO 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.

Newsstands Don't Always Have One Left

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| Name |
| Address |
| Gity State |

SHORT WAVES

By Marcella

Marcella had a short vacation just be-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, yes, Frank Lane and Roy effilm of WOO, 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 KFJF. 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 Night-hawks and director of WDAF. Following hawks 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 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 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 Tuxedoes, has a wife, and a baby to spank (Mr. Fitzer forgot to put the comma after wife so it was inserted by Marcella). foreign parts. 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 drawling 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 about them; present occupation, teature 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 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 mem-ber present; and that his favorite Radio per 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," nother of his source has been published. 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 WEAF, 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 paigning for the victory of the announcer (Continued on page 15)

UNUSUAL RADIO SUMMER HERE

HONOR MARCONI FOR INVENTION OF RADIO

THIRTIETH ANNIVERSARY IS CELEBRATED IN ITALY

University of Bologna Plays Host to Famous Scientist—Townspeople 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 scien-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.

had never forgotten it, and many times, during his 86 journeys across the Atlan-tic, 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 talso 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 evenlng 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 workerster, mass.— Ratio 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.

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.

"The field of Radio along the develop-

"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

KNX Adds Two Pickups

LOS ANGELES.—Station KNX, "The Voice of Hollywood," has acquired two new remote controls by tieing 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 sumptious seaside club.

RADIO DROWNS OUT **EVIL DENTIST DRILL**

HICAGO.—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

GOOD RADIO QUARTZ IS HARD TO LOCATE

ASHINGTON, D. C.—An apparent scarcity in quartz, superinduced 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.

Morrls Leaf came to Hollywood in the guise of an artist commissioned by an links which employed a portable telephone eastern movie magazine to sketch forty transmitter. Mr. Sargent is president of portraits of famous screen celebrities. His task completed, he decided to remain, is himself a former open champion. R. falling under the lure of the sunny skies, palm trees and sandy beaches.

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

WEAO Handles Matches Played on Scioto Course

COLUMBUS, O. - America's greatest golf classic, the National Open tornament, July 8, 9 and 10, was broadcast to the ears of golf fans by WEAO, 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 Lee Henderson, WEAO'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.," "Tittle Red Riding Habit," "The Piper of Heidsick," "The Fisherman" and many others conned from the Arabian 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 recep-

tion during the next two months is excellent if the prophecies of scientists regarding the weather come true.

Everyone knows that Radio reception

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 conductive to such improved recep-

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 dur-ing his flight last year, and Byrd, flying

ing his hight 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 in June this year and has stated that in 1927 there will be a frost every month in the northeastern part of the American

Brown's Weather Forecast

Mr. Brown bases his forecasts on the

than 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

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:

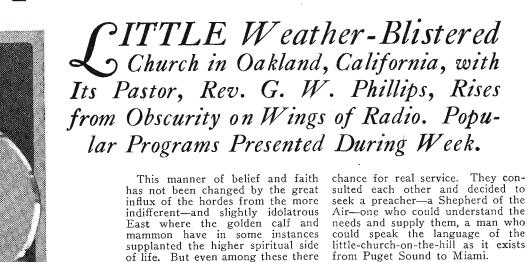
"While the attendance figures from all

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—"hepherd of the Air"



their "meeting-house" on the fourcorners 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 com-munion 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 jour-

are some who have come down from the Puritans and the Quakers and more of late the Methodists, Baptists, Presbyterians, Congregational-

ists and others who have established

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

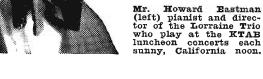
One day a stranger paused before the Tenth Avenue Baptist church of Oakland. It was just a little church. Obviously wealth had not paused here to display its pious opulence. The clapboards were warped and scaly with weather-shriveled paint. The eaves were rusty and the shingles were ruffled like the 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 they 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)

At the top in the big picture hat 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 Benioff, 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 Flayers who recently presented a story of the California gold rush days for the Oakland listeners.





UT 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 litted on the wings of tame until now it sings its message of salvation and redemption to the seven seas and the continents that touch thereon.

By HAROLD P. BROWN

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 micro-

phone 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

ALIFORNIA 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

E 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 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.

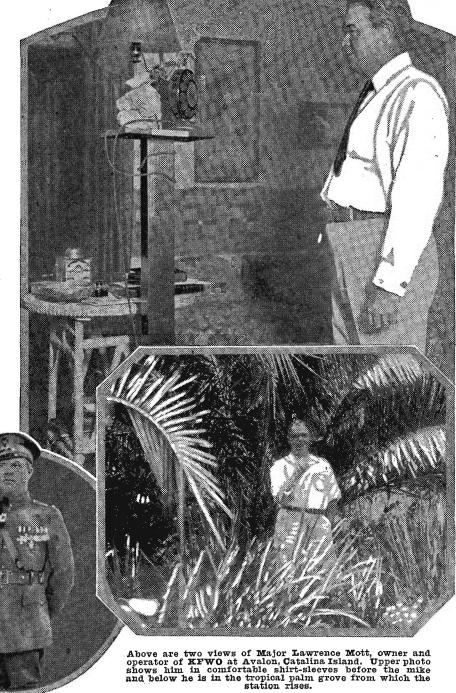
Surely Lawrence Mott is entitled to such a seat, because, from his island home he talks with the world. He has worked out Radio com-munication to its Nth degree. Tomorrow may bring something new again, this earth revolves so fast, but today his demonstrations stand

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 fa-mous Wrigley chimes are broad-cast by remote control each day over KFWO. Ma-jor Lawrence Mott (right) in his army uniform. Below. uniform. Below, Miss Frances Hew-Miss Frances Hew-itt and the KFWO cat whose purr has been heard in Alaska and the ca-nary whose trill has been heard in New York from Catalina.



OST broadcasting stations and their programs are as excellent as they are numerous, but here is one station with a few distinctive fea-

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. sideration 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 slo-"Katalina for Wonderful Outgan, "Katalina for Wondertul 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.

SING 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

N 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

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 bhoys 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

"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 exciting. 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 we ever been back to the border?'

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 operey house we were talking' about. You remember it leak Downey?"

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)

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



SURE-FIRE STUFF by HARRY VAN DEMARK

HEN 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 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 results commission for this

than your regular commission for this girl's act?" insinuated Clavering with a pointed look square into the eyes of the

ELL, I'm not saying that I am or that I'm 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-Then, if things shape up The booker shrugged a self-

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

"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 insay, 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

'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."

ing to twist me around her finger so I'd get her salary raised."

LL 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

"Oh, see here, Clavering, you think be-cause 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

HE 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

The rehearsal was in full swing Mon-The renearsal was in full swing Mon-day 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 pro-jectionist the cues for the "spots." "Hello!" Johnny greeted cordially, as

he saw Sheila leaning against the pro-scenium 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

me," she quickly added. "I'm only a poor atom, not worth one moment of your time." Her shoulders sank deyour time." Her snounders same de-jectedly 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 for myself. I-well, I oT—not for myself. 1—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

d. And now, tell me—"
"You'll have to excuse me," she interrupted; "it's my turn to rehearse." jerked a bundle of music from her port-folio, 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 ald from him-and then, there friend husband to consider. bands 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.

"DUT 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.

Shella stood with her back to the wall, a small chair in her hands, held out as if to restrain Jadwyn from approaching

The agent turned at the sound of the 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

shrank back into a partial crouch.

Johnny thrust Sheila aside and sprang Johnny thrust Shella 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, erked down the weak jaw, mottled the sensual face. They swayed from the shelf, stumbled backward over the chair, and priched to the foor rellier eyes and 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

"I'll get you for this, Clavering," spluttered Jadwyn. "I've been on to (Continued on page 28)



Doesn't

ADIO 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

Storage A batteries should only be tested with a hydrometer, while their specific gravity so measured should never be allowed to fall below 1275. 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 use storage betteries. 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

General Instructions

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

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

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

 $\mathcal{A}AYBEYOU$ SU Can Put Your Receiver Back in Condition 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

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

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 hairpin is convenient for lifting the springs.

Burned Out Transformers. These cannot be repoired well. Problems of the straight and 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

nected 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

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

- 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.
- 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.
- 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.
- 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.
- 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 to-

- gether, too many stages of transformer coupling, too high ratio of transformers, transformer connections reversed.
- 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.
- 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.
- 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.
- 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.
- 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.

Oliver's New No

CODGE, 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

HERE 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.

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

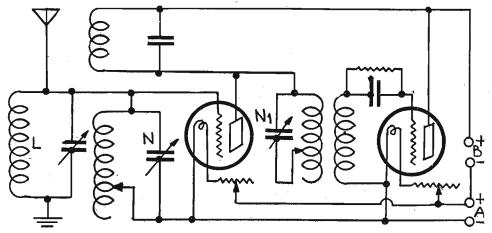


Figure 1. Sir Oliver Lodge's N circuit as applied to a tuned plate radio frequency amplifier and detector combination

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 interfer-

ence 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 improve-ment in both of these directions. This is particularly true when such a discovery is sponsored by so eminent an authority as Sir Oliver

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 blooping.

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.

pacity terminals, as well as a vary-ing 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.

pacity terminals, as well as a vary-

Figure 1 indicates the N circuit as applied to a tuned plate ampliand 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

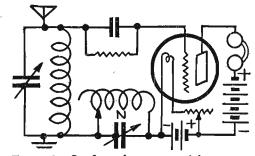


Figure 3. On first glance one might assume that this is a rejector circuit, but it isn't.

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,

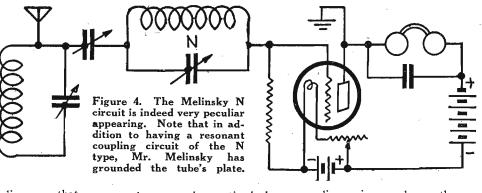
the energy transfer is small, although such voltages as are built up in the loop circuit N are such as to produce a pronounced effect in the plate circuit. Bear in mind that a vacuum tube is essentially a voltage operated device rather than a current operated one.

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.

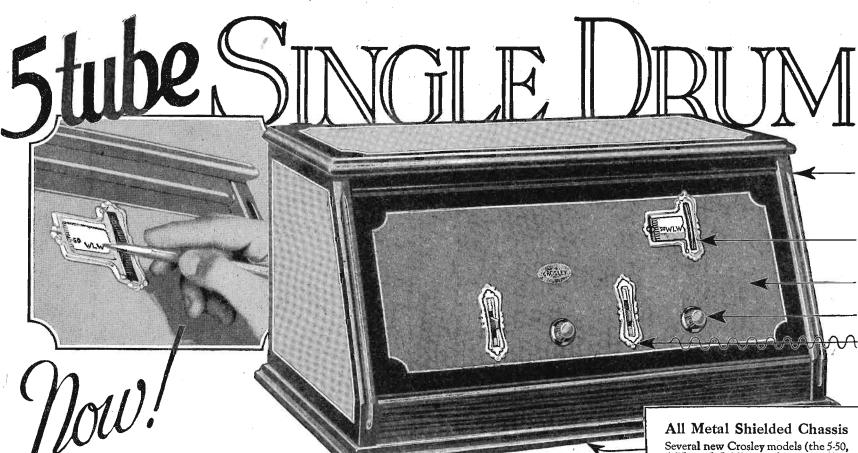
Figure 4 shows a circuit developed by M. M. Melinsky, who is associated with Sir Oliver. This includes a novelty of application typical of this gentleman's versatility. In addition to utilizing a resonant coupling of the N type, it will be noticed that the output plate circuit is grounded. In addition the supply batteries are left "floating." (Continued on page 30)



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 state-ment 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, the are obviously alternating end potentials at its ca-



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!

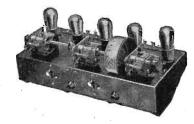
Crosley mass production reaches its highest peak in giving the world this incomparable value. So magnificent are the radio engineering achievements in this new model that the price is positively astonishing.

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.

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 progressivestep in advanced radio design. This feature has never been offered before insets of moderate price.



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.

POWER. **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 vadio 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

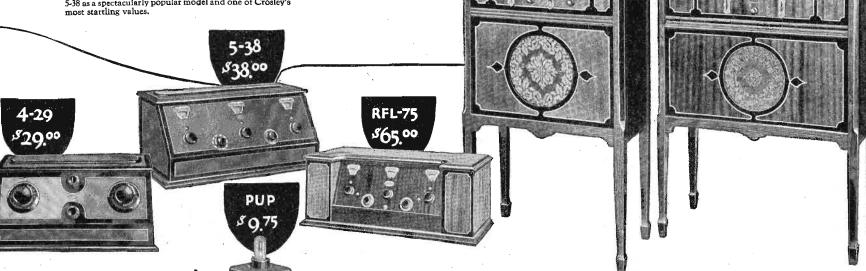
At \$90

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. MUSI-CONE built in—ample room for batteries and all accessories, 41 inches high, 30½ inches wide.

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

\$75.00

RFL-90 590.00



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-application. plause. 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

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. 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 hon-ored that the station should go to the expense of several thousand dollars just to send them tokens of

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 curtsey 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

A LTHOUGH 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 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 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
"Pa, let's go to the theater, Wife: You never go to a show."
"We live in a different age, dear,
I go on my Radio." Hubby:

Tuesday
"Mrs. Jones has asked us to play bridge,

"I'd certainly like to go."
"Oh! what's the use it bores me so,
I play on my Radio."

Wednesday
""" Hubby:

"I've tickets for the opera, dear."
: "Well, you'll have to go alone.
I'd ten times rather stay right here Wife: Hubby And hear through my telephone.'

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

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

Friday Wife:

"I have a BIG surprise for you, I've opened our piano. 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

Edator Indi-gest: There has been a agent hear in fairice celling Radio sets to the natives. He cells a nine Toob calld the Sooper Phoney Dine and it would kill you to lisstn over it. They is ceveral atachments 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 teath. The wires must have been twisted for a neybor tuck his teath out and putt them in the slot to be polished and when he twisted the dile to make it polish it pulled three teath 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 teath. 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 yournals. Ay read das little book what you send wid das set and ay do yust lak you say hut 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, ne 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. Av 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 necitation 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



Current Events



Condensed BY DIELECTRIC

If the early part of this summer had been sultry and as "staticy" 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 discourage generous emotions for the subject under discussion is sopranos—or, more particularily, 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 colshe 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 copes randered by a beritanger. 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

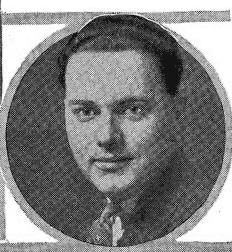
At right, "Uncle" John Daggett, director and announcer of KHJ, Los Angeles, is one of the West's most popular voices. In the Northwest it is "Dick" R. V. Haller, below, of Station KGW, Portland, Ore.







At left, Charlie Wellman, announcer at KFWB, has a large following. Below is the much adored Harold Isbell, now of KNX, 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

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, a weaking with him and a general expo-

is working with him and a general expo-sition 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 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 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 in-

quiries 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 be at the "mike" to tell about the

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 rela-tives as among the missing dead, Aimee Semple McPherson has returned to her flock at the Angelus temple and its broadcasting station, KFSG, little worse for the kidnaping adventure inflicted upon her except for the shock. Following her discovery and identifi-

cation in a hospital at Douglas, Ariz., she told a remarkable story of abduction sne 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

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

Station. "Hollywood's Distinctive 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 Governorship Aspirants on American Insurance 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, WEAF 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

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

Wednesday evenings: 11:00-12:00, Pelwednesday evenings: 11:00-12:00, Felham 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

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

Saturday evenings: 10:00-11:00, Ber 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.

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 trally 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 Fran-cisco, 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 organ-ized an efficient staff of experts to insure that San Francisco will maintain its standards of past years as an exposition

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 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, Utali, 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.

Air with Speeches at WCCO Chicago Stations Pick Up Legalized Illinois Fights

CHICAGO.-Boxing and Radio were associated recently when the first cham-pionship bout was staged since legalized fighting came back to Illinois. The preliminaries as well as the main 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

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

| Call | Location | Met. | Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|--------------------|---------------------------------------|----------------|------------------------------|--------------------------------|----------------------------|------------------------------|----------------------------|-----------------------------|----------------------------|
| AT9 | Fort Bragg, N. C. | 435 | Silent | 6:00- 7:00 | Silent | Silent | Silent | 8:00- 9:55 | Silent |
| CFCA CFCN | Toronto, Ont Calgary, Alta | 356.9 434.5 | Silont 12:00- 2:00 | 7:00-9:00 Silent | 6:45- 7:45 Silent | Silent Silent | 7:00-12:00 Silent | Silent 10:00-11:00 | Silent Silent |
| CJCA | Edmonton, Alta | 516.9 | 11:00 - 1:00 | 9:30-10:30 | 9:30-11:30 | 9:30-10:00 | 8:00-10:00 | 11:00- 1:00 | 10:00- 1:00 |
| CKAC CKCL | Montreal, Que Toronto, Ont | 356.9 | 6:15-10:30 6:00- 7:00 | 2:00-3:55 | Silent Silent | 6:15-10:30 6:00-10:50 | Silent Silent | 7:30-8:30 6:00-7:00 | Silent Silent |
| CKNC CKY | Toronto, Ont Winnipeg, Man | | | Silent 8:00-11:00 | 7:00-10:00 9:00- 1:00 | Silent Silent | Silent 8:30-12:00 | Silent 9:30-12:00 | Silent Silent |
| CNRO CYL | Ottawa, Ont Mexico City, Mex | | 7:30-12:30 Silent | Silent 10:24-11:54 | Silent Silent | Silent 10:24-11:54 | 7:30-12:30 Silent | Silent Silent | Silent 10:24-11:54 |
| CZE | Mexico City, Mex. | 350 | 9:24-10:24 | Silent | 9:24-10:24 | 9:24-10:24 | 9:24-10:24 | 9:24-10:24 | 9:24-10:24 |
| KDKA KFAB | Pittsburgh, Pa Lincoln, Nebr | | 6:30-9:55 6:30-11:30 | 4:00-8:45 5:00-12:00 | 6:30-9:55 6:30-11:30 | 6:30-12:35 6:30-11:30 | 6:30-9:55 6:30-11:30 | 6:30-12:00 Silent | 6:30-11:05 6:30-11:30 |
| KFDM KFH | | | Silent 8:00- 9:00 | 9:00-10:00 8:15- 9:15 | Silent 8:00- 9:00 | 9:00-11:00 8:00- 9:00 | Silent 8:00- 9:00 | Silent 8:00- 9:00 | 9:00-11:00 8:00- 9:00 |
| KFI | Los Angeles, Calif. | 467 | 9:00-6:00 7:00-2:30 | 7:00-2:00 3:30-12:45 | 9:00-2:00 | 9:00- 2:00 7:00-11:45 | 9:00-2:00 | 9:00-2:00 | 9:00-2:00 |
| KFJF KFKX | | 288.3 | 6:30-7:30 | Silent | 7:00-11:45 6:30-12:00 | 6:30-9:00 | 7:00-11:45 6:30-12:00 | 7:00-11:45 6:30- 9:00 | 7:00-11:45 6:30-12:00 |
| KFNF KF0A | Shenandoah, la Seattle, Wash | 263 454.3 | 8:00- 1:00 12:30- 2:00 | 3:30- 9:30 Sllent | 8:00-10:00 10:00- 1:00 | 9:00-10:00 | 8:00-10:00 10:00- 1:00 | 8:00-10:00 Silent | 8:00-10:00 9:00- 2:00 |
| KFON | Long Beach, Calif. | 232.4 | 9:30-3:00 | 9:30-1:00 4:00-9:30 | 9:30-3:00 | 9:30-2:00 | 9:30 2:00 | 9:30- 3:00 | 9:30-3:00 |
| K F Q B K F U O | Fort Worth, Tex St. Louis, Mo | 545.1 | 8:45- 9:45 | 10:15-11:15 | 9:30-10:30 9:00-10:00 | | | | 9:30-10:30 10:30-11:30 |
| KFVE KFWA | Univ'ty City, Mo Ogden, Utah | 260.7 | 10:15-11:15 11:00- 1:00 | Silent Silent | 10:15-11:15 11:00- 1:00 | | 10:15-11:15 11:00- 1:00 | Silent | 10:15-11:15 11:00- 1:00 |
| KFWB KFWI | | | Silent | 12:00- 2:00 11:00- 3:00 | 9:30- 2:00 11:00- 3:00 | 9:30- 2:00 Silent | 9:30-2:00 11:00-4:00 | | 9:30- 2:00 11:00- 4:00 |
| KFXF | Colorado Springs Oakland, Calif | 250 361.2 | 11:00- 1:00 11:10- 3:00 | Silent 6:30-11:30 | 10:30-12:30 9:00-1:00 | 10:30-12:30 9:00-1:00 | Silent 9:00- 9:25 | 11:00- 1:00 11:00- 3:30 | 11:00- 1:00 9:00- 9:55 |
| KG0 KGW | Portland, Ore | 491.5 | 9:00- 3:00 | 10:30- 1:00 | 9:00- 3:00 | 9:00- 3:00 | 9:00-2:00 | 9:00- 3:00 | 9:00- 3:00 |
| KHJ KIAF | Los Angeles, Cal Sihtipok, Minn | 421 | 10:30-1:00 Silent | 7:00-1:00 3:00-4:00 | Silent 8:00- 9:00 | Silent | 11:00- 1:30 8:00- 9:00 | Silent | 8:00-9:00 |
| KJR KLDS | Seattle, Wash Independence, Mo. | 440.9 | 11:30- 1:00 9:00-10:00 | 8:00-1:30 7:30-11:00 | 10:00- 1:00 Silent | 10:00-1:00 9:00-12:59 | 10:00- 1:00 Silent | 10:00- 3:00 9:00-10:00 | 10:00- 1:00 Silent |
| KLX | Oakland, Calif Shenandoah, Iowa. | | 10:00-10:30 7:00-12:00 | Silent 5:00- 7:00 | 9:30-1:30 7:00-12:00 | 10:00-10:30 7:00-12:00 | 9:30-1:30 7:00-12:00 | 10:00-10:30 7:00-12:00 | 9:30-1:30 7:00-12:00 |
| KMA KMMJ | Clay Center, Neb. | 229 280.2 | 9:00-10:00 | 9:45-10:45 10:00-11:00 | 9:00-10:00 7:00-12:00 | 9:00-10:00 7:30-1:00 | Silent | 9:00-10:00 Silent | 9:00-10:00 |
| KMOX KNX | Hollywood, Calif | 336.9 | 9:00- 5:00 | 9:30- 1:30 | 9:30- 3:00 | 9:30- 3:00 | 7:30- 1:00 9:30- 3:00 | 9:30- 3:00 | 7:30- 1:00 9:30- 3:00 |
| KOA KOB | Denver, Cole StateCollege, N.M | 348.6 | | 8:30-10:45 Silent | 8:30-12:15 9:30-10:30 | 8:30- 9:30 Silent | 8:30- 2:00 Silent | 8:30- 9:30 Slient | 8:30-11:00 9:30-10:30 |
| KOIL KPO | Council Bluffs, Ia. | 278 | 8:00- 4:00 | 8:00- 1:00 9:00- 1:00 | 7:00- 1:00 9:00- 2:00 | 7:00 - 1:00 9:30 - 2:00 | 7:00- 8:15 9:30- 2:00 | 7:00- 1:00 9:30- 2:00 | 7:00- 1:00 9:30- 3:00 |
| KPRC | Houston, Texas Pasadena, Cal | 296.9 | 8:30-12:00 | 8:00-1:00 | 7:30-11:30 Silent | 8:30-11:00 11:00-12:00 | 7:30-1:00 | 8:00-11:00 11:00-12:00 | Silent Silent |
| KPSN KSD | St. Louis. Mo | 545.1 | 8:00-11:00 | 6:15- 9:15 9:30-12:00 | 9:00-12:00 | 7:00-10:30 | Silent 7:00- 9:00 | 8:00-10:00 | 8:00-10:00 |
| KSL KSO | Salt Lake City, U. Clarinda, Ia | 241.8 | Silent | Silent | 9:00- 1:00 8:00- 9:00 | 8:00-10:00 | 9:30- 1:00 8:00- 9:30 | 9:30-1:00 8:00-10:00 | 8:00-9:30 |
| KTAB KTBI | Oakland, Calif Los Angeles, Cal | | Silent Silent | 10:45-12:15 10:15-12:30 | Silent | 11:00-1:00 11:00-12:00 | 11:00- 1:00 Silent | 12:00-3:00 11:00-12:00 | 11:00- 1:00 Silent |
| KTCL | Seattle, Wash Hot Springs, Ark. | | Silent 10:10-11:00 | 12:10-9:10 10:00-11:00 | 10:00-11:00 10:10-11:45 | | Silent 10:10-11:30 | Silent | 10:00- 3:00 10:10-11:30 |
| KTHS | Seattle, Wash | 455 | 9:30-10:30 10:00- 1:00 | Silent | Silent 10:00-12:30 | 9:30-10:30 | Silent | 9:30-10:30 9:00-10:30 | Silent Silent |
| KWKF | Pullman, Wash | 348.6 | Silent | Silent | 10:30-12:00 | Silent | Silent 10:30-12:00 | Silent | 10:30-12:00 |
| KWW0 | Chicago, Ill | 535.4 | 7:00- 8:00 6:30-12:00 | Silent 4:30-11:00 | 9:30-10:30 Silent | 7:00- 8:00 8:30-11:30 | 7:00-8:00 6:30-12:00 | 7:00-8:00 6:30-11:30 | 6:30-12:00 |
| NAA PWX | Radio, Va Havana, Cuba | | Silent 8:30-11:00 | Silent .8:00-10:15 | 7:45- 8:00 8:30-11:00 | 7:45- 8:00 8:30-11:30 | 7:25- 8:40 8:00-10:15 | 7:45- 8:00 Silent | 7:45- 8:00 Silent |
| WADC | Akron, Ohio | 258 | 6:30- 7:30 11:00- 1:00 | 6:30-7:30 Silent | 6:30- 2:00 | 6:30-11:30 Silent | 6:30-7:30 | 6:30-10:00 Silent | 6:30-11:00 7:00-10:00 |
| WAHG | Columbus, Ohio | 293.9 | 9:15-11:00 | 3:00- 4:00 | 6:00-11:30 | 6:00-12:00 | 6:00-7:00 | 6:00-7:00 | 6:00-12:00 |
| WAM D WBAL | Baltimore, Md | 246 | 7:15-11:30 Silent | 7:30-8:30 | 8:00-1:00 6:30-11:00 | Silent 6:30-11:00 | 8:00- 1:00 Silent | 7:15- 1:00 6:30-11:00 | 7:15- 1:00 6:30-11:00 |
| WBAP WBAR | Sisiht, Wis | 406 | Silent | 11:00-12:00 | 10:00-11:00 | | | 8:30- 1:00 8:30- 9:30 | 8:30- 1:00 Silent |
| WBBN | | 226 272.6 | 8:00- 2:00 7:00- 9:00 | | 6:00- 7:00 7:00- 8:00 | Sjient | 8:00- 2:00 Silent | 8:00-12:00 7:00-8:00 | Silent |
| WBCN WBZ | | 266 | 9:00-1:00 6:15-9:00 | | Silent 6:00-10:00 | 9:00-1:00 6:15-10:00 | 8:00-12:00 6:00-10:00 | 9:00-2:00 6:00-10:00 | |
| WCAE | Pittsburgh, Pa | 461.3 | 5:30- 8:30 | 4:00- 9:15 | 7:00-11:05 | 7:00-10:05 | 7:00-10:00 | 7:00-11:00 | 7:00-11:00 |
| WCAP | | | Silent | 4:00-8:45 4:00-10:00 | 6:30-10:00 6:30-10:00 | | 6:30-10:00 6:30-11:00 | Silent 5:30-11:30 | 6:30-12:00 5:45-10:30 |
| WCBD | Zion, Ill | 416.4 | | 8:00-10:30 5:10-11:35 | | 8:00-10:30 7:00-11:30 | Silent 7:00- 1:30 | 8:00-10:30 7:15-12:05 | 7:15-12:05 |
| WCOA | | 222 | 12:00- 1:00 | | 7:30-8:30 6:00-9:00 | Silent 6:00-11:00 | 7:30- 8:30 6:00- 9:00 | Silent 6:00- 9:00 | 7:30-8:30 6:00-10:00 |
| WDAF WDB0 | Kansas City, Mo | 365.6 | | 5:00- 5:45 | 7:00-2:00 | 7:00 - 2:00 | 7:00- 2:00 9:00-10:30 | 7:00-2:00 9:00-10:30 | 7:00-2:00 9:00-10:30 |
| WDWI | F Providence, R. L. | 440.9 | Silent | Silent | Silent 5:00-11:00 | 6:45- 7:00 | 6:45- 7:00 | 6:45- 7:00 | 6:45- 7:00 |
| WEAR | Providence, R. I | 270.1 | 5:30-9:30 | 6:30-7:45 | 5:30-9:30 | 5:30-9:30 | 5:00-11:00 5:30- 9:30 | 5:00-11:00 5:30- 9:30 | Silent |
| WEA0 | Columbus, Ohio | | | Silent 5:00-9:00 | Silent Silent | 7:00-9:00 7:00-12:30 | 8:00-9:00 7:00-12:30 | 8:00-11:00 7:00-12:30 | |
| W EBJ W E E I | | | | Silent 5:00-9:15 | Silent 5:45-10:30 | 7:00-9:00 6:30-10:30 | 7:00-9:00 5:13-10:00 | Silent 6:30-10:00 | 7:00-9:00 6:30-10:00 |
| WENE | BerrienSpgs., Mich | 285.5 | | 8:15-10:10 | | Silent 6:00-10:00 | 8:15- 9:15 7:00- 2:00 | Silent 6:00-10:00 | Silent |
| WFAA | Dallas, Tex | 475.9 | 7:30- 1:00 | 8:15-1:00 | 7:30-10:30 10:30- 1:00 | 7:30-1:00 | Silent | 7:30-10:30 | |
| WFB | Philadelphia, Pa. | | 5:30-11:00 | 3:30- 4:30 | 6:00-7:00 | | 6:00-7:00 | 5:30-10:00 | 6:00-7:00 |
| WGB | | | | Silent 7:00-8:00 | Silent 6:00-6:15 | 8:15-11:00 5:00-10:30 | Silent 5:00-7:30 | Silent 5:00-7:45 | 8:00-9:00 Silent |
| WGBU | J Fulford, Fla | 278 | 6:30 - 1:00 7:30 - 11:00 | | | | 6:30 - 1:00 6:00 - 8:15 | 6:30 - 1:00 9:30 - 12:00 | |
| WGES | Chicago, III | 250 | 5:00- 1:00 6:30- 1:00 | 5:00- 2:00 | | 5:00-1:00 | 5:00-1:00 | 5:00 - 1:00 6:30 - 1:00 | 5:00- 1:00 |
| WGHF | | . 270 | Silent | Silent | 6:00-1:00 | | | 6:00-1:00 6:45-11:00 | 6:00- 1:00 |
| WGN | Buffalo, N. Y | 319 | Silent | 5:00-9:15 | 5:30-11:00 | 5:30-8:00 | 5:30-11:00 | 5:30- 9:00 | 5:30-11:00 |
| WGY | Schenectady, N. Y Madison, Wis | 535.4 | Silent | Silent | 9:00-10:00 | Silent | 9:00-10:00 | 5:30-11:30 Silent | 9:00-10:00 |
| WHAI | | | 6:30-8:00 | | 6:30-11:00 | 6:30- 8:00 | Silent | 6:30-11:00 | 6:30-8:00 |
| WHAS | Louisville, Ky | 399.8 | 8:30-10:00 | 5:30- 6:30 Silent | 9:00-12:00 | 8:30-10:30 Silent | Silent | Silent | 8:30-10:00 Silent |
| WHB | Kansas City, Mo New York, N. Y | 365.6 | Silent | 9:00-2:00 2:00-11:30 | 5:30-11:30 | 8:00-11:00 5:00-12:00 | 8:00-9:00 | 5:00-12:00 | 8:00-9:00 5:00-12:00 |
| WHO | Des Moines, la Chicago, Ill | . 526 | Silent | 6:00-1:00 | 8:30-1:00 | 8:30-1:00 7:00-1:00 | 7:00- I:00 | 8:30-1:00 | 8:30-1:00 |
| WIB0 | Chicago, III | 226 | 6:00- 8:00 | 6:00-12:00 | Silent | 6:00- 2:00 | 6:00-12:00 | 6:00- 2:00 | 6:00- 2:00 |
| WIP WJAR | Philadelphia, Pa. Providence, R. J | | Silent | 5:00-9:15 | 6:45-10:00 | 6:30-9:00 | 6:30-10:00 | 6:45-10:00 | 6:45-9:30 |
| ZALW XALW | | | | | 7:00-12:00 8:00-10:00 | | | | |
| WJAZ | Chicago, III | 329.5 | Silent | Silent 3:00-4:00 | Silent | Sllent 5:30-1:00 | Silent | 11:00 - 1:00 5:30 - 1:00 | |
| WJR | Pontiae, Mich | . 516.9 | 7:00-12:30 | Silent | 7:00-12:30 | 7:00-10:00 | 7:00-12:30 | 7:00-11:00 | 7:00-10:00 |
| WKA | | | | Sllent | Silent | Silent | 7:00- 9:00 | 7:00- 9:00 | 7:00-9:00 |
| WKA | Cincinnati, O | . 422.3 | 3 10:00-11:15 | Silent 5 5:45-11:15 | | | | 9:00-11:15 | Silent |
| WLIB | Chicago, Ill | 302. | 8/7:00-12:30 | 5:30- 6:13 | Silent 7:15-9:4 | 7:00-12:30 | 7:00-12:30 | 7:00-12:30 6:30- 7:30 | 8:30-12:00 |
| WLS WLW | Chicago, Ill | 344. | 6 7:30-12:00 | 0 6:00- 7:55 | Silent | 6:40- 7:55 | 6:40-1:00 | 6:40-7:55 | 6:40-11:00 |
| WLW | L New York, N.Y. | 288. | 3 Silent | 6:00- 7:00 | 7:00-9:00 | Silent | Silent | 7:00- 9:00 | Silent |
| WMA | Q Chicago, Ill | . 447. | 5 6:00-10:00 | 0 Silent | Silent | 6:00- 9:55 | 6:00-9:55 | 6:00-9:00 | 0 6:00- 9:55 |
| WMA | B Chicago, 111 | - | | Silent 0 3:00-11:00 | 10:00-11:00 Silent | 7:00-11:00 | 7:00-11:00 | 7:00-11:00 | 7:00-11:00 |
| W M B W M C | | 384. | 4 7:00- 1:00 | 0 7:00- 1:00 | | 0 7:00- 1:00 | 7:00-1:00 | | 7:00-1:00 |
| WMC | A New York, N.Y. | . 340. | 7 8:00-12:00 2 5:00-10:00 | 0 6:00 - 9:00 0 2:15 - 7:40 | 8:00-11:0 5:30-9:4 | 0 7:00-11:00 5 5:00- 8:00 | 8:00-11:00 | 8:00-11:00 | |
| WNY | C New York, N.Y. | . 526 | 6:00-9:30 | 00:01=00:8 IO | 0 6 - 35 - 9 - 3 | 9:30-10:30 | 0 8 30 - 9 30 | 1 6:35- 9:30 | 6:30-9:30 9:30-10:30 |
| WOAN | N Lawrenceb'g,Tenn | 282. | 8 Silent | 10:00-11:00 | 10:00- 2:30 | 0 10:00-11:00 | 00:11-00:01 | 0:11-00:01 | 10:00-11:00 7:00-12:15 |
| | K Trenton, N. J | | Silent | 8:30-10:00 | Silent | 7:00-2:00 Silent | Silent Silent | Silent | Silent |
| | | | | | | | | | |

| Call | Location | Met. | Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|------|--------------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| WOC | Davenport, la | 483.6 | 10:00-11:00 | 7:30-12:30 | Silent | 7:00-11:00 | 7:00-11:30 | 7:00- 1:00 | 8:30-12:00 |
| 10W | Ames, Ia | | | Silent | Silent | Silent | Silent | 8:05-9:30 | Silent |
| WOK | Homewood, III | 217.3 | 10:00-1:00 | 7:00-1:00 | Silent | 10:00- 1:30 | 10:00- 1:30 | 10:00- 1:30 | 10:00-1:30 |
| WOO | Philadelphia, Pa | 508.2 | 6:30- 7:30 | 5:00-6:00 | 6:30-11:00 | 6:30-7:30 | 6:30-10:30 | 6:30-7:30 | 6:30-10:30 |
| WOOD | Grand Rapids, Mch. | 242 | 10:00-1:00 | Silent | 10:00- 2:00 | 10:00- 1:00 | 10:00-1:00 | Silent | 10:00-1:00 |
| woo | Kansas City, Mo | 278 | 9:00-12:00 | 9:00-10:15 | Silent | 9:00-10:00 | Silent | 8:00-10:00 | |
| WOR | Newark, N. J | 405.2 | 5:15-11:00 | Silent | 5:15-11:00 | 5:15-7:00 | 5:15-10:30 | 5:15- 7:20 | 5:15- 7:00 |
| WORD | Batavia, III | 275 | 7:00-10:25 | 2:30-19:00 | Silent | 7:00-12:45 | 7:00-12:00 | | 7:00-12:45 |
| Wos | Jefferson City, Mo | 440.9 | | 6:00-9:30 | | Silent | 9:00-11:00 | | 9:00-11:00 |
| WPG | Atlantic City, N.J | 299.8 | 5:45-11:00 | 2:15-10:00 | 5:45-11:00 | 5:45-11:00 | Silent | 5:45-11:00 | 5:45-11:00 |
| WQJ | Chicago, Ill | 447.5 | 7:00-3:00 | 3:00-10:00 | Silent | 7:00- 2:00 | | | 7:00-2:00 |
| WRC | Washington, D. C. | | | | Silent | 7:00-11:30 | Silent | 7:00-12:30 | Silent |
| WREO | Lansing, Mich | 285.5 | 10:00-12:00 | Silent | Silent | 8:15-10:00 | Silent | 8:15-10:00 | Silent |
| WRVA | Richmend, Va | | Silent | Silent | | 11:00- 1:00 | | | 7:00-11:00 |
| WRW | Tarrytown, N. Y | | 7:00-10:30 | | | | | | 8:00-10:30 |
| 1A2W | Cincinnati, O | | | | 8:00-10:00 | | | | Silent |
| WSB | Atlanta, Ga | | | | | | 11:45- 1:00 | | 9:00- 1:00 |
| WSBC | Chicago, III | | | | | | 6:30-1:00 | | 6:30-1:00 |
| WSM | Nashville, Tenn | | | | 8:00-12:00 | | | | 8:00-12:00 |
| WSMB | New Orleans, La | 319 | 9:30-11:30 | Silent | 9:30-12:30 | Silent | 9:30-11:30 | 9:30-12:00 | Silent |
| WSUI | lowa City, la | 483.6 | Silent | 10:15-10:45 | 8:30-10:00 | | Silent | Silent | Silent |
| WSWS | Chicago, III | 275.1 | 6:00-11:00 | 6:00-11:00 | Silent | 6:00-11:00 | 6:00-11:00 | 6:00-12:00 | 6:00-12:00 |
| WTAG | Worcester, Mass | | Silent | 8:00-9:15 | 6:00-10:00 | | | | |
| | Cleveland, O | | 6:00-12:00 | | 6:00-1:00 | | 6:00- 1:00 | | 6:00- 7:00 |
| WTIC | Hartford, Conn | 475.9 | | | 5:50-11:00 | | 5:30-9:30 | | 5:30-11:00 |
| WWJ | Detroit, Mich | 352.7 | Silent | 2:00-9:15 | 6:00-10:00 | 6:00- 8:00 | 6:00-10:00 | 6:00-12:30 | 6:00-10:00 |

STATIONS IN ORDER OF WAVE LENGTHS

| Meters Call | Meters Call | Meters Call | Meters Call | Meters Call | Meters Call |
|-------------------------|-----------------|-------------------|--------------------------|------------------------|-------------|
| 000 7 THEEDO | 263 KFNF | 282.8 WSM | 336.9 WJAX | 394.5 WOAI | 467 KFI |
| 209.7 WSBC 217.3 WOK | 265.6 WBCN | 285.5 WREO | 340.7 KFAB | 399.8 WHAS | 468.5 WCAP |
| 222 WCOA | 265.6 WENR | 288.3 KFKX | 340.7 WKAQ | 399.8 WHT | 468.5 WRC |
| 226 KFWI | 265.6 WGHB | 288.3 WLWL | 340.7 WMCA | 400 PWX | 475.9 WBAP |
| 226 WBBM | 265.6 WMAK | 293.9 KTBI | 344.6 WCBD | 405.2 KHJ | 475.9 WTIC |
| 226 WIBO | 268 KFH | 293.9 WAIU | 344.6 WLS | 405.2 WOR | 475.9 WFAA |
| 229 KMMJ | 268 WTAG | 293.9 WEAO | 348.6 WEEI | 406 WBAR | 480 CYL |
| 232.4 KFON | 270.1 WEAN | 296.9 KPRC | 350 CZE | 410.7 CKAC | 483.6 WOC |
| 236.1 WGBF | 270.1 WGHP | 299.8 KSL | 352.7 WWJ | 416.4 WCCO | 483.6 WSUI |
| 240 KFVE | 270.1 WOI | 299.8 WPG | 356.9 CFCA | 421 KIAF | 491.5 KGW |
| 240 KTAB | | 302.8 W GN | 356.9 CKCL | 422.3 WLW | 491.5 WEAF |
| 240 WOAX | 272.6 WEBJ | 302.8 WLIB | 356.9 CKNC | 422.3 WKRC | 499.7 WMC |
| 242 KSO | 272.6 WFBH | 305.9 KTCL | 361.2 KGO | 428.3 WSB | 502.8 KFQB |
| 242 WOOD | 273 W RW | 305.9 WJAR | 361.2 WHN | 428.3 KPO | 508.2 KLX |
| 244 WAMD | 275.1 WHAD | 309.1 KDKA | 365.6 WDAF | 434.5 CNRO | 508.2 WIP |
| 246 WBAL | 275.1 WHAR | 315.6 KFDM | 365.6 WHB | 434.5 CFCN | 508.2 WOO |
| 250 KFXF | 275.1 WORD | 315.6 KPSN | 370.2 WEBH | 434.5 NAA | 516.9 CJCA |
| 250 WGES | 275.1 WSWS | 315.6 WAHG | 370.2 WJJD | 435 AT9 | 516.9 WCX |
| 250 WMBB | 275.3 WJAS | 315.6 WGBS | 374.8 KTHS | 440.9 KLDS | 516.9 WJR |
| 252 KFWB | 278 KOIL | 319 WGR | 379.5 WGY | 440.9 WDWF | 526 WHO |
| 252 KMA | 278 KWWG | 319 WSMB | 379.5 WHAZ | 440.9 WOS | 526 WNYC |
| 252 WGCP | 278 WCAU | 322.4 KOA | 384.4 CKY | 447.5 WMAQ | 526 WOAW |
| 256 WRVA | 278 WGBU | 325.9 WSAI | 384.4 KJR | 447.5 WQJ | 535.4 KYW |
| 258 WADC | 278 WOQ | | 384.4 WMBF 389.4 WTAM | | 545.1 KFUO |
| 260.7 KFWA | 280.2 KMOX | | 394.5 WFI | 454.3 WJZ 455 KTW | 545.1 KSD |
| 260.7 KFJF | 280.2 WNAC | | 394.5 WLIT | | l l |
| 260.7 WMAZ | 1282.8 WOAN | 1990.9 KNA | ONTO WILL | 1401.0 WCAE | ' |

ANOTHER COW YARN; **BOVINES VETO JAZZ**

INCINNATI.—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. He claims that a special program broadcast for the benefit of dairymen at that time would increase the production of milk and warns against playing jazz as most good cows do not like this type of

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 serv-

was the commemoration of the first serveice broadcast by Radio from a church in
Canada on Easter Sunday, 1923. The
church was the Fort Rouge United.
The four men who officiated in the
simple ceremony were: Rev. E. F. Church,
the pastor who preached the first Radio sermon from a church in the Dominion; D. R. P. Coats, announcer of CKY, who broadcast it; "Paddy" of the Winnipeg General hospital, who was a listener, and Rev. Dr. John MacLean, archivisit of the Manitoba Conference of the United Church of Canada, who remembers the days when electric lights and telephones were marvels

scarcely possible.

Contributions were made by Radio listeners for the tablet which was unveiled. The inscription on it was matter of fact, "The first church service broadcast in Canada was held in this church on Easter Sunday, 1923. Rev. E. F. Church, B. A., pastor, was the preacher, CKY operating."

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. Mr. Haley plans to transfer the present equipment of WGHB to the Fort Harrison hotel and operate it in conjunction with

the roof garden.

New call letters will identify the station at the opening of the Fort Harrison. The combination of WFLA, designating West Florida (W-FLA), is sought

KVOO DEDICATES SET WITH GALA PROGRAM

FAMOUS ANNOUNCERS AID IN CHRISTENING PARTY

New 1,000-Watt Western Electric 'Voice of Oklahoma' Opened by South-western 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 per-sonalities."

That was something like the announce-

ment that greeted the ears of southwest-ern listeners recently when the new transmitter of the Southwestern Sales corpora-

mitter of the Southwestern Sales corporation, at Bristow, with studios in Bristow and Tulsa, officially went on the air.

Prominent indeed was the representative group of famous announcers that journeyed to help KVOO celebrate. The guests included Peter MacArthur of WOC, Davenport; G. C. Arnoux of KTHS, Hot Springs; Adams Colhoun of WFAA, Dallas; Henry Field of KFNF, Shenandoah, Iowa: Gayle Grubb of KFAB Lincoln Iowa; Gayle Grubb of KFAB, Lincoln, Nebr.; Lester Palmer of WOAW, Omaha, and Bob Graham of KFJF, Oklahoma City.
E. E. Plummer, editor of Radio Digest,
was also a guest.

Business Welcomes New Station

Business was almost at a standstill in Tulsa and Bristow at the start of the 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. Rollestone, president of the Southwestern Sales corporation which owns and operates "The Voice of Oklahoma." The Rotary and Lions clubs and the Tulsa chamber of commerce turned out full memberships in joint meeting 'at the luncheon marking the meeting at the luncheon marking the

Lawn parties, luncheons, tours and banquets filled the gala day. Two studios, the one at Bristow in the Hotel Roland and the other at Tulsa in the Hotel Mayo, were kept alternately busy with artists and programs announced by the guest announcers during the non-stop twenty-

four hour program.

Four hundred prizes with a total value of \$2,500 were presented to listeners sending in communications.

Hear WJZ in Jerusalem

NEW YORK .-- On a postal card received from Major L. D. Gardner by C. B. Popenoe, manger 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 WEAF 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 rather than in the hands of those who for publicity or other selfish purposes will depreciate this medium of communication."

cation."
So stated William E. Harkness, vicepresident and general manager of the
Broadcasting Company of America which
operates Station WEAF 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. Sight of the Kadio 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 WEAF as well. One of these surveys determined the average listeners per set to be five. to be five.

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 advertion.

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.

wn place, particularly in the field of far the so-called educational program educators. Much remains to be done experiments. There has been no system-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, happygo-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 Lock Keefe. announces at
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 WDGY, 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 somes

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 venient 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 10:30 a.m. 9:30 8:30 7:30 6:30 8:30 7:30 6:30 WWG (352.1m-350kc), Tonight's dinner.

10:45 9:45 8:45 7:45 6:45

WTAG (263m-1120kc), Marjorie Woodman, nurse.

11:50 10:50 9:50 8:50 7:50

WMC (499.7m-600kc), Home economics discussion,

Miss Kitty. WEBH (370.2m-810kc), Fashon and accountable 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 | 12 n | 1 | 10 |

KGW (491.5m-610kc), Household helps.

WSOE (245.8m-1220kc), Ladies' hour. 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), Homo economics.

1 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 12 12 n.

WCCO (416.4m-720kc), Women's hour.
WSOE (246m-1220kc), Cooking chats.
WHB (365.6m-820kc), Ladies' hour.
WHB (365.6m-820kc), Ladies' hour.
WIP (508.2m-500kc), Market hints for housewives.

5 4 3 2 5 4 3 2 1 WOC (483.6m-620kc), Home management schedule, Aunt Jane. Aunt Jane 5 4 3 2 KMOX (280.2m-1070kc), Housewives' hour. WRC (468.5m-640ke), 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 4:30 3:30 KPO (428.3m-700kc), Fashion notes. 1:15 a.m. 12.15 11:15 10:15 9:15 KGO (361.2m-830kc), 'Character Training in the Home,' E. Anderson.

Tuesday Atlantic Eastern Central Mountain Pacific 10 a.m. 9 8 7 6 WIP (508.2m-590kc), Menu, Anna Scott. 10:30 9:30 8:30 7:30 6:30 WWJ (352,7m-850ke), 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. 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 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 wGBF (236.1m-1270kc), Garden talk.

Atlantic Eastern Central Mountain Pacific 2:45 n. m. 1:45 | 12:45 | 11:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10:45 | 10 4 3 2 1 WIP (508.2m-590kc), Menu talk. 4:15 3:15 2:15 1:15 12:15 WHO (526m-570ke), Recipes, household hints. 5 4 3 2 | 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' matines. 7 6 5 4 3 KOA (322.4m-930kc), Culinary hints, Clara Hoover. Fashion hints. 7:45 6:45 5:45 4:45 3:45 WPG (299.8m-1000kc), Fashion Fishes. 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 | WUJ (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. | 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 | n.m. | 11:30 | 0:30 | 0:30 | 2:30 | 2:30 | 2:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 3:30 | 12:30 p.m. 11:30 10:30 9:30 8:30 WEBH (370.2m-810kc), Fashlon and Household talks.

WGBF (236.1m-1270kc), Cooking instructions.

WGN (302.8m-990kc), Household management period. period. 12:35 11:35 10:35 9:35 KYW (535.4m-560kc), Table talk.

1:15 12:15 11:15 10:15 9:15 KMOX (280.2m-1070kc), Cookery, Gladys Kim-2:20 1:20 12:20 11:20 WGBF (236.1m-1270kc), Garden talk. 2:45 1:45 12:45 11:45 WQJ (447.5m-670kc), Home economics. 3 VJZ (454.3m-660kc, "Your Daily Menu." 4 3 2 t WCCO (416.4m-720kc), Woman's hour. WHB (365.6m-820kc), Ladies' hour. 4:30 3:30 2:30 1:30 WLW (422.3m-710ke), Cooking school. 5 4 3 2 1
WOC (488.56m-620kc), Home management schedule,
Aunt Jane.
5:30 4:30 3:30 2:30 1:30
KENF (263m-1140kc), Flower talk.
5:40 4:40 3:40 2:40 1:40
WRC (468.5m-640kc), Housekeepers' chat.

Atlantic Eastern Central Meuntain Pacific 7 6 5 4 3 KGO (361.2m-830kc), "Hints for Housekeeper." 8 7 6 Woman's hour.
KMA (252m-1990kc), Woman's hour.
KMA (252m-1990kc), Domestic sclence talk.
8:45 7:45 6:45 5:45 4:45
WBZ (333.1m-900kc), Household management.

Thursday

Atlantic Eastern Central Meuntain Pacific 10 a. m. 9 8 7 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 9:46 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. 10 9 8

Miss Kitty.

12 n. 11

WEAO (293.9m-1020kc), Housekeepers' half hour.

WEAR (389.4m-770kc), Home service talk.

WHT (399.4m-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 Ficurio Basket." "More About Salads."

12:30 p.m. 11:30 10:30 9:30 8:30

WEBH (370.2m-810kc) Househould and fashion

talks. talks. (302.8m-990kc), Home Management period.

WJZ (494,3m-904K6), rour Dany menu.
3:15 2:15 1:15 12:15
WJZ (454,3m-660kc) "Wall Paper, Room by Room," A. Fillebroun.
4 3 2 12 n.
KSO (241.8m-1240kc), Woman's hour, Mrs. Marcaret R. Russell. 4:30 3:30 2:30 1:30 12:30 WLS (344.6m-870kc), Homemakers hour. 5 4 3 2 1 WOC (488.6m-620kc) Home management schedule, Aunt Jane. 6 5 4 3 2 Aunt Jane.
6 5 4 3 2

KMA. (241.8m-1240ke). Woman's hour.
KMOX (280.2m-1070ke) Housewives' hour.
6:30 5:30 4:30 3:30 2:30

KOA (322.4m-930ke) Housewives' matinee.
WCCO (416.4m-720ke) Women's club program.
7 6 5 4 3

KOA (322.4m-930ke) Culinary hints, Clara Hoover.

| Friday | Atlantic | Eastern | Central | Mountain | Pacific | 10:30 a.m. 9:30 | 8:30 | 7:30 | 6:30 | 8:30 | 7:30 | 6:30 | 8:30 | 7:30 | 6:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 7:30 | 8:30 | 8:30 | 7:30 | 8:30 | 8:30 | 7:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30

talks. WGBF (236.1m-1270kc). Coolding instructions. WGN (302.8m-990kc), Home Management period. 2:45 1:45 12:45 11:45 WOAW (526m-570kc) Sunshine Sunday menu. WQJ (447.5m-670kc), July 2, "Your Child's Diet Now Means More Than You Realize." "How Do You Wash Your Dishes?" 3 2 | 12 m. | 11 WJZ (454.3m-660kc) "Your Daily Menu," Mrs. J. Heath. Heath. 4 3 12 n.

WHB (365.6m-820kc) Ladies hour. 2.05

WCCO (416.4m-720kc). Woman's hour.
3:15 2:15 11:15

WJZ (454.3m-660kc), "They Are Wearing."
4:15 3:15

WJZ (454.3m-660kc) "Solving Candy Problems,"
5 4 3

KYW (535.4m-560kc) Woman's hour.

WOC (483.6m-620kc) Woman's hour.

Home Management, Aunt 5:15 4-15 5:15 4:15 3:15 WMAQ (447.5m-670kc) 6:30 5:30 4:30 3:30 KOA (322.4m-930kc) Housewives matinee. KOA (322.4m-930kc), Cullnary hints. Fashion re-11:30 10:30 9:30 8:30 7:30 KMOX (280.2m-1070kc) Housewives' hour. Saturday Atlantic Eastern Central Mountain 10:30 p. m. 9:30 8:30 7:30 WWJ (352.7m-850kc) Tonight's dinner.

2 1 2 n. 11 10 KGW (491.5m-610ke), Household helps, shopping guide.

KMA (252m-1190kc), Domestic science topics.

2:20 1:20 12:20 11:20 WGBF (236.1m-1270kc), Garden talk.

6 5 4 3 2 KMOX (280.2m-1190kc), Housewives' hour.

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, Denver Municipal caphostra. York Philharmonic orchestra and Newark Philharmonic band are bringing music of an outdoor type into the homes of millions. Band con-certs may now be enjoyed by all on

certs 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 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

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 Sesquicentennot able to attend the Sesquicentennial into the middle of the great fair Saturday, July 17, and let him listen to the Episotic 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

Thursday, July 15

Headliners Today

Headliner's Ioday

Atlantic 7p.m. Central Mountain Pacific 7p.m. 6630 540 430 330

WRC 468.5m-640kc), WGY (379.5m-790kc), WJZ (454.3m-660kc), U. S. Marine band, 87 67 680kc), Scottle Millar 930 630 730 6530 530

WHAS (399.8m-750kc), Virginia Vetter's entertainers.

tainers. 6

KGO (361.2m-830ke), Fishin' Jim Pike. 7:30

8:30

9:30

9:30

8:30

7:30

6:30

WOAI (394.5m-760ke), Mistletoe Melody Maids.

WPG (299.8m-1000ke), Johnny Hamp's Kentuckians.

11

10

9

8

7

WSWS (275.1m-1090ke), "On the Volga River,"

John Clark production.

12:20 a. m. 11:20

10:20

9:20

8:20

KGW (491.5m-610ke), Vaudeville, five twenty-minute aets.

aets. 1 12 m. KNX (336.9m-890kc), Balboa Beach Nuts. KPO (428.3m-700kc), Spanish songs, Francesca Ortega.

Ortega.

1:30 12:30 11:30 10:30 9:30

WJJD (370.2m-810kc), Knights of the Burning

Thursday, silent night for: CHIC, CKNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFH, KFOA, KFUO, KMOX, KOA, KOB, WAHG, WCAP, WEAD, WEBJ, WGBF, WHAD, WHAZ, WMAK, WOOD, WOR, WOS, WŚM, WSUI, WTAM.

Atlantic or Eastern Daylight Saving

tone; 10:30, Eddie Campbell's orchestra; 11, Club Cadix revue.

WEAF, New York, N. Y. (491.5m-610kc), 4-12 midnight, Hotel Waldorf-Astoria orchestra; Meyer Davis Park Lane orchestra; Ther Sevenaders; Elires Harvesters; Clicquot Club Eskimos; Slivertown Cord orchestra; Buffalodians

WEEI, Boston, Mass. (348.6m-860kc), 7:30 p. m., Michael Ahearn, baritone; 7:45, musicale; 8, WEAF.

WFI, Philadelphia, Pa. (394.5m-760kc), 7:15 p. m., Koystone auto club feature; 8:15, WEAF.

WGBS, New York, N. Y. (315.6m-930kc), 6 p. m., Uncle Geebee; 6:30, music; 6:45, George Hall and his Royal Arcadians; 9, Guiseppe Leone, operatic baritone; 10:20, Royal Arcadians, Arcadia ballroom.

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

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

Seastde hotel trio; 9, studio concert; 11, Folles Bergere dance orchestra.
WHN, New York, N. Y. (361.2m-830ke), 8 p. m., Will Oakland's chatheau; 8:30, Loew's Gates theater orchestra; 9:30, Loew's 83rd St. theater orchestra; 10:30, Everglades orchestra; 11; Olto Alabam orchestra; 11:30, Everglades orchestra; 12, Sophie Tucker's Playground orchestra

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

Candles.
1:45 12:45 11:45 10:45
WDAF (365.6m-820kc), Nighthawk frolic.

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

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

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.



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

WIZ. New York, N. Y. (454,3m-660kc), 7:05 p. m.

Hotel Pennsylvania concert orchestra; 7:40, Judge, Jr.;

8. Pirst National presentation, 11 Must Be Love, 12 Pirst National presentation, 12 Must Be Love, 13 Pirst National presentation, 14 Must Be Love, 18:20, U. S. Marine band, WRC, WGY, WCAD; 3:30, Royal Typewiter Salon orchestra, WGY, WCAD; 11, WRC,

WLTI, Philadelphia, Pa. (394,5m-760kc), 7:30 p. m.,

Holbrau Haus entertainers; 18, Roemers Homors; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway night.

WYC, New York, N. Y. (326m-570kc), 6:10 p. m.,

pianos elections.

WO, Philadelphia, Pa. (508.2m-790kc), 7:30 p. m.,

Adelphia Roof Garden orchestra

WOR, Nowark, N. J. (495.2m-740kc), 6:15 p. m.,

Jacques Jacobs Hotel Shelton ensemble; 7, Jacques

Jacobs Hotel Shelton ensemble; 7, Jacques

Jacobs Hotel Shelton ensemble, 17, Jacques

Jacobs Hotel Shelton ensemble, 18:00, Johnny Hamp's Kentuckians; 11, Hotel Ambassador dinner music; 9:30,

Hotel Traymore concert orchestra; 10, Ted Weems'

Novelty dance orchestra; 10:30, Johnny Hamp's Kentuckians; 11, Hotel Shelburne dance orchestra; 11:30,

Silver Silper supper club dance orchestra; 11:30,

Eastern Standard or Central Daylight

Eastern Standard or Central Daylight Saving Time Stations

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

Pittsburgh Athlette association; 8:30, half hour with famous composers, Symphony players; 9, Symphony players; 10, Symphon

Atlantic or Eastern Daylight Saving

Time Stations

CKNC, Toronto, Can. (356.8m-840ko), 8 p. m., Charles
E. Bodley and his dance orchestra; Elsie Addison,
contraito: Arthur Bailey, tenor.

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

CNRT, Toronto, Canada (356.9m-840kc), 6:30 p. m.,
Luigi Romanelli and his King Edward hotel concert
orchestra; 10, CNRT string quartet.

WBBR, New York, N. Y. (272.6m-1100ko), 8 p. m.,
Josephine Locke, violinist; 8:10, Waiter Stoll, tenor;
8:20, Bible lecture; 8:40, tenor; 8:50, violinist,
WCAU, Philadelphia, Pa. (277.6m-1080kc), 5:30 p. m.,
Cathay orchestra; 7:30, Snellenhurg symphony orchestra; 8, Saddlers Plantation screnaders; 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.

WFAF. New York, N. Y. (491.5m-610kc), 4-12, mid-

Hunter, soprano; Jacob Hannemann, planist; Kennard Barradell, tenor.

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

WLIB, Chicago, III. (302.8m.990kc), 7-7:95 p. m., Millon sing; 7:95-7:15, 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; Ambross Larsen, organist; Bobby Mecler's Drake hotel dance orchestra; Fred Hamm's orchestra.

WLS, Chicago, III. (344.6m.870kc), 6:30 p. m., Elsie Mae Look, organist; 5:45, Maurle Sherman's College Inn orchestra; 1; Elsie and Ralph, Lullaby time; 7:15, Rose Sherman, violinist, and Marle Ludwig, harpist; 7:20, Al Melgard, organist; 5:29-8:35, Mu Phl Epsilon Program.

program.

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

theater organ; 6:30, orchestra; 8:25, Whitney-trio; 9, Constance Eberhart, soprano; 9:30, Jack Chapman's orchestra.

WMBB, Chicago, III. (249.9m-1200kc), 7-8 p. m., Trianon ensemble, Elizabeth Rechik, cellist; Margaret Congram; 9-11, Trianon orchestra, Dell Lampe; Woodlawn theater orchestra, Armin F. Hand; Trianon ensemble; Joe Parsons, bartione; Jack Brewton, ''musical saw'; Bob Smith, John Stanford, popular program. WORD, Batavia, III. (275m-1090kc), 8 p. m., musicale; Sunday school lesson (WOK, Chicago, III. (217.8m-1380kc), 6-7 p. m., string ensemble concert, Tip-Top Inn; 10-1:30 a. m., Tearney's Town elub orchestra; Midway Garden orchestra; Pershing Palace orchestra; Midway Garden orchestra; Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.

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

WRC, Washington, D. C. (488.5m-640kc), 7 p. m., WJZ; 7:30, U. S. Marine band; 9, WJZ; 9:30, WRC players; 10:30, Myeer Davis' Swance syncopators.

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

tra.
WRVA, Richmond, Va. (256.3m-1170ke), 8:45 p. m.,
Ellizabeth City, North Carolina program; 11:45, Carry
Me Back to Old Virginny.
WSAI, Cincinnati, Ohio (325.9m-920ke), 7:30 p. m.,
WEAF.

WEAF.
WEAF.
WSWS, Chicago, Ill. (275m-1090kc), 6 p. m., Rita McFawn, Hugh Aspinwall; 7, Edgar Balfour, baritone; Eulalia Kober, pianist; ballads, Ilona 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, witching hour, Henri Therrlen, orchestra. John Clark, Zola Haynes.
WTAM, Cleveland, Ohio (389.4m-770kc), 6 p. m., Holenden hotel orchestra; 7:15, WEAF; 8, WEAF; 9, studio program; 11, Jack Horwitz Collegian serenaders.

naders.
WTIC, Hartford, Conn. (475.9m-630kc), 7 p. m., "Scotti'
Millar; 8, For-an-to melody makers and Manchester
male quartet; 9, Emil Helmberger's Hotel Bond dance

orchestra.

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

Central Standard Time Stations

Central Standard Time Stations

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

KFNF, Shenandosh, Iowa (263m-1140ke), 7 p. m., Margarette Teten Zeigenbeln.

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

KLDS, Independence, Mo. (440.9m-680ke), 8 p. m., Elleen 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, Harmo-Jazz orchestra; 11, fretted instruments, Francis Potter.

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

KWGR, Cedar Rapids, Iowa (278m-1080ke), 12 midnight, Irolles.

KWCH, Getar Rapius, Iowa (270m-1000ke), 12 manushirolles.

KWWG, 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,
harmonlea; Tom Barber, planist; P. K. McNair, guitarist; E. L. Nye, yodler; 12:01-1 a. m. nevelty and jazz;
E. G. Toothman, announcer; Beth Sewell and Florine

Pierce, accompanists. WCBD, Zion, III. (344.6m-870kc), 9 p. m., annual grand

WGBD, Z1061, III. (344.0m-070xk), 5 p. m., annual same ensemble concert.
WGCO. Minneapolis-St. Paul, Minn. (416.4m-720ke), 7 p. m., WEAF.
WDAF, Kansas Clty, Mo. (365.6m-820ke), 6-7 p. m., Billy Adalr's orchestra; 11:45-1 a. m., Nighthawk frolic.
WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Jimmy Joy's orchestra; 8:30-9:30, Little symphony orchestra

whas, Louisville, Ky (399.8m-750kc), 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, Hawalian trio.

WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9, Bankers Life trlo.
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, banjoist; 6:50, orchestra; 9, classical.
WOC. Davenport, Iowa (483.6m-620kc), 6-6:30 p. m., WEAF; 7-9, WEAF; 9-9:30, Moline Plowboys.
WRR, Dallas, Texas (245.8m-1220kc), 6-7 p. m., Jack Gardner's orchestra; 8-9, musicale; 9:30-10:30, Dyo Duo.

WSMB, New Orleans, La. (319m-940kc), 8:30-10:30 p. m., Radio Revelers orchestra, Liberty theater orp. m., Radio keveters of the chestra, chestra, chestra, WSOE, Milwaukee, Wis. (245.8m-1220ke), 7 p. m., Elks etub studio; 8, Bible class, Dr. J. C. O'Hair; 9, WSOE

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

orenestra.

KFXF, Colorado Springs, Celo. (250m-1200kc), 9 p. m.,

Mrs. Geo, A. Edwards, soprano; Eula Whitemore

Mathews, planist; Jimmile Stevenson, violinist; Elsie

Hick, planist; H. C. Beattie, Scotch songs.

KOA, Denver, Colo. (322.4m-930kc), 6:30 p. m., Brown

Palace string orchestra.

Pacific Standard Time Stations

Pacific Standard Time Stations

KF1, Los Angeles, Calif. (467m-642kc), 7-8 p. m., popular song program; 8-9. varied program; 9-10. grand opera hour; 30-11. Pattleck 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. Bateries; 9-10, program, Dell's Ice Cream; 10-11, Warner Brothers frolle.

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

KGW. Portiand, Ore. (491.5m-610kc), 6-7-p. m., dinner concert; 8:20-10, vaudeville. "Yellow Kids." Ebony and Ivory; Brico Mortgage 5½ percenters; Tommy Luke's Flower Girls; 10-12. Cole McEliroy's dance orchestra. KHJ, Los Angeles, Calif. (405.2m-740kc), 6:30-7.30

p. m., Uncle John and the children; 8-10, Zoellner string quartet; 10-11, dance music.

KJR, Seattle, Wash, (334.4m-780kc), 8:30-10 p. m., Post Intelligencer 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-700kc), 6:30-7 p. m., States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, KTO string quartet; 10-10, Spanish songs, Francesco Ortega; 10-11, Mandarln cafe dance orchestra.

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

KTAB, Oakland, Calif. (239.9m-1250ke), 7-7:30 p. m., shopping hour; 8-10, studio program.

Friday, July 16

Headliners Today

 Attantic
 Eastern
 Central
 Meuntain
 Pacific

 8:30 p. m.
 7:30
 6:30
 5:30
 4:30

 KPNF (263m=1140kc)
 Widney Sisters.

 WEEI (348.6m-870kc)
 Neapoiltan
 Dutch
 Girls

 ouintet
 Girls
 quintet. 9:15 quintet.
9:15 8:15 7:15 6:15° 5:15
WMAQ (447.5m-670kc), "Cyrano de Bergerac." Prof.
B. G. Nelson.

DANCING Central Time

Central Time
Saturday

9. Webh, Wiaz, V
Wnye, Wreo; 9:10,
Wip; 9:30, Kths,
Wor, Wre; 10,
Ktwa, Koa, Kpo,
Wen, Wiaz, Wir,
Wnea, Wnye, Wor,
Wreo, Wtam; 11,
Ktwb, Kpo, Webh,
Webu, Who, Wiaz,
11, 50, Kfwb, Kpo, Webh,
Webu, Who, Wiaz,
11, 130, Kfoa; 11, 45,
12, Kgo, Kgw,
Wgbu, Wiaz, Wigd

w. onday Wiar, Wor; 9:15, V 10; Kths, Wgbu, Wgr, Wore, Wpg; Wor; 10:30, Wgep, Vgg, Wgep, Wgep, 11, Kgw, Koll, Wgep, Wer, Whn, Wiaz; 17:5, Wdaf Knx, Kpo.

Tuesday Tuesday

8, Wpg; 9, Wpg;
Rths; 10, Wbbm,
Webh, Wgbu, Wgn,
Wmea, Wnyc,
10:15, Kths; 10:30,
Whn; 10:45; Wsb
Kgw, Koil, Wgbu,
Wiaz; 11:45, Wdaf
Kgw, Khj, Knx,
Wdaf, Wjaz; 1, Wc

Wednesday Wednesday

9. Wex. Webh.
Wgep, Whin. Who,
Wmbh. Wmea,
9:15. Wahg; 9:30,
Who. Wor: 10,
Wbap, Wiaz,
Ween; 10:30, Wbap,
11. Koll. Kpo,
Wgbu, Weep, Wgr,
Wisa; 11:45, Wdaf
Kiwa, Kux, Kpo,
Wjid.
Thursday

Thursday
S. Wjr. 9, Webh,
Wgbu, Whn, Wjr. V
Wsai, Wlag; 9:05,
Wjp. 9:35, Wnyc
Kths, Wobm,
Wgbu, Whn, Wmea,
Wgi, 10:30, Kths,
Webh, Wgbu, Whn,
11:45, Wdaf; 12,
Khj, Knx, Kpo, W

Friday 8, Wwj; 9, Wex, Weel, Wgb u, Wmbb; 9:15, Wahg; Weau, Whn; 10, Kpo, Kths, Wgbu, Whn, Wgr, Wgj,

www.americanradiohistory.com

L ORGANIZATIONS DURING SUMMER

floats over the ether whenever the onfront the microphone of WCCO. have banded together and are known WCCO plans to give a series of inter-ams during the summer and besides sians will broadcast the Scandinavian Little German band. To the right g musicians who are popular with the reella column. Billie Allen Hoff, left, ger who wanders around from one

She is singing at the present time

'W. On the right is Mary Tudor, a

R. She sings and plays the piano.

DANCING Central Time

Saturday

Vebn, Wjaz, Wmbb,
Wreo: 9:10, Kiths,
9:30, Kiths, Wgns,
Wrc; 10, Kive,
Koa, Kpo, Weaf,
Wjaz, Wir. Wkre,
Winz, Wor, Wdj.
Wiam: 10:05,
10:30, Wamd;
Who, Webn,
Kpo, Webh, Wiaa,
Kpo, Webh, Wiaa,
Kpo, Webh, Wiaa,
Kpo, Web, Wiaa,
Kpo, Web, Wiaa,
Who, Wjaz, Woc;
Kfoa; 1:1:45, Wdaf;
Kgo, Kgw, Knx,
Wjaz, Wjjd.

%, onday Wecn: 9. Wgbu, Wor; 9:15, Wahg; Chs, Wgbu, Wgcp, Wnyc, Wng; 10:15, 10:30, Wgcp, Whn; Lgw, Koil, Wgbu, Wgr, Whn, Who, 1: 5, Wdaf; 12, Kpo.

Tuesday

Tuesday

Vpg; 9. Wpg; 9:30,
10, Wbbm, Weaf,
10, Wbbm, Weaf,
Wgbu, Wgn, Whn,
Wnye, Wpg;
Kths; 10:30, Kths,
10:45; Wsb; 11,
Keil, Wgbu, Whn,
11:45, Wdaf; 12,
Khi, Krix, Kpo,
Wiaz; 1, Wql.

Wednesday
Wex, Webh, Wgbu,
Whn. Who, Wjaz,
Whn. Who, Wjaz,
Whog, 9:30, Wbap,
Wor; 10, Kfve,
Weaf, Wgbu,
Wjaz, Wqj; 10:95,
10:30, Wbap, Whn;
Koil, Kpo, Webh,
Wggp, Wer, Whn,
11:45, Wdaf; 12,
Knx, Kpo, Wjaz,

Thursday

Thursday
Vjr; 9, Webh, Weel,
Whn. Wir, Wmbb,
Whag; 9:05, Wbz,
9:30, Wgbs, Wgy,
9:35, Wnyc; 10,
Wbbm, Weaf,
1, Whn, Wmca, Wpg,
10:30, Kths, Whn,
Wgbu, Wdaf; 12, Kgo,
Kbx, Kpo, Wijd.

Friday

Wwj; 9, Wex, Wehh, Wg b u, Wgcp,); 9:15, Wahg; 9:30, ; Whn; 10, Kfve, Kths; Wgbu, Wgcp, Wgr, Wqi.

 Atlantic
 Eastern
 Central
 Mountain
 Pacific

 9:30 p. m.
 8:30
 7:30
 6:30
 5:30

 KDKA
 (309.1m-970kc),
 Pittsburgh
 Musical
 insti

Friday, slient night for: CFAC, CKAC, CKNC, CKY, CNRC, CNRM, CNRO, CNRR, CNRW, KFXF, KLDS, KPRC, KPSN, KWWG, WBBR, WCAD, WCBD, WEAO, WGBS, WHAZ, WIP, WJAZ, WKRC, WLW, WLWL, WOR, WRC, WREO, WRVA, WSAI, WSMB, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CNRT, Toronto, Canada (356.9m-840ke), 10 p. m., CNRT string quartet; Apollo male quartet.

WCAU, Philadelphia, Pa. (277.6m-1080ke), 6:45 p. m., Hotel Pennsylvania orchestra; 7:30, Snellenburg instrumental trio; 8, Jackson's Whitppets; 8:45, Dwight Strickland, "poetteinn": 9, Regina Crooners; 9:15, Nasco Jolly Four; 9:45, Jack and Jill, songs; 10, Duke Moana, Hawalian; 10:15, sengs; 10:30, Myers' Musical Architects.

Moana, Hawatian; 10:15, sengs; 10:30, Myers' Musical Architects.

WEAF, New York, N. Y. (491.5m-610kc), 4-12 midnight, Happiness Candy Boys, La France. orchestra; Whittall Anglo-Persians; Hotel Bossert Marlne Roof orchestra; Pelham Heath Inn orchestra. WEBJ, New York, N. Y. (272.6m-1100kc), 7 p. m., Blue Bell serenaders; 7:30, Luna's Knickerbocker grill orchestra; 8, Philip Krumbotta, baritone; Isabel Henderson, soprano; 8:30, Luna's Marine band.

WELI, Boston, Mass. (348.6m-860kc), 6 p. m., Keith's Radio review; 7:30, Hiram and the Dairy Malds; 8, musicale; 8:30, Nosepolitan Dutch Grits quintet; 9, WEAF; 9:30, Musical Chef; 10, WEAF; 10:30, WEAF.

WFI, Philadelphia, Pa. (394.5m-760kc), 3 p. m., Sesquicentennial program.

WGR, Buffalo, N. Y. (319m-940ko), 9 p. m., WEAF; 9:30, Mrs. Decourcy Rose and friends; 10, WEAF;

WGR, Buffalo, N. Y. (319m-940ko), 9 p. m., WEAF; 9:30, Mrs. Decourcy Rose and friends; 10, WEAF; 11-1 a. m., Vincent Lopez' Holel Statler orchestra. WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio. WHN. New York, N. Y. (361.2m-830kc), 7 p. m., Charm club orchestra; 7:30, Treasureland Neighbors; 10, Palisades Amusement Park orchestra; 10:30, Strand roof orchestra; 11, Roseland dance orchestra; 12, Eddle Edward's Southerners from the Silver Slipper. WIZ, New York, N. Y. (454.3m-650kc), 7:05 p. m., George Olsen's Hotel Pennsylvania Roof orchestra; Ronnie Laddies; 10:30, Harold Stern's Hotel Belleclaire roof orchestra.
WLIT, Philadelphia, Pa. (394.5m-760kc), 8 p. m., reclail; 8:15, Pioneer Storage Battery company entertainers; 9, Schickerling artists; 10, Morning Glory club concert; 10:30, Rufus and Rastus; 11, Freshman Masterpiece hour.

concert; 10.30, Rutus and Rastus, 11, Freshman Master piece hour.

WMAK, Buffalo, N. Y. (265.3m-1130ke), 6:30-7:15 p. m., dinner music; 7:30-8:15, Musical Buffalo Athletic club; 8:15-10:30, WGY players; 10:30-11:30, University Terrace serenaders.

WMCA, New York, N. (340.7m-880ke), 6:30 p. m., Ernic Golden and his Hotel McAlpln orchestra; 8:45, Broadway association; 9, Paul Whiteman's Picadilly players; 9:30. Klein's Serenading Shoemakers; 10, Norman Peace, readings; 11, Jack Denny's orchestra;

11:30, Club Brighton orchestra: 12, McAlpin enter talners.

WNYC, New York, N. Y. (526m-570kc), 6 p. m., plano selections; 6:20, piano selections; 7:35, songs.

WOO, Philadelphia, Pa. (508.2m-590kc), 7:30 p. m., orchestra; 8, WOO orchestra; 9, LaFrance orchestra; 9:25, Fox theater studio program; 10, WEAF; 11, dance music.

9:25. Fox theater studio program; 10, WEAR; 11, dance music,
WOR, Newark, N. J. (405.2m.740kc), 6:45 p. m., Hotel Bretton Hall string ensemble.
WPG, Atlantic City, N. (299.8m-1600kc), 6:45 p. m., Arthur Sectt Brook, organist; 7, Hotel Ambassador dinner music; 7:45, Hotel Shelburne dinner music; 8:15, high school music Hotel Ambassador concert orchestra; 9:30, Hotel Traymore concert orchestra; 10:30, Hotel Traymore grill dance orchestra; 10:30, Store descriptions of the concepts of the conc

Eastern Standard or Central Daylight Saving Time Stations

Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1m.970kc), 5:30 p. m., dinner concert; 8:30. Plttsburgh musical institute.

KYW, Chicago, III. (535.4m.560kc), 8 p. m., Federal Master artists; 10:30-12. Congress carrival WADC. Akron, Ohlo (256.5m.-160kc), 8 p. m., studio program; 10. Roseland dance orchestra; 12, midnite dance and Radio revue.

WBAL, Baltimore, Md. (245.8m.-1220kc), 6:30-7:30 p. m., WBAL dinner concert orchestra; 7:30-8. Howard Thatcher, organist; 8-9, musical program; 9-10, Baltimore City Parks orchestra.

WBBM, Chicago, III. (225.3m.-1330kc), 5-6 p. m., Eddie Hansen, organist; 8-9, Safety Play period; 9-10, Glee Club Harmony four, Kay Ronayne, contralito; Lee Sime, "Hi and Si," Jack Crawford's High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Eunice Hoefer, organist.

Howard Osburn's Vanity Fair cafe orchestra, Eunice Hoefer, organist.

WBZ, Springfield, Mass. (333.1m-900ke), 6 p. m., Hotel Lenox ensemble; 9, Preludinoff, pianist; 9:30. Hotel Brunswick orchestra.

WENR, Chicago, III. (265.3m-1130ke), 6-7 p. m., Rauliand lyric trio; 8-9, Moody Bible Institute evening hour; 9-10, Arthur Dunas popular program; 12-2, a. m., All-American Ploneers.

WGES, Chicago, III. (249.9m-1200ke), 8-9 p. m., Joie Walsh, Tom Wheeler, Frank Hayes, W. Remington Weich, Tiffin theater organ; 11-1 a. m., Billy Fagan, Lew Buller, Chick Minmic, Esther Richards, Pat Ryan, Peggy O'Neill, Joe Morrison.

WGHB, Clearwater, Fla. (265.3m-1130ke), 8:30-10 p. m., plpe organ recital, Frederick Hubbard.

WGHP, Detroit, Mioh. (270.1m-1110ke), 6 p. m., dinner concert, Hotel Tulier; 10-11, WGHP entertainers; 11-12, Skylark dance band; 12-1 a. m., Gerald Marks' orchestra.

12, SKylark Gauce band, 12-1 a. h., Carlothestra.

WGN, Chicago, III. (302.8m-990kc), 6:45-7 p. m., request program, Drake concert ensemble, Blackstone string quintet; 7:15-8, Paul Ash's orchestra; 8-8:30, muslcal program; 8:30-9, Curtew Capers; 9-9:30, WEAF; 9:30-10, Phantom violin; 10-1010, Sam'r Henry; 10:10-10:22, Muslc Box; 10:22-11, WGN studio

WPAF; 9:30-10, Phantour vorm.
Henry; 10:10-10:22, Musle Box; 10:22-11, WGN studio ensemble.
WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Senside hotel trio.
WJAZ, Chicago, III. (329.5m-910kc), 9-12 midnight, Earl Hoffmar's Chez Plerre orchestra; the Quips that Pass in the Night; Joan Miller, contraito; Henry Meinke, planist; Frank Mason, violinist; Chez Plerre Hawalian

guartet.

Wild. Mooseheart. III. (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, band, etc.; 9-11, Senator Harold C.
Kessinger, Palmer House Victorians; Jean St. Anne;
11:30-12:30 a. m., Settin' Up hour,
Wilb. Chicago, III. (302.8m-990kc), 11-11:20 p. m.,
Correll and Gosden; 11:20-1 a. m., Liberty studio ensemble; Drake hotel dance orchestra; Fred Hamm's orchestra.

chestra.

WLS, Chicago, III. (344.6m-870kc), 6:30 p. m., Elsie
Mae Look. organist; 6:45, Maurie Sherman's College
Inn orehestra; 7, Elsie and Ralph in lullaby time; 7:15,
Rose Sherman, violinist; Marie Ludwig, harpist; 7:30,
Al Melgard, organist; 8:30, Grace Wilson, contralto
10, popular musle program; 11-12, Ralph Emerson

organist.

MAQ. Chicago, Ill. (447.5m-670kc), 6 p. m., Chicago theater organ; 6:20. Wide-awake club; 8, George Simons, tenor; 8:15, readings, "Cyrano de Bergerac."

Prof. B. G. Nelson; 9:30, Madame Ella Spravka, planist.

WMBB, Chicago, III. (249.9m-1200kc), 7-8 p. m., Trianon
duo, Frank Bordner, baritone; John Stamford, tenor;
WMBB male trio, Fella Cook, contralto; Harold Thorpe,
pianist; old home songs program; 9-11, Trianon orches-

EDUCATIONAL FEATURES

8 7 6 5 WDAF (365.6m-820kc), School of the Air. 1:15 a.m. 12:15 11:15 10:15 9:15 KGO (361.2m-830kc), Educational features.

Tuesday

Atlantic Eastern Central Mountain Pacific 8 p. m. 7 6 5 4 WDAF (365.6m-820kc), School of the Air. I2 m. 11 10 9 KTAB (239.9m-1250kc), Mills college.

Wednesday Atlantic Eastern Contral Mountain Pacific 6:30 p. m. 5:30 4:30 3:30 2:30 WNYC (526m-570ke), Spanish lesson, V. H. Ber-

 8
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 WDAF (365.6m-820kc), School of the Air.
 8:30
 5:30
 4:30

 WBZ (333.1m-900kc), Radio Nature league.

Atlantic Eastern Central Mountain Pacific 9 p. m. 8 7 6 5 WHB (365.6m-820kc), Automotive talk. WMAQ (447.5m-670kc), Lecture, Northwestern uni-

11:30 10:30 9:30 8 KHJ (405.2m-740kc), Astronomy.

Thursday
Atlantic Eastern Central Mountain Pacific 7:30 p. m. 6:30 5:30 4:30 3:30 WLW (422.3m-710ke), Educational talk.

8 7 6 5 4 WDAF (365.6m-820kc), School of the Air. 9:30 8:30 7:30 6:30 5:30 WOI (270.m-1110kc), Industrial Science, sh course, "State Parks of lowa."

Atlantic Eastern Central Mountain Pacific
6:30 p. m. 5:30 4:30 3:30 2:30
WNYC (526m-570kc), French Iesson.

B 7 6 5 4
WDAF (365.6m-820ke), School of the Air.
WOAW (526m-570ke), "Musical Appreciation,"
Hester Bronson Copper.

11:45 10:45 9:45 8:45 KFWB (252m-1190kc), Nature talk.

tra, Dell Lampe; Woodlawn theater orchestra. Armin F. Hand; Kreuzer and Dullon, "The Banjo Barons"; WMBB male trio; Cecil and Esther Ward, Hawalian guitar duc; Bob Bennett, plano and celeste noveltes; in popular program.

WOK, Chicago, Ill. (217.3m-1380kc), 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-1240kc), 9 p. m., classical concert; Van Wyck's Instrumental quartet; 10:10, Ramona Radio revelry; Ramona Gardens orchestra:
WORD, Batavia, Ill. (275m-1090kc), 7 p. m., North Shore line; 7:45, news; 9, program.

WQJ, Chicago, Ill. (447.5m-670kc), 7-8 p. m., Ralnho Gardens orchestra; Maridean Borresen, baritone; Peter Grosso, tenor; Jean Carlson, soprano; 10-2 a. m., Rainbo Gardens orchestra; Flo and Ray; Romo Vincent, boy baritone; Murlel Olsen, contraito; Johnny Poat, baritone.

WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders.

WRVA, Richmond, Va. (256.3m-1170kc), 7 p. m., Hotel Richmond orchestra; dinner music; 8:35, Negro Spirituals, Negro chorus, dialect stories from the Southland; 10, Golden Gate Syncopators orchestra; 11, Carry Me Back to Old Virginny.

WSWS, Chieago, Ill. (275m-1090kc), 6 p. m., Georgia Gray, violinist; John Clark, haritone; Zola Haynes, crhestra; 9, WEAF; 9:30, Hawaiian program; 11, Euclid Beach Park orchestra.

WTAM, Claveland, Ohie (389.4m-770kc), 6:30 p. m., Hotel Cleveland orchestra; 8, Euclid Beach Park orchestra; 9, WEAF; 9:30, Hawaiian program; 11, Euclid Beach Park orchestra.

WTIC, Hartford, Conn. (475.9m-630kc), 7 p. m., Laura C. Gaudet, plano recital; 7:15, "Piddle an Bec"; 7:33, Colt Park Municipal dance orchestra; 8:30, First Presbyterian church quartet of Bridgeport, Conn.; 9:30, WTIC's mail bag; 9:45, "Debutants" period. WTIC's mail bag; 9:45, "Debutants" period. WTIC's hark first porchestra; 9, WEAF.

Central Standard Time Stations

Central Standard Time Stations

KFKX, Hastings, Nobr. (288.3m.1040kc), 9 p. m., musical program, Hotel Clarke studio.

KFNF, Shenandoah, 10wa (263m.1140kc), 7 p. m., S. S. lesson discussion; 7:30, Widney ststers.

KFRU, Bristow, Okla, (374.8m.800kc), 6-9 p. m., Josephine Storey-White.

KMA, Shenandoah, 10wa (249.9m-1200kc), 9-11 p. m., mixed musical program.

KMOX, St. Louis, Mo. (280.2m-1070kc), 6:30 p. m., Jacquinot Jules, organist; 7. KMOX Radio orchestra, Buster's Canaries; 8, KMOX Radio orchestra; A. W. Snyder, accordion solo-ist; C. L. Weatherwax, Jr., baritone: 9, KMOX Radio orchestra; Ex Sirvell, Bill Snyder; 9:30, Banalogio; 10, KMOX Radio orchestra; Flelen Musick, soprano.

KOIL, Council Bluiffs, 10wa (277.6m-1080kc), 7:30 p. m., Paramount program, Mrs. Henry Danneel, soprano; 8:30, Dresher Bruthers, Inc., Omaha; 11, Hotsy-Totsy

hour. KWCR, Cedar Rapids, lowa (278m-1080kc), 9 p. m.

hour.

KWCR, Cedar Raplds, lowa (278m-1080kc), 9 p. m., studio program.

WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30 p. m., Allene Patterson Duff, contralto; 9:40-11, Mineral Wells Chamber of Commerce,

WCOO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 6:15 p. m., Hugo Philler Goodwin, organist; 8. WEAF; 8:30, Sumpmann trio; Mabel Pelletier, contralto; Wayne Hugelboom, pianist; Paul Oberg, accompanist; 10:05, Nankin cafe orchestra.

WCOA, Pensacola, Fla. (222m-1350kc), 7 p. m., recital. First Presbyterian church choir; David Lloyd, tenor; Mrs. Henry S. Brown, contralto; John D. Thomas, planist; witticisms, Dr. C. H. Nabors; H. I. Seaburg, vocal solos; Hawalian melodies, Churchill and Fillingtm.

WDAF, Kansas City, Mo. (365.6m-820kc), 6-7 p. m., Harry, Frank, organist; 8-8:30, WEAF; 8:30-9:30, varled musical program; 11:45-1 a. m., Nighthawk frolke.

varied musical program; 11:45-1 a. m., Nighthawic frolle, WFAAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Artle Collins and his orchestra; 8:30-9:30, Henri La Bonte's artists musicians.

WGBF, Evansville, Ind. (236m-1270kc), 7 p. m., dance musical; 8, auto tour.

WHAS, Leuisville, Ky. (399.8m-750kc), 7:30-9 p. m., concert, auspices of Liberty Insurance bank.

WHB, Kansas City, Mo. (365.6m-820kc), 7:30-8 p. m., Sweeney Radio orchestra.

WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra is 9, Herring Motor band; 11-12, Philbreck and his Younker (439.5m-570kc), 8:30 p. m., Hotel Gayoso orchestra; 11, Bob Miller.

WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., San Antonio College of Music.

WOAW, San Antonio, Texas (394.5m-760kc), 8:30 p. m., weeney 6:30, orchestra; 6:50, Pultan hour.

WOC, Davenport, Gowa (483.6m-620kc), 8:30 p. m., WFAF; 8:30-9:30, Mrs. E. E. Sheltey, soprano; Howard A. Carroll, tenor; Francis Armil, planist.

WOS, Jefferson City, Mo. (440.9m-680kc), 8:20 p. m., Caloway string band, Jack Selby, Hill Brothers, Roy Wills.

WRR, Dallas, Texas (245.8m-1220kc), 6-7 p. m., Frank

Caloway string band, Jack Seuty, All.
Wills.
WRR, Dallas, Texas (245.8m-1220ke), 6-7 p. m., Frank
Wright, planist; Mercedes McManus, blues singer; 8-9,
Magnolia Beaumont band; 11-12, Irolic.
WSM, Nashville, Tenn. (282.8m-1060ke), 7 p. m., Andrew
Jackson hotel trlo; 8. Peabody ensemble singers, Prof.
D. R. Gebhart, director; 10, Mrs. Caldwell Bennett, soprano; Virginia Martin, accompanist; 10:30, F. Arthur
Henkel. organist. prano; Virginia Martin, accompany Henkel, organist. WSOE, Milwaukee, Wis. (245.8m-1220kc), 7 p. m., din-ner concert, Elks club; 8, fishing talk, Bud Kirkham;

Mountain Standard Time Stations KFXF, Colorado Springs, Colo. (250m-1200kc), 8 p. m., Juvenile program, Lois Hunt, Michael Foley and Frank-lin Fuller.

KOA, Denver, Colo. (322.4m-930kc), 6:30 p. m., Brown Palace string orchestra; 8, open-air concert, Denver municipal band.

Pacific Standard Time Stations

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m., Semiclassical program; 8-9, Acolian organ; 9-10, Harry Decker's Hawaiians; 10-11, Packard Baliad hour.

KFWB, Hollywood, Calif. (252m-1190ke), 6-7 p. m., Pontiae Six dinner hour; 7:30-8, Paralia Studios program; 8-9, program, John Wright, The Bight Tailor; 9-10, varied program; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-830ke), 6-6:55 p. m., Bem's Little symphony orchestra.

KGW, Portland, Orgon (491.5m-610kc), 6-7 p. m., dlnner concert; 8-9, vocal and instrumental music; 10:30, Hoot Owls.

KHJI, Los Angeles, Calif. (405.2m-740kc), 6:30-7:30

p. m., Uncle John and the children; 8-10, Times de luxe program; 10-11, Clement's Super-Six dance orthestra.

luxe program; 10-11, Clement's Super-Six dance orchestra.

KNX, Hollywood, Calif. (336.9m.890kc), 7-8 p. m., Loftus Land company program; 8-9, Jell-X-Cell program;
9-10, Ordor of Optimistic Donuts; 10-11, Ecilywood
Amorican Legion fights; 11-12 midnight, Ambassador
hotel dance orchestra.

KPO. San Francisco, Calif. (428.3m.700kc), 6:30-7 p. m.,
States Restaurant orchestra; 8-9, studio program; 9-10,
Palace Hotel Rose room dance orchestra; 10-11, States
Restaurant orchestra.

Saturday, July 17

Headliners Today

Atlantic Eastern Central Mountain 7:25 p. m. 6-25 5:25 4:25 4:25 3:25 WJZ (454.3m-660kc), WRC (468.5m-640kc), WGY (379.5m-790kc), New York Philharmonic. 8:30 6:30 5:30 4:30 WEAF (491.5m-610kc), WGR (319m-940kc), G352.7m-870kc), Goldman band concert. WLW (422.3m-710kc), Seckatary Hawkins Radio club. (532.7m-870kc), Goldman band concert. WLW (422.3m-710kc), Seckatary Hawkins Radio club. WIP (394.5m-760kc), Episode drama, Sesquicen-tennial.

tennial. 8:30 7:30 6:30 5:30 WSAI (325.9m-920ke), Norrine Gibbons. 10 9 8 7 6 KMOX (280.2m-1070ke), Porter Brown. 10:15 9:15 8:15 7:15 6:15 WCCO (416.4m-720ke), Gertrude O'Neil Ganley, reader.

WCCO (416.4m-720gc), Gertrude O real Gar reader. 10:30 9:30 8:30 7:30 WMC (499.7m-600kc), Memphis Plectrum orches 11:30 9:30 8:30 1CYW (535.4m-550kc), Congress carnival. 12 m. 11 10 9 KPO (428.3m-700kc), Mandarin cafe orchestra.

Saturday, silent night for: CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, CNRW, KFKX, KFUO, KFXF, KMA, KTAB, KWWG, WBAL, WCAL, WCAU, WCBD, WCX, WEBJ, WEL, WGBF, WGCP, WGHP, WGST, WHA, WHAD, WHAZ, WHN, WHO, WJAR, WLIT, WLWL, WOO, WOS, WRVA, WTAG, WTIC, WWJ.

Atlantic or Eastern Daylight Saving Time Stations

FCA. Toronto, Can. (356.9m-840ke), 9 p. m., CFCA's

CFCA. Toronto, Can. (356.9m-840ko), 9 p. m., CFCA's summer orchestra.
WBBR, New York, N. Y. (272.6m-1100kc), 8 p. m., Prof. Charles Rohner, violinist, 8:10. Fred Twaroschk, tenor; 8:45. Prof. Charles Rohner, violinist, WEAF, New York, N. Y. (491.5m-610ko), 4-12 midnight, Hotol Waldorf-Astoria; musical comedy hits, WEAF Musical Comedy troupe; Goldman band convert; Colive Cornell, soloist; Goldman band concert; Ben Bernie's orchestra.
WFI, Philadelphia, Pa. (394.5m-760kc), 8:30 p. m., Episotic drama, Sesquicentennial.
WGBS, New York, N. Y. (315.6m-950ko), 6 p. m., Uncle Geebee; 7:45, Royal Arradian orchestra; 10:30, Arrowhead Inn dance ogrhestra.

Geebee; 7:45, Royal Arcadian orcnestra; 10.00, head Inn dance orchestra; head Inn dance orchestra; WHAR, Atlantic City, N. J. (275m-1090kc), 7:30 p. m., lecture period; 8. Seaside hotol trio.
WIP. Philadelphia, Pa. (508.2m-590kc), 8:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8:13, Hotol Ambassador orchestra; 9, Traymore orchestra; 945, Emmet Welch's Minstrels; 10:15, Condan Pier dance orchestra; 10:45, Ted Weens' dance

time stories; 8:13, Hotel Ambassador orchestra; 9, Traymore orchestra; 9:45, Emmet Welch's Minstrels; 10:15, Garden Pier dance orchestra; 10:45, Ted Weems' dance orchestra; 11:30. Hotel Shelburne dance orchestra WiZ, New York, N. Y. (454.3m-660kc), 7:05 p. m., Walderf-Astoria Roof orchestra; 8:25, Stadium Philharmonic concert, WRC; 10:30, Hotel Astor Roof orchestra. WMAK, Buffalo, N. Y. (265.3m-130kc), 6:30-7:15 p. m., dinner music, Onondaga hotel; 7:30-8:30, Shea's Buffalo hotater; 8:30-9:30, musicale; 9:30-10:30, musicale; 10:30-11:30, dance program, WGY.
WMCA, New York, N. Y. (346.7m-880kc), 7 p. m., Tappen's orchestra; 8, musical program; 9, inusical program; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, McAlpin entertainers.
WNYC, New York, N. Y. (326m-570kc), 7 p. m., plano selections; 7:15, songs.

WNYC, New York, N. Y. (220m-370ke), i.p. m., plano selections; 7:15, songs.
WOR, Newark, N. J. (405.2m-740ke), 6:15 p. m., Jacques Jacobs Hotel Shelton ensemble; 7, Jacques Jacobs Hotel Shelton ensemble; 7:30, Oreste's Queensland orchestra; 8:30, Arthur Pryor's band; 9:15, Casino orchestra; 9:45, Berkley-Carteret concert orchestra; 10:15, brass quartet; 10:30, Society orchestra; 11:15, Ben Bernie Berkley-Carteret.

Carteret.

WPG, Atlantic City, N. J. (299.8m-1000kc), 6:45 p. m.,
Arthur Scott Brook, organist; 7, Hotel Morton dinner
music; 7:30, Hotel Shelburne dinner music; 8, Hotel
Ambassador dinner econect; 8:30, studio program; 9,
Hotel Traymore concert orchestra; 9:45, Enmett Welch's

WGHP WILL GIVE CAMPERS ADVICE

Saturday, July 17

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

Eastern Standard or Central Daylight

Eastern Standard or Central Daylight
Saving Time Stations

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

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

WADC, Akron, Ohle (285.5m-1160kc), 9 p. m., Roseland
dance orchestra.

WADC, Akron, Ohlo (285.5m-116Ukc), 9 p. m., Roseland dance orchestra.

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

Osdorn's rainty kent delto detection, artists.

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

WENR, Chicago, III. (265.3m-1130kc), 6-7 p. m., Rauland lyric tric; 8-9, Arthur Dunas popular program; 9-10, All-American Ploneers; 12-2 a. m., frolio.

gram; 9-10, All-American Ploneers; 12-2 a, m., frolic.

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

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

WHAB, Atlantic City, N. J. (275m-1696kc), 8 p. m., Seaside hotel trio.

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

WIM Macahaart. III. (370.2m-810kc), 4:45-7 p. m.,

baritone; Marie Willin, Suprairo, Marie Guartet.

//JID. Mooseheart, III. (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. Isabel Defaut, Palmer House Victorians, Simeon Oliver; 9-11, Isabel Defaut, Palmer House studio, Cook Sisters; 11-1, Settin Up Hour.

Palmer House studio, Cook Sisters; 11-1, Settin' Up Hour.

WLIB, Chicago, III. (302.8m-990kc), 7:05-7:15 p. m. Old-Fashioned Almanack; 7:15-7:30. Drake concort 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, III. (344.6m-870kc), 2:30 p. m., Elsle Mae Look, organist; 7, Luliaby 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-710kc), 7 p. m. Johanna Grosse, organ concert; 7:30, meeting of the Seckatary Hawkins Radio club; 8, Johanna Grosse; 8:30, Henry Theis' Castle Farmers.

WMAQ, Chicago, III. (249.5m-670kc), 6 p. m., Chicago theater organ; 6:30, Jack Chapman's orchestra; 8:30, photologue; 9, Chicago theater weekly Radio revue.

WMBB, Chicago, III. (249.5m-1200kc), 7-5 p. m., Trianon ensemble, Elizabeth Roehlk, cellist; Margaret Conrad, violinist; Preston Graves, planist; Davida Boyd, whistler.

WOK, Chicago, III. (217.3m-1380kc), 6-7 p. m., Tip-

Freddie Wittmer; Matthews Sisters; 12 midnight, Witching hour.
WTAM, Cleveland, Ohio (389.4m-770kc), 6 p. m., Jack Horwitz Collegian serenaders; 7:30, studio program; 8. Hollenden hotel orchestra; 9, Novelty studio program.
WWJ, Detroit, Mich. (352.7m-850kc), 7:30 p. m., Goldman band concert.

Central Standard Time Stations

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

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

shall van Pool and his hadlo KvOO orchestra. KLDS, independence, Mo. (440.9m-680kc), 8 p. m., studio program arranged, Mrs. Wm. De Bernadi. KMA, Shenandoah, lowa (252m-1190kc), 9-11 p. m., Ye Olde Tyme Gang orchestra; Willy Cunningham, the farmer Scotchman.

farmer Scotchman.

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

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 6:30 p. m., Miss Leo Kearse, 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-630kc), 8-8:30 p. m. Vesper symphony; 9:30-11, Hired Hand's Little sym

phony.

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

tenor; Ruth McKibben, accompanist.

WDAF, Kansas City, Mo. (365.6m-20kc), 6-7 p. m., orchestra; 11:45-1 a. m., Nighthawk frolic.

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

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

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

WOAW. Omaha, Nohr. (526m-570kc), 6:50 p. m., or-

chestra; 9. Omaha Printling company; 10, Elks club. WOC. Davenport, lowa (483.6m-620kc), 9-10 p. m., Bernard Regan, baritone; May Chambers, soprano; Emil Haas, reader. WRR, Dallas, Texas (245.8m-1220kc), 6-7 p. m., dinner hour concert; 8-9, Elena Munster, soprano; Bob Reeves, tenor; Babe Musgrove, baritone; Mrs. Betty Judd, pianist.

pianist.
WSM, Nashville, Tenn. (282.8m-1060kc), 7 p. m., Andres
Jackson hotel trio; 8, popular and barn dance program.
WSMB, New Orleans, La. (319m-940kc), 8:30-10:30
p. m., Theodore Roehl and associate artists. WSOE, Milwaukee, Wis. (245.8m-1220kc), 7 p. m., din-ner concert, Elks club; 8:30, Sunday school lesson.

Mountain Standard Time Stations FXF, Colorado Springs, Colo. (250m-1200kc), 9 Sells-McClusky first orchestra.

Pacific Standard Time Stations KFI, Les Angeles, Calif. (467m-642ke), 7-8 p. m., Al Wesson and his orchestra; 8-9 p. m., Angelus string trio; 9-10. Ray Canfield, concert ukuleie; 10-11, Pack-ard Radlo club; 11-2 a. m., KFI midnight frolic, KFWB, Hollywood, Calif. (252m-1196ke), 6-7 p. m., Pontiac Six dinner hour; 7:30-8, program, Stoll, HeckQueen 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 inger and Hepp, Inc.; 8-11, Warner Brothers Saturday night frolic.

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

KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner cencert; 10-12 midnight, Herman Kenln's orchestra; Punch Green, planist.

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

KJR, Scattle, Wash. (384.4m-780kc), 8:30-10 p. m., L. C. Warner Co., studio program. Brondway Department store; 10-11, Ambassador hotel dance orchestra; 11-1 a. m., Edgewater club.

KPO, San Francisco, Calif. (428.3m-700kc), 6:30-7:30

a. m., Edgewater club.

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

KPSN, Pasadena, Calif. (315.6m-950ko), 8-9 p. m.,

Star-News instrumental ensemble and vocal artists.

Sunday, July 18

Headliners Today

Headliners Today

Attantic Eastern Central Mountain 3:20 p. m. 6:20 5:20 4:20 3:20
WEAF (491.5m-610tc), WEEI (348.6m-870tc), KSD (545.1m-550tc), WCAP (468.5m-640tc), WWJ (352.7m-850tc), WJAR (305.9m-980tc), WCAE (461.3m-650tc), Capitol Family.

7 6 5 5 4
WOK (2171.3m-1280tc), Katz and his Kittens. 9:15 8:15 7:15 6:15 Fils WFAA (475.9m-630tc), Tom D. Collins and his Gibson mandolin and guitar club. 9:30 ## 8:30 5:30
WOK (256m-570tc), Fourteenth Cavalry band. 9:45 ## 8:45 6:45 6:45 6:45 Fils WFAF (491.5m-610tc), WEEI (348.6m-870tc), WCSH (305.9m-980tc), WSAI (325.9m-920tc), Goldman band concert. 10:15 9:15 6:15 6:15 WEEI (348.6m-870tc), WEEI (348.6m-870tc), WCSH (256.3m-1170tc), WSAI (325.9m-920tc), Goldman band concert. 10:15 9:15 8:15 7:15 6:15 WEEI (348.6m-870tc), Keith's Radio revue. 12 m. 11 10 9

KNX (336.9m-890tc), Circle theater organ.

Sunday, silent night for: CFAC, CHIC, CKAC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRY, CNRW, KFAB, KFH, KFKX, KFOA, KFXF, KMA, KWMG, WAHG, WDAF, WEDA, WEBJ, WEBW, WFI, WGBF, WGHB, WGHP, WHAS, WHAZ, WJAZ, WJJD, WJR, WLIT, WLWL, WMAQ, WMC, WNYC, WOAW, WOI, WOOD, WRC, WREO, WRVA, WSB, WSM, WTAM, WTIC.

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving
Time Stations

CFCA. Toronto, Can. (336.9m-840kc), 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-1100kc), 10 a. m.,
Bible lecture, music; 2 p. m., Watchtower orchestra;
9, Watchtower instrumental trio.
WCAU, Philadelphia, Pa. (277.6m-1080kc), 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 Garden orchestra; 8:30, Barry O'Moore
and the Bonwit Teller ensemble.
WEAF, New York, N. Y. (491.5m-610kc), 3-4 p. m.,
Greater New York Federation of Churches; 4:30, vespers, Federation Mixed quartet; 5:30, Chevalier Lurig
Constantino, pianist; 6, Carl Hollins, baritone; 7:20,
Capitol Family, WEEI, KSD, WCAP, WWJ, WJAR,
WCAE; 9:15, Atwater Kent Radio haif wur WEEI,
WGAR, WCAP, WWJ, WSAI, WGN, WCCO, KSD;
9:45-10.15, Goldman band concert, Waino Kauppi, cornetist, WEEI, WJAR, WTAG, WCSH, WSAI,
WEAF; 9:15, WEAF; 9:45, WEAF; 10:15, Keith's
Radio review.
WGR, Buffalo, N. Y. (319m-940kc), 8:30-10 p. m.,

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

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

Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50. Chelsea Baptist church; 9, Seaside hotel ensemble.

WHN, New York, N. Y. (36:12m-830ke*, 7:30 p. m., Calvary Baptist church; 10:45, Janssen's Hofbrau orchestra; 12, Sophie Tucker* Playground orchestra; 12, Sophie Tucker* Playground orchestra.

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

WIZ. New York, N. Y. (454.3m-680kc), 6 p. m., staff recital; 6:45, Hotel Pemsylvania concert orchestra; 7:05, Park avenue Baptist church (2:11lon; 7:25, Hotel Pennsylvania concert orchestra; WGY; 9:30, Godfrey Ludlow, violinist; Anna Louise Faber, pianist.

WMAK, Buffalo, N. Y. (265.3m-1130ke), 7 p. m., Churchill Tabernacle evening service.

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

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

Eastern Standard or Central Daylight

Saving Time Stations
Chleage, III. (535.4m-566ke), 11 a. m., Second
byterian church; 4, studio concert; 9:30-11, classical concert. WBAL, Baltimore, Md. (245.8m-1220ke), 7:30-8:30 p. m.,

WBAL, Baltimore, Md. (245.8m-1220kc), 7:30-8:30 p. m.,
WBBM, Concert orchestra.
WBBM, Chicago, Ill. (225.3m-1330kc), 5-6 p. m., Eddio Hansen, organist; 8-10. Jack Crawford's Alemite High Pressure orchestra, Howard Osburn's Vanity Fair Cafe orchestra, Pauline Atlass, violinist; Maurice Silverman, tenor; Kay Ronayne, contraito; Hazel McBroom, contraito; Fred L. Jeske, baritone; Fforence Sangor, pianist; 12 midnight, The Nutty cult.
WENR, Chicago, Ill. (265.3m-1130kc), 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 Ploneers.

Ploneers. WGES, Chicago, III. (249.9m-1220kc), 10:30 a. m., M. E. Church; 11:45, high mass, Our Lady of Sorrows church; 5-7:40 p. m., Casey and Gervals; Sylvia Goldsmith, Jole Walsh, Frank Hayes, Tom Wheeler, Pat Ryan, Esther Richards; Joe Morrison; 11-1 w. m., frolic.

Goldsmin, Joie Waish, JTank Hayes, Tom Wheeler, Pat Ryan, Esther Richards; Joe Morrison; 11-1 a. m., frolic. WGHP, Detroit, Mich. (270.1m-1110kc), 11 a. m., Grosse Pointe Memorial church. WGN, Chicago, III. (302.8m-990kc), 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 studie ensemble. WGY, Schenectady, N. Y. (379.5m-790kc), 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, Allantic City, N. J. (275m-1090kc), 10:45 a. m. Chelsea Baptist church; 2:15 p. m., Seaside hotel trio; 7:50, evening service; 9, classical program, Seaside hotel ensemble. WIAZ, Chicago, III. (329.5m-910kc), 7-9 p. m., Girvin trio; Clara Haffenberg, soprano; Mae Doelling Schmidt, Planist. WJD, Mooseheart, III. (370.2m-810kc), 12-1 p. m., How-

planist.
WJID, Meoseheart, III. (370.2m-810ke), 12-1 p. m., Howard L. Peterson, organist; 1:30-3:39, Mooseheart Sunday concert; 2:30-4, Mooseheart Radio Bible class; 3-5:39, Palmer House Sunday symphonic orehestra.
WLIB, Chicago, III. (302.8m-990kc), 5-5:45 p. m., Liberty studio ensemble; 5:45-6:15, Edward Benedict, organist.

organist.
WLS, Chicago, III. (344.6m-870kc), 7-8:55 p. m., WLS
Little Brown Church in the Vale, WLS trio and Sol

WLS, Chicago, III. (344.6m-870kc), 7-8.55 p. m., WLS Little Brown Church in the Vale, WLS trio and Sol Heller, bartione.

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

WMBB, Chicago, III. (249.9m-1200kc), 7-8 p. m., Triamon ensemble, vocal artists, sunset musicale; 9-11. Trianon orchestra. Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Billie Allen Hoff, Vail and Abbott, Harmony duo, Irene and Albert Patten, Hawailan gutar duo, Joe Parson, baritone; Bob Bennett, plano and celeste novelties.

WOK, Chicago, III. (217.3m-1380kc), 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 hls Kittens' orchestra; Capitol theater program.

WOOD, Grand Rapids, Mich. (241.8m-1240kc), 9 p. m. Corduroy Tire Little symphony orchestra; instrumental quartet; 11, Wild and Woody Workers' club.

WQJ, Chicago, III. (447.5m-670kc), 3-4 p. m., Sunday afternoon concert hour; song cycle. "Florina" North Shore quartet; 8-10, Rainbo Gardens orchestra; Helen Ginsberg, soprano; Clarence Claussen, baritone; Sheppard Levine, tenor; Henrietta Nolan, violinist; other sarists.

WREO, Lansing, Mich. (285.5m-1050kc), 10 a. m.,

pard define, control of the control services.

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

WSAI, Untimas;
7:45 p. m., chimes; 8, sermonette; 8:10, WEAF,
WEAF,
WSWS, Chicago, III. (275m-1090kc), 11 a. m., Moody
church; 3:30-5 p. m., popular service, Rev. Philpott;
7-9:30, song service.
WTAM, Cleveland, Ohio (389.4m-770kc), 10:30 a. m.,
First Methodist church; 7 p. m., Park theater orchestra;
8, twilight musicale.
WJ. Detroit, Mich. (352.7m-850kc), 10 a. m., First
Presbyterian church; 2 p. m., Detroit News orchestra;
6:20, WEAF; S:15, WEAF.

Frestydethal thorton; 2 p. m., Detroit News orchestra; 6:20, WEAF; 8:15, WEAF;

Central Standard Time Stations
KFNF, Shenandoah, lowa (263m-1140ke), 8 p. m.,
Christian church services.
KFRU, Brattow, Okla. (34.8m-800ke), 12:30-7 p. m.,
Plu, Brattow, Okla. (34.8m-800ke), 12:30-7 p. m.,
KBLS, Independent of M., (440.8m-680ke), 6:30 p. m.,
KLDS, Independent of George Anway, Lenor: Frank
Russall, bass; sermonet; Ralph W. Farrell; 9:15, studio
service; Robert Miller, organist; Albert Brackenbury,
bass; Vivial Latta, soprano; sermonet, Apostle Paul
M. Hanson.
KMOX, St. Louis, Mo. (220.2m-1070ke), 8 p. m., KFQA,
The Principla; 9, Skouras Brothers Sunday night club.
KOIL, Council Bluffs, lowa (277.6m-1060ke), 7:30 p. m.,
Paramount program; Hotsy Totsy
KPRC, Houston, Texas (296.6m-1010ke), 8 p. m., First
Methodist church, Rev. A. Frank Smith, pastor; 9:30,
Skyline studios band concert; 11, Texan theater pipe
organ concert.
KWOR, Cedar Rapids, lowa (278m-1080ke), 5 p. m.,
vesper services; 9:30, Sunshlne mission.

GERTRUDE O'NEIL GANLEY AT WCCO

Sunday, July 18

WBAP, Fort Worth, Texas (475.9m-630kc), 11 a. m., First Methodist church; 5-6 p. m., musicale; 9:80-11, Sorth-White Top o' Texas orchestra.

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

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

WCBD, Zion, Ill. (344.6m-870kc), 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-630kc), 2:30-3 p. m., Farmers' hour; 6-7, Radio Bible class; 8-9, First M. E. church; 11-12, Ligon Smidit's orchestra.

WHAS, Louisville, Ky. (399.8m-750kc), 9:30 a. m., organ prelude; 19, Virgina Avenue Methodist church. WHB, Kansas City, Mo. (365.6m-820kc), 9:40 a. m., Linwood Bivd. Christian church; 11:15, Independence Blvd. Christian church; 11:15, Independence Blvd. Christian church; 9, m., evening services; 11:15, Morrill Moore, organist; Don Anchors, poet.

WHO, Des Moines, Iowa (526m-570kc), 3-6 p. m., Bankers Life Little symphony orchestra; Myrtle Williams, sopramo; 7:30-8:50, Fourteenth Calvary band.

WMC, Memphis, Tenn. (499.7m-600kc), 11 a. m., services, Second Presbyterian church. 7:45, Central Christian church. WBAP, Fort Worth, Texas (475.9m-630kc), 11 a. m., First Methodist church; 5-6 p. m., musicale; 9:30-11,

First Presbyterian church; 7:45, Central Christian church.

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

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

WSM, Nashville, Tenn. (282.8m-6060kc), 7:30 p. m., First Presbyterian church.

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

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4m-930kc), 11 a. m., Augustana Lutheran church; 6:30 p. m., KOA choristers; 8, open-air concert, Denver municipal band. Pacific Standard Time Stations
FI. Les Angeles, Calif. (487m-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 or

chestra.

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

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

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

services; 7:30-9, evening service; 9-10, Chevrotet symphony orchestra.

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

KIR, Seattle, Wash. (384.4m-780kc), 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.

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

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

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

Monday, July 19

Headliners Today Eastern Central Mountain Atlante Essent Order Lines," historical play. Media (1922,4m-930lcc), "Border Lines," historical play. Capture Park (1922,4m-930lcc), "Border Lines," historical play.

Monday, silent night for: CKAC, CNRA, CNRC, CNRE, CNRM, CNRÖ, CNRR, CNRT, CNRY, CNRW, KHJ, KLDS, KPSN, KWSC, KYW, WBBM, WCGD, WEBH, WEBI, WENR, WGBF, WGBS, WGES, WGN, WHAS, WHT, WIBO, WIP, WIAZ, WJJD, WLIB, WLS, WMAQ, WMBB, WOAI, WOC, WOK, WORD, WQJ, WRC, WSAI.

Atlantic or Eastern Daylight Saving

Time Stations

CKNC, Teronto, Can. (356.9m.840kc), 9 p. m., Eveready orehestra; CKNC male quartet.

WBBR, New York, N. Y. (272.6m.1100kc). 8 p. m., George Twaroschk, violinist; Irene Kleinpeter. soprano; 8:20. Bible lecture; 8:40, soprano; 8:50, violinist.

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

strels; 9:30, Roy Tracy, tenor; 9:45. Chalfant Ststers; 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 Sherer, soprano; grand opera, "L'Elisir dl Amour"; Rolfe's Palais D'Or orchestra.

WHAR, Atlantic City, N. J. (27sm-1090ke), 8 p. m., Seaside hotel trio; 9, studio concert; 11, Follies Berger dance orchestra.

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

WIP, Philadelphia, Pa., (598.2m-590kc), 6:35 p. m., Benjamin Franklin concert orchestra; 7, Uncile Wip's bedtime stories.

WIZ, New York, N. Y. (454.3m-660kc), 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.

WLUI, New York, N. Y. (458.3m-1040kc), 9:15 p. m., songs; 9:45, musicale; 10:30, ensemble.

WMAK, Buffale, N. Y. (268.3m-1040kc), 6:15-7:15 p. m., dinner music, Philes Battery serenaders; 7:30-8:15, musicale; 9-10, musicale; 10-11, Beaver Products Co., Wica, New York, N. Y. (340.7m-880kc), 6:30 p. m.

Inc.

MMCA, 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 Denny's orchestra
11:30, Club Brighton orchestra; 12, McAlpin enter-

s. New York, N. Y. (526m-570kc), 6 p. m., piano WNYC, New York, N. T. (325m-370kt), o. p. in., p. selections; 7:35, songs.

WOO, Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., Bitz Carlton dance orchestra; 8, address, Rev. Forest Dager; 8:30, organ recital; 9, Sesquicentennial program; 10, WEAB; 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 WEAO, Columbus.

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

Eastern Standard or Central Daylight

Eastern Standard or Central Daylight
Saving Time Stations

WBAL, Baltimore, Md. (245.8m-1220kc), 6:30-7:30 p. m.,
WBAL dinner orchestra; 7:30-8. WBAL male quartet;
8-9. WBAL trip; 9-10. WBAL dance orchestra;
WGHB. Clearwater, Fla. (265.3m-1130kc), 8:30-10 p. m.,
Caroline Lee, "The Virginia Girl' and her Spanish;
guitar; Bob Houts, baritone; Eldon McMullen, planist;
Capitol theater orchestra.
WGHP, Detroit, Mich. (270-1m-1710kc), 6 p. m., dinner
concert, Hotel Tuller; 8:30. WGHP Harmony Four;
9-10, WGHP ensemble, T. Stanley Perry, tenor; 12-1
a. m. Gerald Marks' orchestra.
WGY, Schenectady, N. Y. (379.5m-790kc), 6:30-7:15
p. m., plano and soprano solos; 7:15-8, agricultural
program; 8-8:30, musical program.
WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m.,
Seaside hotel trio; 11, Follios Bergere dance orchestra.
WJJD, Mooscheart, Ill. (370.2m-810kc), 4:45-7 p. m.,
Howard L. Peterson, organist; Palmer House symphony
players; Compton's 'T see by the newspaper' man;
Palmer House Victorians.
WLS, Chicago, Ill. (344.6m-870kc), 6:30 p. m., Elsie
Mae Look, organist; 6:45-7, Maurie Sherman's College
Inn orchestra.
WLW, Cincinnatl, Ohlo (422.3m-710kc), 7 p. m., Hotel
Gibson; S, Charleston lessons; 9, Calumet Baking Powder and Rainbo Gardens hour; soldsts, Sibyl
Heek Linde, contralto; Dorothy Schroeter, accompanist,
WMAQ, Chicago, Ill. (447.5m-670kc), 6 p. m., organ
recital; 6:30. Jack Chapman's orchestra.
WREO, Lansing, Mich. (235.5m-1050kc), 6-7 p. m.,
Gold Standard ensemble.
WRYA, Richmond, Va. (256.3m-1170kc), 8:45 p. m.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble. (256.3m-1170ke). 8:45 p. m. Harmony Boys, Pat Binford, Bright Keck, plana and songs; 9, Virginia folk lore, Dr. Douglas Freeman; 9:10, Harmony Boys, '30, 'American Music Review' yesterday and today; 10:30, Golden Gate syncopators; 11:30, Carry Me Back to Old Virghny. 11:30, F. m., Hollenden hotel orchestra; 8, studio program; 11, Euclid Beach Park orchestra. 475.9m-630ke), 7:30 p. m., Goldman band concert; 9, Grand Opera hour; 10:03-10:30, Capitol theater organ.
WWI, 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-1040ko), 9 p. m., musical program, Hotel Clarke studio.
KFNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., con-KFNF, Shenandoah, Iowa (263m-1140kc), 7 p. m., concert; 8, poultry talk.

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

WCOA, Pensacola, Fia. (222m-1350kc), 7 p. m., conconcertification.

KMA, Shenandoah, Iowa (252m-1190kc), 9-11 p. m. KMA, Shenandardi, Corring, 2-piano recital.

KMOX, St. Louis, Mo. (280.2m-1070kc), 6:30 p. m., Jacquinot Jules, organist; 7, KMOX Radio orchestra;

Buster's Saxophone quintet; 8, KMOX Radio orchestra;

9, trio of violin, cello, organ; 9:30, Bamalogue; 10, operatta presentation.

KOIL, Ceuncil Bluffs, lowa (277.6m-1080kc), 7:30 p. m., Inner Circle candy night; 9, Barnyard twins; 11, Mrs. KOʻLL, Council Bluffs, towa (277.6m-1080kc), 7:30 p. m., Inner Circle candy night; 9, Barnyard twins; 11, Mrs, Fatrick Gill, soppano; 11, Hotsy-Totsy hour (PRC, Houston, Texas (298.9m-1010kc), 7:30 p. m., Eddie's syncopators; 8, Dr. Barle J. Shay, tenor; A. M. Martin, pianist; 8:15, dance music. (MVGR, Cedar Rapids, lowa (278m-1080kc), 9 p. m., musicale. (KWGR, Cedar Rapids, lowa (278m-1080kc), 8:30-8:45 p. m., Pelays Quintano, guitar and Canciones mesicanos; 9-9:30, Senorita Carlotta Villerel, soprano; E. C. Toothman, baritone; 12-1 a. m., novelty and jazz; E. C. Toothman, announcer; Beth Sewell and Florine Pelerce, accompanists. WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30 p. m., Gordon L. Mann, saxophone quintet; 9:30-11, Don Stegal and his band.

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-720kc), 6:15 p. m., St. Paul hotel concert orchestra; Mrs. Clara Olson, soprano; 8, WEAF; 9, Scandinavian en-semble; Victor Brunt, baritone; Paul Oberg, accom-panist, Viscuso, accordionist; venetian trio, string meiodies. WCCO, Minneapolis-St, Paul, Minn., (416.4m-720kc), 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-820kc), 6-7 p. m., Charlie Straight's Brunswick Recording orchestra; Ted Mcyn, organist; Earl Coleman's orchestra; Ted Mcyn, organist; Earl Coleman's orchestra; Ted Mcyn, organist; Earl Coleman's orchestra; Johnnie Campbell's orchestra.
WFAA, Dallas, Texas (475.9m-630kc), 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-320kc), 7-8 p. m., Sweeney Radio orchestra.
WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Philbreck and bis Younker tea-room orchestra; 8-9, Ruth Conway, soprano; Karl Kilinsky, violinist; Winifred Garrls, pianist.
WMC, Memphis, Tenn. (499.7m-600kc), 8:30 p. m., Pappalardo Brothers' orchestra.
WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., Sunshire Laundry orchestra.
WOAW, Omaha, Nobr., (526m-570kc), 6 p. m., marimba soloist, Hugo G. Heyn; Emil B. Hofmann, planist; 6:50, orchestra; 9, classical.
WOS, Jefferson City, Mo. (440.9m-680kc), 8 p. m., Daniel Boone Jones, Interstate old fiddling champion. WSM, Nashville, Tenn. (282.8m-1050kc), 7 p. m., Andres Jackson hotel trio; 8, Leon Frank's advanced piano pupilis; 10, Vito and his Radio seven.
WSUI, iowa City, Iowa (483.6m-620kc), 8 p. m., musical program.
Mountain Standard Time Stations

Mountain Standard Time Stations

Mountain Standard Time Stations

KFKF, Colorado Springs, Colo. (250m-1200kc), 9 p. m.,
Daisy Ann Thompson, mezzo-soprano; Anlta Osborne,
planist; Cecil Rodgers, tenor.

KOA, Denver, Colo. (322.4m-930kc), 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, Meiklejohn Brothers.

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

KGO, Dakland, Calif. (361.2m-830kc), 8 p. m., educatlonal program; Amphion trio.

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

KJR, Seattle, Wash. (384.4m-780kc), 8:30-10 p. m.,
Post Intelligencer studio program; 0-7-7:30 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. Weinsteln program with Alexandria hotel dance orchestra; 11-12 midnight, Ambassador hotel dance orchestra; 11-12 midnight, Ambassador hotel dance orchestra; 12-20ke), 8-10 p. m.,

andria note: 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 80 730 6:30 5:30 WHAS (399.5m-750kc), Georgia Minstrel Boys. 9:30 8:30 7:30 6:30 5:30 WHAS (399.5m-750kc), Carl Zoeller's Melodists. 10 8 7 6 WCCO (416.4m-720kc), Crinoline trio. WHB (365.6m-820kc), Mono Motor Oil Twins. 10:30 9:30 8:30 7:30 6:30 WFAA (475.9m-630kc), Dailey Hembree, tenor. WMC (499.7m-600kc), Tennessee Collegians. WOAI (394.5m-760kc), Gerbhardt Mexican players. 11 10 9 8 7 WQJ (447.5m-670kc), First National Violin quartet, 12 m. 11 9 8 KMOX (280.2m-1070kc), "Cherry Blosssoms."

Tuosday, silent night for: CFCA, CKNC, CNRC, CNRE, CNRM, CNRO, CNRT, CNRW, KFH, KFKX, KFUO, KOA, KOB, KTAB, KWWG, WAHG, WAMD, WBBR, WCAP, WGCP, WHAZ, WOR, WOS, WRVA, WSMB, WSUI, WTAM, WTIC.

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, Feter Ricei, bartione; 8:45, Higgins and Burke, songs; 9, Kuehnle's artists; 9:30, Robert Fraser, blind gospol singer; 10, recital; 10:15, Eddie Malle's entertainers; 10:30, Cathay Tea Garden orchestra.

House Fraser, Julius 2007. Cathay Tea Garden orchestra.

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

WEBJ, Now York, N. Y. (272.8m-1100kc), 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-760kc), 7:15 p. m., Sesqui talk; 8, WEAF; 10:30, Albin's Bossert orchestra; 11, Buffalodians dance orchestra.

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

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-1090kc), 8 p. m., Seaside hotel trio.

WHN, New York, N. Y. (361.2m-830kc), 6:30 p. m., Everglades orchestra; 7:30, Will Oakland's chateau, songs; 8, Treasureland Neighbors; 8:30, Prince Plotti, entertainer; 9:30, Loew's 83rd 8t. theater orchestra; 10, Universal trio; 11:30, Sophie Tucker's Playground orchestra; 12, Charm club orchestra.

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

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

WHL, Philadelphia, Pa. (394.5m-760kc), 7:30 p. m., El Patic dance orchestra; 3, One-thore Cruise, WRC, WGY; 10:45, George Olsen's Hotel Pennsylvania orchestra.

WWL, WYOrk, N. Y. (288.3m-1040kc), 9:15 p. m., Compinsky brothers; 9:30, Premier male quartet.

WMCA, New York, N. Y. (268.3m-1040kc), 7; MeAlpin entertainers; 9, Paul Whitteman's Picadily players; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel MeAlpin orchestra; 12, MeAlpin entertainers, N. Y. (526m-570kc), 6:35 p. m.,

rtainers. C, New York, N. Y. (526m-570ke), 6:35 p. m., oo selections; 7:15, songs. Philadelphia, Pa. (508.2m-590ke), 7:30 p. m., quicentennial program.
Newark, N. J. (406.2m-740kc), 6:15 p. m., Jacques bis Hotel Shelton ensemble; 7, Jacques Jacobs Hoshelton ensemble

Eastern Standard or Central Daylight Saving Time Stations

(YW, Chicago, III. (535.4m-560kc), 7 p. m., musle Chicago Evening American studio; 8, Congress 9-10:30, classical; 10:30-12 midnight, Carnival.

FARMERS' PROGRAMS INDEX

Tuesday, July 20

WBAL, Baltimore, Md. (245.8m-1220kc), 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.
WBBM, Chicago, III. (225.3m-1330kc), 5-8 p. m., Eddie Hansen, organist; 8-9:30, Fort Dearborn male choir, Alemite trio, Jack Crawford's Alemite High Pressure orchestra, "Hi and S!," Lee Sims, Kay Ronayne, contralto; 9:30-10, Moss Covered melodles; 10-11:30, Lee Sims, Smith & Ford, Alemite High Pressure Boys, Jack Crawford's Alemite High Pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra. Tom Brown's Sax Sextet, Eunice Hoefer, organist; II:30-12 midnight, Lee Sims, Howard Osburn's Vanity Fair cafe orchestra.
WGBD, Zlon, III. (344.6m-870kc), 9 p. m., Clarinet quartet; R. F. Reid, bartione; Mrs. McKerlle, Mrs. L. J. Reed, duets; Mrs. Lucillo Bird, soprano; Alice Clark, contralo; William C. Dunn, euphonium duets; Louise Burgess, reader.
WENR. Chicago. III. (265.3m-1130ko). 6-7 p. m.

Reed, duets; Mrs. Lucillo Bird, soprano; Alice Ciark, contralo; William C. Dunn, euphonium duets; Louise Burgess, reader.

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

WGES, Chicago, III. (249.9m-1200ke), 5-7 p. m., Clarence Theders, Jole Walsh, John McGralane, Al Bernstein, Peggy and Esther, W. Reminston Weleb, organ; 11-1 a. 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, III. (302.8m-990ke), 6:45-7 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WEAF; 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.

WHAR, Atlantic City, N. J. (275m-1909kc), 8 p. m., Seaside hotel trio.

WIAZ. Chicago, III. (329.5m-910kc), 9-12 midnight, Wil-

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio.
WJAZ, Chicago, III. (329.5m-910ke), 9-12 midnight, William Hayden, tenor; Francis Rosemary Scheib soprano; Henrietta Nolan, violinist; Chez Pictre Hawaiian quartet; The Quips that Pass in the Night.
WJJD, Mooseheart, III. (370.2m-810ke), 4:45-7 p. m., Howard L. Petersson, 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; Clarence Harper; 11:30-12:30 a. m., Settin' Up Hour.

Victorians; Clarence Harper; 11:30-12:30 a. m., Victorians; Clarence Harper; 11:30-12:30 a. m., VID Hour.

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

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

van Wyck's instrumontal quartet; 9:30, Regent Grand orchestra; 9:45, Melissa Dvorak, planist; 10:05, studio program.

WQJ, Chicago, III. (447.5m-670kc), 7-8 p. m., Rainbo Gardens orchestra; Leon Miller, violinist; Milton Shurman, accompanist; Lillian Schoessling, soprano; Clarence Claussen, barttone; 10-2 a. m., First National violin quartet; Bett Davis; O'Flanagan and O'Hara, Two Frenchmen; Nubs Allen.

WRC, Washington, D. C. (468.5m-640kc), 7 p. m., Willard hotel orchestra; 7:30, WJZ; 3, announced; 9, WJZ; 9:30, announced; 10:30, Meyer Davis'; Le Paradis band.

WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., dinner hour concert; 8:15, Reo Motor Car company band.

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

WSWS, Chicago, III. (275m-1090kc), 6 p. m., William Dyckman, bass; Terrace Gardens orchestra; Leola Aikman, songs; John Clark, baritone; Georgia Gray, violinist; 8, orchestra; Jean St. Ann, Christian A. Grimm, Watter Lewis, Eulalia Kober; Delores Diazanado; 10, quintet; Matthews Sisters; Georgia Gray, violinist; 12 midnight, Henri Therrien, Gus Edwards orchestra.

WYAM, Cleveland, Ohio (389.4m-770kc), 6 p. m., State theater veudeville; 7, WEAF; 10, studio program; 11, Euclid Beach Park orchestra.

WWJ, Detroit, Mich. (352.7m-850kc), 6 p. m., dinner concert; 7, WEAF; 10, studio program; 11, Euclid Beach Park orchestra.

Central Standard Time Stations

Central Standard Time Stations

KFNF, Shenandoah, Iowa (263m-I140kc), 7 p. m., James H. Lary.

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

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

KMA, Shonandoah. Iowa (252m-I190kc), 9-11 p. m., May's Mandolin musicians.

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

KO1L, Council Bulfs, Iowa (277.6m-1080kc), 6:30 p. m., John A. Gentleman music hour; 7:30, Lyric serenaders; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010kc), 7:30 p. m., John A. Gentleman music hour; 7:30, Lyric serenaders; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010kc), 7:30 p. m., John A. Gentleman music hour; 7:30, Lyric serenaders; 11, Hotsy-Totsy hour.

KPRC, Mussengale, baritone; Florence Massengale, planist; 9:30-11, H. D. Guelick and entertainers.

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

WCCO. Minneapolis-St. Paul, Minn. (416.4m-720kc), 6:30 p. m., WEAF; 8, Crinoline tric; Ramona Gerhard, violinist; Sylvester Cargill, marimba soloist.

WDAF, Kansas Gity, Mo. (365.6m-820kc), 6-7 p. m., Billy Adair's orchestra; 11:45-1 a. m., Charlie Straight's orchestra; Billy Adair's orchestra; Harry Frank, organist.

WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Honey Boys orchestra; Barl Coleman's orchestra; Harry Frank, organist.

WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Honey Boys orchestra; Billy Adair's orchestra; Harry Frank, organist.

WFAA, Dallas, Texas (636.6m-820kc), 7:30-9 p. m., Carl Zoeller's melodists.

WBAF, Kansas Gity, Mo. (365.6m-820kc), 7:30-9 p. m., Carl Zoeller's melodists.

WBAF, Kansas Gity, Mo. (365.6m-820kc), 7:30-9 p. m., Cebarti Mexican players.

WGCD Assenser Louisville

Mountain Standard Time Stations

KFXF, Colorado Springs, Colo. (250m-1200ke), 7:30 p. m., R. Gratz Cox free voice lesson: 8, Paul Antle's orchestra; 10-11:30, Bertram T. Wheatley, concert or-

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

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642kc), 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-1190kc), 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 Machino company; 10-11, Warner Brothers frolic.

KGO, Oakland, Calif. (361.2m-630kc), 8-9 p. m., Eveready program, Valencia orchestra; Harrison L. Coles, tenor; G. Franklyn Roberts, bartione; 9-10, Pilgrim's hour, Don Lee Cadillac company.

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

planist.
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, Tower studio musical program; 10-11, Southern Serenaders' dance orchestra

orchestra.

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

(IX, Hollywood, Calif. (336.9m-890kc), 7-7:45 p. m., program, Geo. E. Read, Inc.; 8-9, Builder's Finance company program; 9-10, Western Auto Supply company program; 19-12, movie night, Ambassador, Ray West's Cocoanut 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.

Wednesday, July 21

Headliners Today

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

Farmer Dinner Concerts

Daily Except Sunday CENTRAL TIME

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

Monday Atlantic Eastern Central Mountain Pacific

2:30 p. m. 1:36 12:30 11:30 10:30 KMA (241.8m-1240ke), Farm talk, Agricultural

WMAQ (447.5m-670kc), Prairie Farmer farm talks.

8:15 7:15 6:15 5:15 4:15 WGY (379.5m-790kc), Agricultural program.

9 8 7 6 5 WOS (440.9m-680kc), Livestock questions and an-

9:30 8:30 7:30 6:30 5:30 WMC (499.7m-600kc), Farm talk. WOI (270m-1110kc), Horticultural Short Course lecture.

10:30 9:30 8:30 7:30 6:30 WFAA (475.9m-630kc), Sears-Roebuck program. (2:05a.m. 11:05 10:05 9:05 8:05 KGO (361.2m-830kc), Agricultural Outlook.

Tuesday Atlantic Eastern Central Mountain Pacific 12 n. 11 10 9 KMMJ (228,9m-1310kc), Pouitry talks.

2:30 1:30 12:30 11:30 10:30 KMA (241.8m-1240kc), Agricultural aid. WMAQ (447.5m-670kc), Prairie Farmer farm talks.

WMAQ (447.5m-6708c), Frairie Farmer tain tains.
2 445 1:45 12:45 11:45 00:45
WOI (270m-1110kc), "Animal Husbandry."
9:33 8:33 7:33 6:33
KYW (535.4m-560kc), American Farm Bureau
Federation.
10:36 9:30 8:30 7:30 6:30
KOA (322.4m-930kc), Farm question box.

12 n. 11 10 9 KMMJ (228.9m-1310kc), Poultry talks.

8:45 7:45 6:45 5:45 WSM (282.8m-1060kc), Poultry talks.

9:45 8:45 7:45 6:45 WCCO (416.4m-720kc), Farm lecture, KFNF (263m-1140kc), Poultry talk.

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

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

WJZ, New York, N. Y. (454.3m-860kc), 7:05 p. m., Hotel Madison concert orchestra; 8, Imperial Imps; 8:30, Stadium Philbarmonic concert, WRC; 10:30, Hotel Astor Roof orchestra.

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

WLWL, New York, N. Y. (288.3m-1040kc), 8:30 p. m., Hearthsido Harmonizers of Lucerne; 9, to be announced; 9:45, ensemble; 10:15, sonrs.

Hearthsido Harmonizers of Lucerne; 9, to be announced; 9:45, ensemble; 10:15, songs.

WMAK, Buffalo, N. Y. (265.3m-1130kc), 6:30-7:15 p. m.,
dinner music. Hotel Lafayette orchestra; 7:30-8:16,
musical program, Eastman theater orchestra.

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

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

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-740kc), 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

YW. Chicage, III. (535.4m-560ke), 6:30 p. m., Joska DeBabary and his orchestra; Bittle-Benson orchestra; 7, American hour; 9-10:30, classical concert, Commonwealth Edison company; 10:30-12 midnight, Congressearnival.

weath Edison company, 10.30-12 intuning, Congress earnival.

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

WENR, Chicago, III. (265.3m-I130kc), 6-7 p. m., Rauland lyric trio; 8-10. All-American Pioneers; 12-2 a. m., All-American Pioneers.

WGES, Chicago, III. (249.9m-1200kc), 5-7 p. m., teamusic; 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-1240kc), 9 p. m., Willard Battery hour, "16 fingered Paul," Moke Marrin, Helen Neuman, Jim Forshey, Ruth Glaser, Pearl Knudson, Sid Goldman, Ramona Gardens orchestra, Minnie DuBey Johnson, Marian Cusser, Van Wyck's Instrumental quartet, Herman "Billi" Nyhoff; 10:05, Paul Estabrook, studio artists.

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

WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon sorenaders.

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

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

WSWS, Chicago, Ill. (275m-1090kc), 8 p. m., Terrace Gardens orchestra; John A. McFarland, Peter Grosso, John Clark, baritone; Agnes Q. Carlsen, contralto; 10, Terrace Gardens quintet; Paul Davis, Dave Darcie, Georgia Gray, Jack Goodwin, Kenneth Clark, Hawaiian guitarrist; 12 midnight, witching hour, Henri Thierrien, tenor; Gus Edwards' orchestra.

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

WTIC, Hartford, Conn. (475.9m-680kc), 7:30 p. m., Capitol theater orchestra: 8. Trayelers Jongleurs and

gram.
WTIG. Hartferd, Conn. (475.9m-630kc), 7:30 p. m. Capitol theater orchestra; 8, Travelers Jongleurs and 'Unknown Troubadour'; 9, Carroll's Palais Royal dance

orchestra.

WWJ, Oetroit, Mich. (352.7m-850kc), 6 p. m., dinnor concert; 7, WEAF; 7:30, Detroit News orchestra; 8, dance program; 9, Detroit News orchestra.

Central Standard Time Stations

Central Standard Time Stations
CNRW, Winnipeg, Canada (384.4m-780ke), 9:10 p. m.,
Fort Garry hotel trio; John Garrick, baritone; Kathleen
Daly, soprano; Frank Redich, cellist.
KFNF, Shenandeah, Iowa (263m-1140ke), 7 p. m., concert, Henry Field Seed company
KFRU, Bristow, Okta, (374.8m-800ke), 8-9 p. m., Radio
trio, Mascho, Cunningham, Mascho, 6-9 p. m., Radio
trio, Mascho, Cunningham, Mascho, 8-9 p. m., musical de luxe program.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m.,
Jacquinot Jules, organist; 7-8:30, KMOX Radio orchestra; 8:30-9:30, KMOX Radio orchestra; 8:30-9:30, KMOX Radio orchestra; 9:30-11:30,
"Ghost of Gerry Bundler," KMOX staff; trumpet flourish.

ish.

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

KWCR, Cedar Rapids, lowa (278m-1080kc), 9 p. m.,

KWCR. Cedar Rapids, 10wa (2/0m-100000), recital. WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 6 p. m., WEAR?, 7. WEAR? 8, Faith Lutheran church; 9, Belison banjo quartet; Gertrude Armstrong, soprano. WCOA, Pensacola, Fla. (222m-1350kc), 7 p. m., Johnnie Klumpker, popular dittles; Mrs. Pauline Whitwell, piano escapade; Max J. Heinberg, violinist; Mrs. W. R. Heife, vocalist; R. C. Dinsmore, cellist; instrumental trio.

Helfe, vocalist; R. C. Dinsmore, cellist; instrumental trio.

WDAF, Kansas City, Mo. (365.6m-820kc), 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-750kc), 7:30-9 p. m., concert, auspices Mrs. Fred Wells.

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

WHO, Des Moines, lowa (526m-570kc), 6-7 p. m., Bankers Life Little symphony orchestra; Stewart Watson, barttone; 7-8, Philbreck and his Younker tearom orchestra; 8-9, Kate Miller, whistler; Maude Hughes, accompanist; Ray Harrison, song soloist; Jean Hines, pianist; 9-11, dance program.

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

WOC, Davenport, lowa (483.6m-620kc), 6-6:30 p. m., WEAF; 7-7:30, WEAF; 9:30-10:30, Erwin Swindell, organist.

WEAF; 7-7:30, WEAF; 9:30-10:30, Erwin swinger, organist.

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

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

Mountain Standard Time Stations KCA, Denver, Celo. (322.4m-930kc), 6:30 p. m., Brown Palace string orchestra; 8, Scheuerman's Colorado or-chestra; 8:15, Rocky Mountain News, Denver Times.

chestra; 8:15, Rocky Mountain News, Denver Times.

Pacific Standard Time Stations

KFI, Los Angeles, Cailf. (467m-642kc), 7-7:30 p. m., popular program; 8-0, program, California Petroleum Corp.; 9-10, popular program; 10-11, Charles Beauchamp, tenor and others.

KFWB, Hellywood, Cailf. (252m-1190kc), 7:30-8 p. m., program, Corduroy Tire Stores, Inc.; 8-9, program, A. V. Shotwell Corp.; 9-10, varied program; 10-11, Warner Brothers frolic.

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

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

concert; 8-9, Western Auto Supply company; 9-10, musical entertainment.

(Hi), Los Angeles, Calif. (405.2m-740kc), 6:80-7:30 p. m., Uncle John and the children; 7:40, talk on astronomy; 8-10, Times presentation.

KJR, Seattle, Wash. (389.4m-780kc), 7:30-8:30 p. m., Arcweld Mfg. Co., studio program; 10-11, Olympic Calpet Ref. company, studio program; 10-11, Olympic Calpet (NX, Hollywood, Calif. (336.9m-890kc), 7-8 p. m., studio program; 8-9, Stewart-Warner dealers program; 9-10, program; 8-9, Stewart-Warner dealers program; 9-10, program, Motor Transit stages; 10-11, Edgewater club; 11-12, Ambassador hotel dance orchestra.

Thursday, July 22

Headliners Today

Eastern Central Mountain 8 7 6 Atlantic Pacific Atlantic Eastern Contrai mountain Parint 9 p.m. 8 7 6 5 5 5 CNRM (410,7m-730kc), Markowski trio, 9 8 7 6 6 5 WHB (385.6m-820kc), Mono Motor Oll Twins. 10:30 9:30 8:30 7:30 6:30 WFAA (475.9m-630kc), Wednesday Morning Choral

\text{WFAA} (475.9m.-630kc), Wednesday Morning Choral club.
\text{WRC (468.5m.-640kc)}, WRC players.
\text{11} 10 9 8 7
\text{WJJD (370.2m.-810kc)}, Palmer House Victorians.
\text{WSWS (275.1m.-1090kc)}, "On the Road to Mandalay," John Clark production.
\text{11:15} 10.15 9:15 8:15 7:15
\text{WQJ (447.5m.-670kc)}, Two Frenchmen.
\text{11:20} 10.20 9.20 8:20 7:20
\text{KVWG (277.6m.-1080kc)}, George Desha, ukulele sololst, 11 10 9 8

SUCCOSE, 12 m. 10 9 8 8 WGHP (270.1m-1110kc), Marvelle Payette, soprano. 1 a.m. 12 m. 11 10 9 KFXF (250m-1200kc), Irish Melody Boys,

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

Atlantic or Eastern Daylight Saving Time Stations

CKNC, Toronto, Can. (358.9m.840kc), 8 p. m., Charles E. Bodley and his dance orchestra; Elsle Addison, contralto; Arthur Bailey, tenor.
CNRM, Montreal, Canada (410.7m-730kc), 9 p. m.,

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

WBBR, New York, N. Y. (272.6m-1100kc), 8 p. m., Watchtower instrumental trio; L Marlon Brown, soprano; Bible lecture.

WGAU, Philadelphia, Pa. (277.6m-1080kc), 6:30 p. m., Cathay Tea Garden orchestra; 7:30, Snellenburg instrumental trio; 8, Sadler's Plantation Serenaders; 8:30, Clifton's Anglers; 9, Barry O'Moore, tenor; 9:43, Professor Doolittle; 10, recital; 10:15, Frank Worthington, bartione; 10:30, Eddic Campbell's orchestra; 11, Club Cadix revue.

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

Wednesday

Atlantic Eastern Central Mountain Pacific

9 8 7 6 5 WOS (440.9m-680ko), Evening market hour, poul-try questions and answers.

Thursday Atlantic Eastern Central Mountain Pacific 2:15 p. m. 1:15 12:15 11:15 WOI (270m-1110ke), Farm crops. 2:30 1:30 12:30 11:30 10:30 KMA (241.8m-1240kc), Agricultural aid. WMAQ (447.5m-640kc), Prairie Farmer farm talks. 9:30 8:30 7:30 WOI (270m-1110kc), Talk. 6:30 9:33 8:33 7:33 6:33 5:33 KYW (595.4m-560ke), American Farm bureau 5:33 10:30 9:30 8:30 7:30 KOA (322.4m-930kc), Farm question box. 6:30

Fričay

Atlantic Eastern Central Mountain Pacific 2:30 p. m. 1:30 12:30 11:30 10:30 KMA (241.8m-1240ke), Agricultural ald, WMAQ (447.5m-670kc), Prairie Farmer farm talks. 2:45 1:45 12:45 11:45 10:45 WOI (270m-1110ke), Agricultural Economics. 9 8 7 6 5 WOS (440.9m-680kc), Evening Market hour, Dairy questions and answers.

9:30 8:30 7:30 6:30 WOC (483.6m-620kc), Question box.

Saturday
Atlantic Eastern Central Mountain Pacific

2 p. m. 1 12 n. 11 f0 KPRC (296.9m-1010kc), Farmers' educational and musical program. 2:15 1:15 12:15 11:15 KSO (241.8m-1240kc), Farm talk. 2.330 1.30 12.30 11.30 10.30 KMA (241.8m-1240kc), Agricultural aid, 10.45 WOI (270.m-1110ko), Soils, questions and answers. 9 8 7 6 KDKA (309.1m-970kc), Farm program.

9 8 7 6 WHB (365.6m-820kc), Mono Motor Oll Twins. WTIC (475.9m-630kc), Unknown Troubadour. 10 9 8 7 6 KPRC (296.9m-1010ke), Richard Shannon, xylo-

phonist.
WOS (440.9m-680kc), Marimba solos, Gondoliers.
II 10 9 8 7
WSAI (325.9m-920kc), Congress playing card string quartet.
11:30 10:30 9:30 8:30 7:30

KMOX (280.2m-1070kc), "Ghost of Gerry Bundler,"

drama.
1 a. m. 12 m.
11 10 9
KGO (361.2m-830ke), International convention,
Lions' clubs.

Wednesday, silent night for: CKCA, CKNC, CNRA CNRC, CWRE, CNRM, CNRR, CNRT, CNRV, KFXF KGO, KLDS, KMMJ, KOIL, KPSN, KTAB, KWWG WABQ, WBAL, WBAP, WBBR, WCBO, WFAA WGBF, WGBS, WGCP, WHAR, WHAZ, WIP, WIAZ WMC, WOAI, WOAW, WPG, WRC, WRR, WSUI.

Atlantic or Eastern Daylight Saving Time Stations

WCAU, Philadelphia, Pa. (277.6m-1080kc), 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 plano; 9:45, Senator Hassenpfeffer; 9:50, Maurice Patton, tenor; 10:30, Zoehrus and Hirscher, songs; 10:45, Frank Cook, songs; 11, Artie Bittong's Cheer-ups.

Bittong'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; "La Fielle, du Tombour Major," WEAF Light Opera company; Pelham Heath Inn orchestra.

WEBJ, New York, N. Y. (272.6m-1100ke), 8 p. m., Raymond orchestra; 8:45, John Van Aspc, tenor; 9, Jeanne A'Dair, singing composer; 9:15, Three Collegians; 9:30, Kabatnicks dance orchestra.

WGBS, New York, N. Y. (315.6m-950ke), 6:30 p. m., Fess Williams Savoy orchestra.

WHN, New York, N. Y. (361.2m-830ke), 7:30 p. m., Loew's Lexington theater organ recital; 9, Loew's New York theater orchestra; 10, Roseland dance orchestra; 10:30, Palisades Amusement park orchestra; 11:30, Eddie Edward's Soutberners.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m.,

Paradiso ballroom orchestra; Peggy O'Neill, Joe Mornison; 11-1 a. m., frolic.

WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10 p. m.. Mr. and Mrs. Charlie A. Waller, old-time songs and duets; Mrs. Lucian Lucas, concert pianist; Capitol theater orchestra.

WGHP, Detroit, Mich. (270.1m-1110kc), 6 p. m., dinner concort, Hotel Tuller; 8, children's half hour; 8:30, male quartet; 9-10, WGHP ensemble; 12-1 a. m., Gerald Marks' orchestra.

WGN, Chicago, Hl. (302.8m-990kc), 6:35-7 p. m., Drake eoneert ensemble; Blackstone string quintet; 3:30-9, musicale; 9-10, musicale; 10-10:10. Sam 'n' Henry, 10:30-12:30 a. m., Pepper party.

WGV, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., WHAMI-WGY.

WJAZ, Chicago, Ill. (329.5m-910kc), 9-12 midnight, artist pupils of Alexander Nakutin, Edwin J. Gemmer studios.

WILD, Mooseheart, Ill. (320.2m-810kc), 4:45-7 p. m.

WGY, Scheneciady, N. Y. (379.5m-790kc), 6:30 p. m., WHAM-WGY.
WHAM-WGY.
WHAM-WGY.
WIAZ Chicago, III. (329.5m-910kc), 9-12 midnight, artist pupils of Alexander Nakutin, Edwin J. Gemmer studios.
WIJO, Mooseheart, III. (370.2m-810kc), 4:45-7 p. m., Howard L. Peterson, orgenist; Pelmer House symphony players; Compton's "I see by the newspaper" man; Palmer House Victorians; 7-9, music by children of 'all ages; solos, bands, tc. 9-11, Palmer House Victorians; Isabel Defaut, R. C. 9-11, Palmer Houses, Victorians; Isabel Defaut, R. C. 11, 20-12, Martin House, J. 11-20-12, Martin House, J. 11-20-12,

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27 3 3 3 3

Thursday, July 22

quot Club Eskimos; Silvertown Cord orchestra; Buffalodians.

dians.

WFI, Philadelphia, Pa. (394.5m-760ke), 7:15 p. m.,
Keystone Auto club feature; 8:15, WEAF,
WGBS, New York, N. Y. (315.6m-950ke), 6:30 p. m.,
S.S. Acquitanla orchestra; 6:45, Royal Arcadia orchestra; 8:30, Oliver Sayler "Footlight and Lamplight";
9, Old-time minstrels; 10:20, Royal Arcadian orchestra;
WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m.,
Seaside hotel trio; 9, studio concert; 11, Follies Bergere dance orchestra;

WHAR, Atlantic City, N. J. (275m-1090ke), 8 p. m., Seaside hotel trio; 9, studio concert; 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; 11:30, Everglades orchestra; 12, Sophite Tucker's Playground.
WIP, Philadelphia, Pa. (508.2m-590kc), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stortes; 8, Hotel Ambassador orchestra; 8:30, Million Dollar Pier orchestra; 3, Hotel Ambassador concert orchestra; 10:30, Johnny Hamp's Kentuckians; 11, Hotel Sheiburne dance orchestra; 11:30, Silver Silpper club dance orchestra;

Millon 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.

WIZ, New York, N. Y. (454,3m-660ko), 7:05 p. m. Hotel Madison dinner concert orchestra; 7:40, Judge, Jr.; First National presentation, "The Amateur Gentleman," WRC: 8:30, WRC; 9:30, Royal Typewriter Salon orchestra, WGY, WRC, WCAD; 10:30, Fireside Boys; 11, 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. Ernde Golden and his Hotel McAlpin orchestra; 12. Broadway night, WNYC, New York, N. Y. (526m-570kc), 6:10 p. m., plano selections.

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

WOR, Newark, N. J. (405.2m-740kc), 6:45 p. m., Hotel Bretton hall orchestra.

Eastern Standard or Central Daylight Saving Time Stations

WOR, Newark, N. J. (405.2m.740kc), 6:45 p. m., Hotel Bretton hall orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KYW. Chicago, III. (353.4m.560kc), 6:30 p. m., dinner concert. Congress hotel; 8-9, "Twenty Minutes of Good Reading", 8-10:30, classical program; 10:30-12 midnight, Congress Carnival program; 10:30-12 midnight, Congress Carnival (245.8m.1220kc), 6:30-7:30 p. m., dinner orchestra; 7:30-8, mixed quartet; 8-9, m., wisting, other artists, 5-6. Eddie Hansen, organist; 8-9:30, Lee Sims, Kay Ronayne, contraito; "Hi and Si." Eurice Hoofer, organist, Alemite string trio, Jack Crawford's Alemite high presure orchestra, 9:30-10:15, Moss Covered melodies; 10:15-10:30, Izaak Walton hour; 10:30-11:36. 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 Alemite high pressure orchestra.

WCBD, Zion, III. (344.6m-870kc), 9, p. m., mixed quartet, Zion orchestra; Mrs. J. D. Tbomas, soprano; Mrs. P. M. LaRose, contraito; Mark Whiteside, baritone; duets; flute duets; Mute duets.

WERR, Chicago, III. (265.3m-1130kc), 6-7 p. m., Rauland lyric trio; 8-10. All-American Pioneers.

WGES, Chicago, III. (229.9m-1200kc), 8-9 p. m., Krueger and Dillon; Frank Sylvano, Louis Panice; Guyon's Paradies Baltroom orchestra; Al Bernstein; Joe Morrison; 11-12 midnight, frolic; 12-1 a. m., Panico panic. WG HB, Clearwater, Fla. (255.3m-1130kc), 6-7 p. m., Gapitol theater orchestra.

WGRP, Detroit, Mich. (270.1m-1110kc), 6 p. m., dinner concert, Hotel Tullier; 10-11, WGHP Frolickers; 11-12 midnight, Sylvark danee band; Marvelle Payette, soprano; 12-1 a. m., Gerald Marks' orchestra.

WGR, Chicago, III. (302.8m-990kc), 6:45-7 p. m., request program; 8-9, WEER; 9-10, WCAF; 10-10-10. Sm ''. Henry; 10:10-10:20, Music Box;; 10:20-10:30, 11:30,

WHAR, Atlantic City, N. J. (275m-1090ke), 7:30 p.m., announced; 8, Seaside hotel tric; 9, studio concert; 11, Follies Bergere dance orchestra; Jimmy Carr, Doctor of Melody.
WIAZ. Chicage, III. (329.5m-910ke), 9-12 midnight, classical program, artists of reputation.
WIJD, Mooseheart, III. (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; T-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 Candie.
W11B, Chicago, III. (302.8m-990ko), 7-7:05 p. m., Million sing; 7:05-7:15, Old-Fashloned Almanack; 7:15-8, Drake concert ensemble; Blackstone string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string quintet; 11-11:20. Correll and Gosden; 11:20-1 a. m., Liberty string complex properties of the string p

er's Drage notel Game of Classic, 700 chestra.

WLS, Chicago, III. (344.6m-870kc), 6:30 p. m., Elsie
Mae Look, organist; 6:45, Maurle 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 College

Rose Sherman, violinist; Marie Ludwig, narpist; 1-30.
Al Melgard, organist; 8:10, Maurie Sherman's College
Inn orchestra.
W.W. Cincinnati, Ohio (422.3m-710ke), 6:15 p. m., Norrlne Gibbons, Priscilla Holbrook; 7, Hotel Gibsen orchestra; 8, Erwin's Miamjans; 9, Caroli singers; Chnclinnati zither players; 10, Henry Thels' Castle Fanners; 10:15, Al Kirschner, Pep Golden; 10:40, Irene
Downing and Toumy Reynolds; 11. Tory Lazare,
Imperial serenaders; 11:15, The Latonia McOre Bries;
11:30, Imperial serenders; 12:15, Croley SKY, Chieago, Ill.
(147.3m-170kc) pn m., Chicago,
theater organ recital; 6:30, Jack hapman's orchestra;
8:30, Whitney trio; 9, Jennie F. W. Johnson, contralio; 9:30, orchestra;
WMBB, Chicago, Ill.
(447.3m-1200kc), 7-8 p. m., Trianen ensemble, Blizabeth Reobils, cellist; Margaret Conrad, violinist; Spanish music; 9-11, Trianon orchestra,
Drampe, Woodlawn theater orchestra, Armin F.
Bund, Trianon ensemble; Joe Parson, baritone; BoSmith, veeal and ukulele specialtles; Jack Brewton,
musical saw; John Stamford, Bob Bennett in popular
wood Chicago, Ill. (217.3m-1380kc), 6-7 p. m., Tip-

musical saw; John Stamford, Bob Bennett in popular program.

WOK, Chicago, III. (217.3m-1380kc), 6-7 p. m., Tippropram string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra; Midway Garden orchestra; Pershing Palace erchestra; Katz and his Kittens' orchestra; Capitol theater program.

WJ. Chicago, III. (447.5m-670kc), 7-8 p. m., Rainho Gardens orchestra; Sheppard Levine, tenor; Lillian Schoessling, soprano; 10-2 a. m., Jerry Sultivan; Harry Geise; Lew Butler; Bert Davis.

WRC, Washington, D. C. (498.5m-640kc), 7 p. m., Raddo movie presentation, WJZ; 7:30, U.S. Marine band, WJZ, WGY; 9, WJZ; 9:30, WRC players; 10:30, WJZ.

WHEO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., Signation.

Lansing, Mich. (285.5m-1050kc), 6-7 p. m., standard ensemble; Speed-Wagon serenaders; 8:15, Gold Standard ensemble; Speed-Wagon serenaders; 8:19, WREO concert orchestra. WRVA, Richmond, Va. (256.3m-1170ke), 9 p. m., "Ye old tyme singers and familiar songs"; 10, police string band; 11, Carry Me Back to Old Virginny, WSAI, Cincinnati, Ohio (325.9m-920kc), 7:30 p. m., WSAI, Cincinnati, Ohio (325.9m-920kc), 7:30 p. m.,

WEAF.
(SWS, Chicago, Ill. (275m-1090kc), 7 p. m., Terrace
Gardens orchestra; Ilona Kinz, Hungarian singer;
Eulalia Kober, planist; Walter Lewis, baritone; Peter
Grosso, tenor; 10, "On the Road to Mandalay," Terrace Gardens quintet; 11, frolic; 12 midnight, Witching hour.

rate Gatters, and the control of the

concert; 7, WEAF.

Central Standard Time Stations

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

KEKX, Hastings, Nebr. (288.3m-1040ke), 9 p. m., mulinist. KFKX, Hastings, Nebr. (288.3m-1040kc), 9 p. m., musical program, Lincoln, Nebr. KFNF, Shenandoah, Iowa (263m-1140kc), 7 p. m., open.

KFRU, Bristow, Okla. (374.8m-800kc), 6-9 p. m.. surrise program.

KLDS, Independence, Mo. (440.9m-680kc), 8 p. m.,

KLDS male quartet.

KOIL, Council Bluffs, lowa (277.6m-1080kc), 6:03 p. m.,

KMA program; 7, G. H. Nelson Paint company, program; 8, Mrs. G. R. Harrison, director; 11, Hotsy-

Totsy hour.

KPRC, Houston, Texas (296.9m-1010kc), 7:30 p. m.,
dance music; 9, Edna Adams, "the sweetheart of the
air"; Mrs. E. E. Sawyer, classical planist.

KWCR, Cedar Rapids, Iowa (278m-1080kc), 12 midnight,

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

KWWG, Brownsville, Texas (277.6m-1080ke), 8:30-0 p. m., Mrs. Reis, contraito; T. C. Barber, bass; 9-9:20, Beth Sewell, pianist; Mrs. F. Smidt, contraito; 9:20-9:40, George Desha, ukulele and Hawaiian songs; 12-1 a. m., novelty and jazz; E. C. Toothman, announcer, Beth Sewell, Florine Pierce, accompanists, WBAP, Fort Worth, Texas (475.5m-630kc), 7:30-8:30 p. m., dance program, Texas hotel; 9:30-11, program, Sam S. Losh; 11-12 midnight, Mystery duo.

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

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m.

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

Friday, July 23

Headliners Today Atlantic Eastern Central Mountain Pacific

8:15 p. m. 7:15 6:15 5:15 4:15 WGY (379.5m-790kc), "Stung," comedy, WGY playwric (475.9m-630kc), Fiddle and Bee. 9 8 7 6 WHB (365.6m-820kc), Mono Motor Oil Twins. 9:30 8:30 7:30 6:30 5:30 WCOA (222m-1350kc), Pensacola Philharmonio orchestra.
WHAS (399.8m-750kc), "Pirates of Penzance," ensemble.
WMAK (265.8m-1180kc), Armbruster trio. 9:35 8:35 7:35 6:35 WRVA (256.3m-1170ke), Stutz string band.



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 KFI, Los Angeles.

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

Jimmy Joy's orchestra; 8:30-9:30, vrequesta, choral club, WHAS, Louisville, Ky (399.8m-750kc), 7:30-9 p. m., concert, auspices Central State hospital orchestra, Margaret Leist, director.

WHB, Kansas City, Mo. (365.6m-820kc), 7-7:30 p. m., dinner hour organ cencert; 8-9:30, Mono Motor Oil

Twins. WHO, Des Moines, lowa (526m-570ke), 7:30-8 p. m. Philbreck and his Yoanker tea-room orchestra; 8-9

WHO, Des Moines, Iowa (32bm-570ke), 7:30-8 p. m., Philbreck and his Yoanker ten-room orchestra; 8-9, Bankers Life trio.
WMC, Memphis, Tenn. (499.7m-600ke), 8:30 p. m., George Luttrell.
WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., Mistletoe Melody Maids,
WOAW, Omaha, Nobr. (526m-570ke), 6 p. m., Elks organ; 6:50, orchestra; 9, Sunshine program.
WOC, Davenport, Iowa (483.6m-620kc), 6-6:30 p. m., WEAF; 9-9:30, Moline Plowboys.

Mountain Standard Time Stations VIOUNCAIN STANDARD 11ME STATIONS
CNRC, Calgary, Canada (435.8m.688kc), 9 p. m. Little
symphony orchestra; Gladys Webb Foster, violinist.
KFXF, Colorado Springs, Colo. (250m.1200kc), 9 p. m.
Irish Melody Boys with Brnest Magee, entertainer.
KOA. Denver. Colo. (322.4m.930kc), 6:30 p. m., Brown
Palaee string orchestra.

Palace string orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Callí. (467m-642ke), 7-8 p. m., Duncan Sisters from Topsy and Evz; 8-9, Robert Hurd, tenor and others; 9-10, semi-classical hour; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist. KFWB, Hollywood, Calif. (252m-1190ke), 7-7:30 p. m., program, O'Neal and Son; 8-9, program, McGavin Brothers bakeries; 9-10, studio program; 10-11, Warner Brothers frolic.

KGO, Oskland, Calif. (361.2m-830kc), 8-9 p. m., vacation program. Duke Kanoku's Royal Hawaitans; Fishin', Jim Pike; WOW malo trio; 9-12 midnight, dauee muste. Paradise Gardens.

KGW, Portland, Ore. (491.5m-610kc). 6-7 p. m. dinner

sie, Paradise Gardens. KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 7:45-8, lecture; 9-10, vaudeville; 10-12, Spaneonest; 7:45-8, lecture; b-10, vauce-11, 15 baltrom.

(HJ), Los Angeles, Calif. (405.2m-740kc), 6:30-7:30 p. m., Uncle John and the children; 7:40, talk on health; 8-10. Zeellner string quartet; Harriett Andrews. soprano.

drews, soprano. IR, Seattle, Wash. (384.4m-780kc), 8:30-10 p. m. Puget Sound Savings & Loan Ass'n studio program 10-10:30, Benjamin Franklin Electric company, musica-program: 10:30-12 midnight, "Keep Joy Radiating Or-

der of Bats."

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.

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

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

10:30 9:30 8:30 7:30 6
WOC (488.6m-620kc), Juvenile musical program
12 m. 11
WSM (282.8m-1060kc), Barn dance.

For stations silent tonight refer to first Friday's list

Atlantic or Eastern Daylight Saving

Atlantic or Lastern Daylight Saving
Time Stations
CNRA, Moncton, Canada (322.4m-930kc), 9 p. m., CNRA
orchestra; Mrs. George B. Gay. soprano.
WCAU. Philadelphia, Pa. (277.6m-1080ko), 6:45 p. m.,
Hotel Pennsylvania orchestra; 7:30, instrumental trio;
8, Jackson's Wbippets; 8:30, The Singing Groundhog;
8:45, Dwight Strickland, "poetician"; 9, Regtua
Crooners; 9:15, Nasco Jolly Four; 9:45, Jack and Jill,
songs; 10, rectial; 10:15, songs; 10:30, Myers' Musical
Architects.

songs; 10, recltal; 10:15, songs; 10:30, Myers' Musical Architects.

WEAF, New York, N. Y. (491.5m-810k6), 4-12 midnight, tea dance music; dinner music; Artstocrats, Dickens' Corner; Wandering Minstrels; La France orchestra; Whittell Anglo-Persians; May Breen, banjoists; Peter De Rose, planist; Jack Albin and his Hotel Bossert Marine Roof orchestra.

WEBJ, New York, 122,6m-1100ke), 7 p. m., Blemhelm theater ensemble; 7:30, Luna's Kniekerbocker grill orchestra; 8, Billy Day, Whispering seronader; 8:15, William McCarthy, song; 8:30, Luna's Marine band.

band. WFI, Philadelphia, Pa. (394.5m-760ko), 3 p. m., recital,

band.
WFI, Philadeiphia, Pa. (394.5m-760ko), 3 p. m., recital, studio Sesquicentennial exposition.
WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio,
WHN, New York, N. Y. (361.2m-830kc), 7 p. m., Country club orchestra; 7:30, Treasureland Neighbors; 9:30, Palisades Amusement Park orchestra; 10, Roseland dance orchestra; 10:30, Strand roof orchestra; 11:30, Club Alabam orchestra; 12, Siver Slipper orchestra.
WIP, Philadelphia, Pa. (508.2m-590kc), 6:35 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.
WIZ, New York, N. Y. (454.3m-660kc), 7:05 p. m., Geo, Olsen's Hotel Pennsylvania Roof orchestra; 8, Sanford Florida Sunsbine hour; 9, Sundial Shoe Seronaders, Bonnie Laddics; 10, Westminster mixed quartet; 10:30, Harold Stern's Hotel Belleclaire Roof orchestra.
WLIT, Philadelphia, Pa. (394.5m-760kc), 8 p. m., recital; 8:15, Ploneer Storage Battery company entertainers; 9, Schickerling artlists; 10, Morning Glory club concert; 10:30, Rufus and Rastus; 11, Freshman Masterpiece hour.
WMAK, Buffalo, N. Y. (265.3m-1130kc), 6:30-7:15 p. m.,

terpiece hour.

WMAK, Buffalo, N. Y. (265.3m-1130kc), 6:30-7:15 p. m.,
dinner music, Hotel Lafayette orchestra; 7:30-8:15,
musical, Armbruster trio; 10:50-11:30, University Ter-

MINISTER AMBUTSHET LID; 10:10-11:30, University Terrace serenaders.

WMCA, New York, N. Y. (340.7m-880kc), 6:30 p. m., Ernic Golden and bis Hotel McAlpin orchestra; 8:45, Broadway association; 9, Paul Whitman's Picadilly players; 9:30, Kichin's Serenading Shoemakers; 10, Norman Pearce, readings; 11, Jack Denny's orchestra; 11:30, Club Brighton orchestra; 12, McAlpin entertainers.

WOO. Philadelphia. Pa. (508.2m-590kc), 8 p. m., WOO orchestra; 9, WEAF; 9:35, Fox theater program; 10, WEAF; 11, Sylvania dance orchestra. WOR, Newark, N. J. (406.2m-740kc), 6:15 p. m., Jacques Jacobs Hotel Shelton ensemble; 6:45, Jacques Jacobs Hotel Shelton ensemble: 6:45, Jacques Jacobs HOtel Shelton ensemble. WPNC, New York, N. Y. (526m-570kc), 7 p. m., piano selections.

Eastern Standard or Central Daylight

Hotel Shelton ensemble.
WPNC, New York, N. Y. (526m-570ke), 7 p. m., piano selections.

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.
WBAL, Baltimore, Md. (245,8m-1220kc), 6:30-7:30 p. m., dinner orchestra; 7:30-8. Howard R. Thatcher, organist; 8-9, instrumental and wocal soloists; 9-10, municipal band of Baltimore.
WBBM, Chicago, Ill. (225,3m-1330kc), 5-6 p. m., Eddie Hansen, organist; 8-9, Safety play period; 9-10, Glee club harmony four, Kay Ronayne, contralio; Lee Sims, "Hi and Si," Jack Crawford's Alemite high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Eunice Hoefer, organist.
WENR, Chicago, Ill. (265,3m-1130kc), 6-7 p. m., Rauland lyric tric; 8-9, Moody Bible Institute evening hour; 9-10, Arthur Dunas popular program; 12-2 a. m., All-American Pioneers.
WGES, Chicago, Ill. (249,9m-1200kc), 8-9 p. m., organ, Esther Elchards, Peggy O'Nelli; 11-1 a. m., Billy Fagan, Lew Butler, Pat Ryan, Josle Scott, Joe Morrison, Al Bernstein.
WGHS, Clearwater, Fla. (265,3m-1130kc), 6-7 p. m., dinner concert; Hotel Tuller; 10-11, WGHP entertainers; 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, Drake concert ensemble, Blackstone string quintet; 7:15-8, Faul Ash's orchestra; 8-8:30, nWEAT, 9:30-10, Phantom violin; 10-10:10, Sam in Gerald Marks' orchestra.
WGN, Chicago, Ill. (302,8m-990kc), 6:45-7 p. m., request program; 8:30-9, Curfew Capers; 9-9:30, WEAT, 9:30-10, Phantom violin; 10-10:10, Sam in Gersenble more trial of the service of the servi

nett. Chicago, III. (217.3m-1380ke), 6-7 p. m., Tipmett. Chicago, III. (217.3m-1380ke), 6-7 p. m., TipToy Inn strling ensemble concert; 10-1:30 a. m., Tearmetric Town club orchestra; Midway Gardens orchestra;
Delto orchestra; Cattal and his Kittens orchestra; Capitol theater rogram
WOD Grand Radios wiel. (241.8m-1240ke), 10:10
p. m., Ramona Radio reveiry, Ramona Gardens orchestra.

chestra.

'QJ. Chicago, III. (447.5m-670kc), 7-8 p. m., Rainbo Gardens orchestra; Peter Grosso, tenor; Lauralice duo; Maraldean Borresca, bartlone; 10-2 a, m., Rainbo Gardens orchestra; Flo and Ray; Romo Vincent; Murle Olsen, contralto; Johnny Poat, barltone; Harry Brooker, haritone

bartione.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m.,
Gold Standard ensemble; Speed-Wagon serenaders.

WRVA, Richmond. Va. (256.3m-1170ke), 7 p. m., Hotel
Richmond orchestra; 8:10, Stutz string orchestra; 8:35,
Stutz string band; 9:15, Singing troubadours; 10,
Golden Gate syncopators; 11, Carry Me Back to Old
Vivalnus

Golden Gate syncopators; '11, Carry Me Back to Old Virginny.

WSWS, Chicago, III. (275m-1090kc), 8 p. m., quintet; Georgia Gray; Jean Frances, tenor; 10, Terrace Garders quintet; Ruth Boutay, blues; Sid Plerson, Harry Davis; Art Billquist; 12 midnight, Witching hour.

WTAM, Cleveland, Ohio (389,4m-770kc), 6:30 p. m., Hotel Cleveland orchestra; 8, Euclid Beach Park orchestra; 9, WEAF; 9:30, Hawaitan program; 11, Euclid Beach Park orchestra.

WTIC, Hartford, Conn. (475,9m-630kc), 7 p. m., Laura C. Gaudet, planist; 7:15, "Fiddle an' Bee"; 7:30, Louis Colt Park Municipal Dance orchestra; 8:30, al Laubscher and family; 9:15, Mildred Abbey Johnson, songs; 9:30, WTIC's mail bag; 9:45, "The Debutantes" period. WM1. Detroit, Mich. (352,7m-850kc), 6 p. m., dinner concert; 8, Detroit News orchestra; 9, WEAF.

Central Standard Time Stations

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040ke), 7 p. m., songs, "The Lazy Farmer" 9, musical program, ausplees Hastings College conservatory.

KFNF, Shenandoah, Jowa (263m-1140ke), 7 p. m., Sunday sehool lesson; 7:30, Lafe Corbin.

KFRU, Bristew, Okla. (374.8m-800ke), 6-9 p. m., Josephine Storey-White,

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

KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m., Jacquinot Jules, organist; 7, KMOX Radio orchestra; 9, orchestra; Eva Sirwell, Bill Snyder; 9:30, Bamalogue; 10, music lover's hour.

KOIL, Council Bluffs, Iowa (277.6m-1080ke), 7:30 p. m., Clara Kurtz and her Chocolate cake-eater; 8:30, auspice program, Drescher Brothers, Inc.; Jack and Jill; 11, Holsy-Totsy hour.

KWCR, Cedar Rapids, Iowa (278m-1080ke), 7:30-8:30 p. m., Panther Hawaiian tric; 9:30-11, Mineral Wells program.

WBAP, Fort Worth, Texas (475.9m-630ke), 7:30-8:30 p. m., Panther Hawaiian tric; 9:30-11, Mineral Wells program.

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

studio program.

WBAP, Fort Worth. Texas (475.9m-630kc), 7:30-8:30 p. m., Panther Hawaiian trio; 9:30-11, Mineral Wells program.

WGOA, Pensaeola, Fla. (222m-1350kc), 7 p. m., West Floridian dance orchestra; Negro spirituals, Mt. Olive jubilee singers; Pensaeola Philhermonic orchestra. WCOO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 6:15 p. m. Peyer's Oxford theater orchestra; 8. WEAF; 8:30. Sumpmann trio; Mabel Polletier. contralto; 10:05, Nankin cafe orchestra; Albu Sisters; George Donovan, baritone.

WDAF, Kansas City, Mo. (365.8m-820kc), 6-7 p. m., Harry Frank, organist; 8-8:30, WEAF; 8:30-9:30, varied musicale; 11:45-1 a. m. frolic.

WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Harry Sorrs entertainers; 8:30-9:30, Southland Life Insurance company.

WGBF, Exasville, Ind. (236m-1270kc), 7:30-9 p. m., Triates of Penzance. (399.8m-750kc), 7:30-9 p. m., Triates of Penzance. Operatic ensamble, Greater Louisville savings and building association.

WHB, Kansas City, Mo. (368.8m-820kc), 7-8 p. m., Sweeney Radio orchestra; Mono Motor Oil Twoths. WHO, Des Molnes, Iowa (528m-570kc), 7:30-8 p. m., Philbrock and his Younker tea-room orchestra; 8-9, John Alberson, tenor; Caroline Riddle, planist; Dorothy Dinsmore, violinist; 11-12, Philbrock and his Younker tea-room orchestra; 11. Harry Nichols, oranist. WHO, Memphis, Tenn. (499.7m-600kc), 8:30 p. m., Hotol Gayoso orchestra; 11. Harry Nichols, oranist. WOAI, San Antonio College of Music.

San Antonio College of Music.

WOAW, Omaha, Nebr. (326m-570ke), 6 p. m., music;
6:30, Red Feather program; 9, program, Hannan-Van
Brunt campany

6:30. Red Feather program; 9, program, Haman-van a Brunt company.
WOC. Davenport, Iowa (483.6m-620kc), 8-8:30 p. m., WEAF: 8:30-9:30, Juvenile musical program.
WOS, Jefferson City, Mo. (440.9m-680kc), 8:20 p. m., musical program, Martin Brothers Piano company.
WSM, Nashville, Tenn. (282.2m-1060kc), 7 p. m., Andres Jackson hotel trio: 8, Mrs. Thomas Pinkerton, pianist; 10, studio program; 10:30, F. Arthur Henkel, organist.

Friday, July 23

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

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (407m-642kc), 7-7:30 p. m.,
Leslie Adams, whistler; 7:30-8, Felipe Delgado's
Media hora Espanola; 8-9, Aeolian organ; 9-10, Harry
Decker's Hawaiians; 10-11, Packard ballad hour.

KFWB, Hollywood, Calif. (252m-1190kc), 7:30-8 p. m.,
Paralta studios program; 8-9, program; 10-11, Warner
Brothers frolic.

KGO, Oakland, Calif. (361.2m-830kc), 6-6:55 p. m.,
Bem's Little symphony orchestra; 8-12 midnight, Lions'
club.

Bem's Little symphony orchestra; 8-12 minnight, Litons club.
KGW. Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 8-9, instrumental music; 9-10:30, concert; 10:30-12 midnight, Hoot Owls.
KHJ, Los Angeles, Cailf, (406.2m-740kc), 6:30-7:30 p. m., Uncle John and the children; 8-10, Times de luxe program; 10-11, Clement's Super-six orchestra.
KJR, Seattle, Wash. (384.4m-780kc), 8:30-10 p. m., Post Intelligencer studio program; 10-11, Nute Motor company studio program.
KNX. Hollywood, Cailf. (336.9m-890kc), 7-8 p. m., Loftus Land company, Bad Eggs; 8-9, Jell-X-Cell program; 9-10, Order of Optimistic Donuts; 10-11, Hollywood American Legion fights; 11-12 a. m., Ambassador hotel dance orchestra.

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

Saturday, July 24

Headliners Today

Atlantic Eastern Central Mountain Pacific 7.25 p. m. 6.25 5.25 4.25 3.25 WIZ (454.3m.-660ke), WRC (468.5m.-940ke), WGY (379.5m.-790ke), New York Philharmonic 3.30 7.30 6.30 5.30 4.330 WEAF (491.5m.-610ke), WGR (319m.-940ke), WWJ (352.7m.-870ke), Goldman band concert. 5 6 5

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., $\mathrm{CFCA's}$

CFCA, Toronto, Can. (356.9m-840ke), 9 p. m., CFCA's summer orchestra.
WBBR, New York, N. Y. (272.6m-1100ke), 8 p. m., Dr. Hans Haag, violinist; Fred Twaroschk, tenor.
WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, Elmer Grosso and his orchestra; musical comedy hits, WEAF Musical Comedy Troup; Goldman band concert; Irish and Scotch program; Waino Kauppi, cornetist; Ben Bernle's orchestra; Rolfe's Palais D'Or orchestra.

orchestra.

WGBS, New York, N. Y. (315.6m-950kc), 7:45 p. m.,
Arcadia orchestra; 10:30, Arrowhead inn dance or-

Arcada ordiestra, 10.09, Arcada Arcada ordiestra.

WHAR, Atlantic City, N. J. (275m-1090kc), 7:30 p. m., lecture period; 8, Seaslde hotel trio.

WIP, Philadelphia, Pa. (508.2m-590kc), 6:05 p. m., Benjamin Franklin concert ordestra; 8, sports eorner; 8:15, Hotel Ambassador orchestra; 9, Hotel Traymore orchestra; 9:45, Emmet Welch's Million Dollar Pier Minstrels; 10:15, Garden Pler dance orchestra; 10:45, Ted Weems' orchestra; 11:30, Hotel Shelburne dance orchestra.

orchestra.

WJZ, New York, N. Y. (454.3m-660kc), 7:05 p. m.

Waldorf-Astorla Roof orchestra; 8:25, Stadium Philharmonic concert, WRC; 10:30, Hotel Astor Roof or-

harmonic concert, WRU; 19:30, Hotel Assoc Acceptable Chestra.

WMAK, Buffalo, N. Y. (265.3m-1130kc), 6:30-7:15 p. m., dinner music, Hotel Onandaga orchestra; 7:30-8:30, musical program, Shea Buffalo theater; 8:30-11:30, musical.

WMCA, New York, N. Y. (340.7m-880kc), 7:15 p. m., Tappen's orchestra; 8:15, musical program; 11:15, Ernic Golden and his Hotel McAlpin orchestra; 12, McAlpin entertainers.

entertainers.

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

WOR, Newark, N. J. (405.2m-740kc), 8:30 p. m., Pryor's band; 9:30, Casino orchestra; 9:45, Berkeley Carteret concert orchestra; 10:15, brass quartet; 10:30, Monterey society orchestra; 11:15, Ben Bernie Berkeley Carteret grill.

Eastern Standard or Central Daylight

Saving Time Stations

KYW, Chicago, III. (535.4m-360kc), 7 p. m., muslchour; 8, KYW's Congress hotel studio; 9-10:30, classical concert; 10:30-12 midnight, Congress carnival; Benderick Congress carnival; Benderick Congress carnival;

hour; S. KYW's Congress hotel studio; 9-10:30, classical concert; 10:30-12 midnight, Congress carnival; Benson orchestra.

WBBM, Chieago, III. (225.3m-1330kc), 5-6 p. m., Eddie Hansen, organist; 8-9:30, Pullman Porters' quartet. Lee Sims, Eunice Hoefer, organist; 'HI and SI,' Alemite string trio, Fred L. Jeske, baritone; Kay Romayne, contraito; 9:30-10, Moss Covered melodies; 10-11:30, Fred L. Jeske, baritone; Florence Sangor, planist; Smith and Ford, Alemite high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Eunice Hoefer, organist; Lee Sims; 11:30-2 a. m., Pullman Porters' quartet, Jack Crawford's Alemite high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, WBBM staff artists.

WENR. Chicago, III. (265.3m-I130kc), 6-7 p. m., Esther Richards, Joe Morrison, Frank Sylvano, Louis Panico, Guyon's Paradise baliroom orchestra; 11-1 a. m., frolic. WGES, Chicago, III. (249.9m-1200kc), 8-9 p. m., Esther Richards, Joe Morrison, Frank Sylvano, Louis Panico, Guyon's Paradise baliroom orchestra; 11-1 a. m., frolic. UGN, Chicago, III. (302.8m-990kc), 6:35-7 p. m., dinner musle, 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; 40:10-10:22, Musle Box; 10:22-11, WGN studio ensemble.

WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., program, WMAK studio; 7:30, WJZ; 9:30, danee program; WHAR, Atlante City, N. J. (275m-1090kc), 8 p. m.,

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

WJAZ. Chicago, Ill. (329.5m-910ke), 9-1 a. m., Avery
McIntyre, planist; James Harvard, eellist; Whistling
Jim; Chez Pierre Hawailan quartet; Elmer Winthrop.

McIntyre, planist; James Harvard, eellist; Whtstling Jim; Chez Pletre Hawailan quartet; Elmer Winthrop, barltone.

WJID, Mooseheart, III, (370.2m-810kc), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Comptoris 'I see by the newspaper' man; Palmer House Victorians; 7-9, Isabel Defaut, Palmer House Victorians; Simeon Oliver; 9-11, Isabel Defaut, Palmer House victorians; Simeon Oliver; 9-11, Isabel Defaut, Palmer House Victorians.

WLIB, Chicago, III. (302.3m-990kc), 7:05-7:15 p. m., Old.-Fashloned Almanack; 7:15-7:30, Drake concert ensemble, Blackstone string quintot; 7:30-8, Drake concert ensemble; Blackstone string quintot; 7:30-8, Drake concert ensemble; Pattlson Coates, barltone; 11-11:20, Correll and Gosden; 11:20-1 a. m., Liberty studio ensemble; Ambrose Larsen, organist; Drake hotel dance orehestra; Fred Hamm's orchestra.

WLS, Chicago, III. (344.6m-870kc), 6:30 p. m., Blse Mae Look, organist; 7, Lullaby time, Elsic and Ralph; 7:15-1 a. m., National barn dance with fiddlers and callers; Maurie Sherman's orchestra; Ralph Emerson.

WLW, Cincinnati, Ohlo (422.3m-710kc), 7 p. m., organ concert. Johanna Grosse; 8. meeting of the Sekatary Hawkins club; 8:30, Henry Thele's Castle Farmers; 8:45, Creseendon male quarter.

WMAQ, Chicago, III. (447.5m-670kc), 6 p. m., Chicago theater organ rectait; 6:30, Jack Chapman's orchestra; 8, Daw and Pratt; 8:30, Radlo photologue; 9, Chicago theater weekly Radlo revue.

WMBB, Chicago, III. (249.9m-1200ke), 7-8 p. m., Tria-non ensemble, Elizabeth Reohlk, cellist; Margaret Con-rad, violinist; Preston Graves, pianist; Frank Bordner, baritone.

bartione.

WOK, Chicago, III. (217.3m-(380kc), 6-7 p. m., TipTop Ion 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-1240kc), 9 p. m.,
Elizabeth Barker Van Campen hour of music; 10:05,
studio program, Bob, Hazel McOsker, Freddie Gleason,
Thelma Dykman, Louis Cunningham, Dode and Mom,
Van Wyck's instrumental quartet, Ramona Gardens
orchestra.

Thelma Dykman, Louis Cumingham, Doug and xaom. Van Wyck's instrumental quartet, Ramona Gardens orchestra.

WRC, Washington, D. C. (468.5m-640kc), 7:30, WJZ; 10, Kltt hour of music; 11-12, Otto F. Beck, organist. WREO, Lansing, Mich. (285.5m-1650kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 10-12, Speed-Wagon serenaders; 12-12, Speed-Wagon serenaders; 10-12, Speed-Wagon serenaders; 12 midnight, Lelia Ledar, Latonia Melody Boys, Norrine Gibbins, Priscilla Holbrook, Malds of Melody. WSWS, Chicago, III. (275m-1090kc), 8 p. m., orchestra; staff artists; 10, quintet; Matthews Sisters; Fr.ddie Wittimer, pianist; Myron Chon, saxophonist; 12 midnight, Witching hour.

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

WWJ. Detreit, Mich. (352.7m-850kc), 7:30 p. m., Gold-

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

period; 6:50, orchestra; 7:30, Creighton educational period; 9, classical; 10, Elks club, WOC. Davenport, Iowa (483.6m-620kc), 9-10 p.m., old flddlers program.

VSM, Nashville, Tenn. (282.8m-1060kc), 7 p.m., Andrew Jackson hotel trio; 8, popular and barn dance program.

Mountain Standard Time Stations FXF, Colorado Springs, Colo. (250m-1200kc). 9 p. m., Sells-McClusky first orchestra.

Pacific Standard Time Stations

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m.642ko), 7.8 p. m.,
Knights of the Knotes; 8.9, Angelus string trio; 9-10,
program arranged by Robert Hurd; 10-11. Packard
Radio culo; 11-2 a. m., KFT midnight frolic.
RWB, Hollywood, Calif. (252m.1190ko), 6-7 p. m.,
Pantiae Six dinner hour; 8-10, Bill Hatch and his
Oakmont Country club orchestra; 10-11, Warner Brothers
frolic.

KGO, Oakland, Calif. (361.2m.830kc), 8:10 p. m., Lions'
clubs; Columbia Park Boys' band; A. O. T. Astenius,
organist; 'Making a Moyle'; 10-1 a. m., Hotel Whitcomb band.

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

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

KHJ, Los Angeles, Call. (1908)
p. m., Uncle John and the children; 8-10, Tower studio musical program.
KJR, Seattle, Wash. (384.4m-780ke), 8:30-10 p. m., L. C. Warner company studio program.
KNX, Hollywood, Calif. (336.9m-890kc), 7:30-8 p. m., studio program; 8-9, Luna Park program; 9-10, Broad-

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-790kc), Book talk.

8 7 6 5 4

WJZ (454.3m-660kc), Motion picture.
10:30 9:30 8:30 7:30 6:30 WGRD (275m-1990kc), Travel talk, Clarence J. Perfitt. 11 10 9 8 7 KFWB (252m-1190kc), Fishing and hunting.

Friday, July 16
Atlantie Eastern Central 5 p.m. 7
WOAW (526m-570kc), Music review, Hester Bronson Copper. 8:30 7:30 6:30 5:30 4:30
WMCA (340.7m-880kc), Talk, T. R. Weyant, 8:45 7:45 6:45 5:45 4:45
WOI (370m-1110kc), "Joy Killers," Dr. William S. Saddler. S. Saddler. 11:30 10:30 9:30 8:30 7:30 WOAW (428.3m-700ke), "Industrial San Fran-cisco," Capen A. Fleming.

Saturday, July 17

Atlantic 10 p. m. 9 7 6
WGBS (316m-950kc), "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
WHAR (275m-1090kc), Book review, Edna Mirlam
Hoones,

Tuesday, July 20
Atlantic Eastern Central Mountain Pacific 7:30 p. m. 6:30 5:30 4:30 3:30
WGY (379.5m-790kc), "Plant and Animal Life in the Sargasso Sea." WGY (379.5m-790kc), "Plant and Animal Lile in the Sarrasso Sea."
WHAR (275m-1090kc), "Glimpses through the Stage Door," Mort Elseman.

8 7 6 WLW (422.3m-710kc), "Your Week-End Trip," 8:15 7:15 6:15 5:15 4:15 WMCA (340.7m-880kc), Talk, T. R. Weyant.

9 8 7 6 5 Wylz (454.3m-660kc), Tour. 6:30 (5:30 9:30 8:30 7:30 6:30 (5:30 WMAQ (447.5m-670kc), "United States Government Activities in Chicago." 6:40 5:40 WMAQ (447.5m-670kc), "Architects" Small House Service talk 1:30 10:30 8:30 7:30 WCCO (416.4m-720kc), "Outdoors in Minnesota." Wednesday, July 21

Wednesday, July 21

Atlantic Eastern Central Mountain Pacific 8:30 p. m. 7:30

Sign of 9 6 5

WKRC (422.3m-710ke), Book talk,

WOS (440.9m-680ke), "Missourt," Gov. Baker,

11:15 10:15 9:15 8:15 7:15

KFYUO (545.1m-550kb), "How Do We Receive the

Holy Ghost," Rev. Hehenstein.

Thursday, July 22

Atlantic Eastern Central Mountain Paoific 9:45 p. m. 8:45 7:45 6:45 5:45

WRVA (2:56.3m-1170kc), Safety talk, Leonard F. Herold.

Hoads, O. 1. Steele.

11 10 9 8 7

WNYC, (526m-570kc), Talk, Dr. Frank Vizetelly.

Monday, July 26
Atlantic Eastern Central Mountain Pacific 8 p. m. 7
WOR (405.8m-740kc), Current Events, H. V. Kaltenborn. States Biological Survey." Stanley Young.

11:5 10:15 9:15 8:15 8:15 7:15 Rev. O. Lindemeyer. tenborn.

Tuesday, July 27
Atlantic Eastern Central Mountain Pacific Atlantic Eastern Central Mountain Pacific 7:30 p. m. 6:30 5:30 4 May Flies; "Dance of Death: "The May Flies," "Dance of Death: "Barrier Mountain Pacific 7:30 p. m. 6:30 WGY (379.5m-790kc), "The May Flies," "Dance of Death: "Barrier Mountain Pacific Medical Flower May Flies," "Dance of Death: "Barrier Medical Flower Medi 10 9 8 7 WJZ (454.3m-660kc), Grand tour. II 10 9 8 WMAQ (447.5m-670kc), Book talks. 11:30 10:30 9:30 8:30 7:30 KHJ (405.2m-740kc), Dogs. WCCO (416.4m-720kc), "Outdoors in Minnesota."

Wednesday, July 28
Atlantic Eastern Central Mountain Pacific
7 p. m. 6 5 4 3 7 p. m. 6 5 4 3 WTAG (267.7m-1120kc), Book talk, Robert K. Sbaw.

9 8 7 6 5 KFKX (288.3m-1040kc), "Doings in Washington," Congressman Robert G. Simmons. 10 9 8 7 WHB (365.6m-820kc), Automotive talk. II 10. 9 8 7 KFUO (545.1m-550kc), "What Is an Erring Conscience?" Prof. J. T. Mueller.

Thursday, July 29

Atlantic Eastern Central Mountain 7:30 p. m. 6:30 5:30 4:30

WGY (379.5m-790kc), Book talk. Pacific 3:30

8 WJZ (454.3m-660ke), Motion picture. 10:30 9:30 8:30 7:30 6:30 WORD (275m-1090kc), Travel talk, Clarence J. Perfitt.

11 10 9 8 KFWB (252m-1190kc), Flshing and hunting.

Friday, July 30

Atlantic Eastern Central Mountain Pacific 8 p. m. 7 6 5 4

WOAW (526m-570kc), Music review, Hester Bronson Copper.

Central Standard Time Stations

KFNF, Shenandeah, Iowa (263m-1140kc), 7 p. m., open; 11, old-time musie, KFRU, Bristow, Okla. (374.8m-800kc), 6.9 p. m., Marshall Van Pool and his 2adlo KVOO orehestra. KLDS, Independence, Mo. (440.9m-880kc), 8 p. m., studio program arranged by Norma Troje Miller, violinist. KMA, Shenandoah, Iowa (252m-1190ko), 9-11 p. m., Ye Olde Tyme Gang songs; Willy Cunningham the farmer Scotchman.

Scotchman Sang Songs, Willy Cumingham the latine Scotchman Router Scotchman Scotchman

hour.

KPRC. Houston. Texas (296.9m-1010ke), 7:30 p. m.,

Universal Bible class, conducted by Rev. Claude L.

Jones: 8, popular studio concert; 10, National Advertisers' essay contest. WBAP, Fort Worth, Texas (475.9m-630kc), 8-8:30 p. m., Vesper symphony; 9:30-11, old fiddlers, Gordonville.

Vesper symphony; 9:30-11, old fiddlers, Gordonville.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 6:15 p. m., Emmet Long's Golden Pheasand orchestra; Didrikka Stub, soprano; 8:15, Flor's Little German band; 9:15, Teeter and Johnson, entertainers; Edward Schwarzkopf, clarinetist; 10:05, Wallie Erickson's Coliseum orchestra; Agnes Iverson, whistler; Jean Eatinger, entertainer.

WDAF, Kansas City, Mo. (365.6m-820kc), 6-7 p. m. orchestra; 8-10, around the town with WDAF; 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, Col. Bill Cole and his varied entertainment; 11-12, Jack Gardner's or-chestra.

WHAS, Louisville, Ky. (399.8m-750kc), 7:30-9 p. m., concert, auspices Helen Chase, Nicholas Bohn. wMC, Memphis, Tenn. (499.7m-600kc), 8:30 p. m.. orchestra, Robert L. Sharp, director.
wOAW, Omaha, Nebr. (526m-570kc), 6 p. m.. literary way Department store; 10-11. Ambassador hotel dance erchestra; 11-1 a. m., Edgewater club.

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

KTAB, Oakland, Calif. (239.9m-1250kc), 7-7:30 p. m., shopping hour.

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. WCAU (277.6m-1080ke), Bonwit Teller ensemble,
9:15 8:15 7:15 6:15 5:15
WEAF (491.5m-610ke), WEEI (348.6m-870ke),
WGR, (319m-940ke), WCAP (468.5m-690ke),
WGN (302.8m-990ke), WCAU (468.5m-920ke),
WGN (302.8m-990ke), WCCO (416.4m-720ke),
KSD (545.1m-550ke), Atwater Kent program,
11:30 10:30 9:30 8:30 7:30
WOC (483.6m-620ke), Palimer Little symphony,
WBAP (475.9m-630ke), Hired Hand's Little symphony, phony,

I.a. m. 12 m. 11 10 9.

WFAA (475.9m-630ke), Shaw-Smith college club orchestra.

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

Atlantic or Eastern Daylight Saving Time Stations

CFCA, Terente, Can. (356.9m-840ke), 11 a. m., Tlmothy Eaton Memorial ehurch; 7 p. m., St. Paul's Angliean church; 9:30, musicale, WBBR, New York, N. Y. (272.6m-1100kc), 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.

WGAU, Philadelphia, Pa. (277.6m-1080kc), 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-610kc), 7:20 pm. Capitol Theater Family, WEEI, KSD, WCAP, WWJ, WJAR, WCAE; 9:15, Atwater Kent Radio program, WEEI, WGR, WCAP, WWJ, WSAI, WGN, WCCO, KSD; 9:45-10:15, Goldman, Band concert, WEEI, WJAR, WTAG, WCSH, WSAI, WGN, WCCO, WJAR, WTAG, WCSH, WSAI, Dand concert, WEEI, WHAR, Atlantio City, N. J. (275m-1090kc), 10:45 a. m., Cholsea Baptist, church; 2:15 p. m., Seaside hotel crisemble.

trio; 7:50, Chelsea Baptist church; 9, Senside hotel cnsemble.

WHM New York, N. Y. (381.2m.-830kc), 7:30 p. m. Calvars evening services; 10:35, Janssen's Hofbrau orchestry; 12, Sophie Tucker's playground.

WIP, Filladeiphia, Pa. (508.2m.-590kc), 10:30 a. m., sortices, Holy Trinity church.

WZ. New York, N. Y. (454.3m.-660kc), 6 p. m., staff results of the control of the control

Eastern Standard or Central Daylight Saving Time Stations

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

Presbyterian church; 4, studio concert; 9:30-11, classical concert.

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

WBBM, Chicago, III. (225.3m-1330kc), 5-6 p. m., Eddie Hansen, organist; 8-10, Jack Crawford's Alemite high pressure orchestra, Howard Osburn's Vanity Fair cafe orchestra, Pauline Atlass, violinist; Maurice Silverman, tenor; Kay Ronayne, contralto; Hazel McBroom, contralto; Fred L. Jeske, baritone; Florence Sangor, planist; 12 midnight, The Nutty club.

WENR, Chicago, III. (265.3m-1130ko), 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 hour; 6-7, Moody Bible Institute hour; 6-7, Moody Pible Institute evening hour; 9:30-12, All-American Ploneers.

Bible Institute evening hour; 9:30-12, All-American Ploneers.

WGES, Chicago, III. (249.9m-1200kc), 10:30 a. m., Austin M. E. church; 11:45, high mass; 5-7:40, after-noon musicale; 11-1 a. m., Ray Hibbler, Lew Butler, Marg, Van, organ, orchestra.

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

WGN, Chicago, III. (302.8m-990kc), 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, Drako concert ensemble, Blackstone string quintet; 8:15-8:45, WEAF; 8:45-9, mustcal program; 9-10, Our Muslc room; 10-10:10, Sam 'n' Henry; 10:10-11, WGN studio ensemble, WGY, Schenectady, N. Y. (379.5m-790kc), 6 p. m., miscelaneous program; 9-9:30, WJ&son orchestra; 8:30, miscellaneous program; 9-9:30, WJ&son orchestra; 8:30, miscellaneous program; 9-9:30, WJAR, Atlantic City, N. I. (2275m-1090kc), 10:45 a. m., Chelsea Baptlst church; 2:15 p. m., Seaside hotel trio; 7:50, evening service; 9, classical program, Seaside hotel ersemble.

WJAZ, Chicago, III. (329.5m-910kc), 7-9 p. m., Dangremond trio; Kathyn Ready, soprano; John Bennet Ham, WJJD, Mooseheart, III. (370.2m-810kc), 12-2 p. m., How-

mond trio; Kathryn Ready, soprano; John Bennet Hami, haritone.

WJD, Mooseheart, III. (370.2m-810kc), 12-2 p. m., Howard L. Peterson, organist; 1:30-3:39. Mooseheart Sunday concert; 2:30-4, Mooseheart Radio Bible class; 3-5:39. Palmer House Sunday symphony orchestra.

WLIB, Chicago, III. (302.8m-990kc), 5-5:45 p. m., Liberty studio ensemble; 5:45-6:15, Edward Benedict, organist.

WLS, Chicago, III. (344.6m-870kc), 7-3:55 p. m., WLS Little Brown Church in the Vale; WLS trio; Sol Heller, baritone.

bartione.

'U.W. Cinclinnati, Ohio (422.3m-710kc), 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

T. M. C. A.; 3 p. m. organ rectiat, J. Altred Schemi;
7:30, First Presbyterian church; 8:30, Crosley ensemble
orchestra.

WMBB, Chicago, Ill. (249.9m-1200ke), 7-8 p. m., Trianon ensemble and vocai artists in sunset musical; 9-11,
Trianon orchestra. Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Trianon ensemble, Billle Allen
Hoff, Vall and Abbott, Joe Parsons, Bob Bennett.
WOK, Chicago, Ill. (217.3m-1380kc), 6 p. m.-1 a. m.,
Tip-Top Inn string ensemble concert; Tearney's Town
club orchestra; Midway Gardens orchestra; Pershing
Palace orchestra; Maldway Gardens orchestra; Pershing
Palace orchestra; Katz and his Kittens' orchestra;
Capitol theater program.
WREO, Lansing, Mich. (285.5m-1050kc), 10:30 a. m.,
First Baptist church; 7:30, Reo Motor Car company
band; John George, solotst.
WSAI, Cincinnati, Ohie (325.9m-920kc), 7:45 p. m.,
chimes; 8, sermonet; 8:15, WEAF; 8:45, WEAF,
WSWS, Chicago, Ill. (275m-1090kc), 11 a. m., Moody
church; 3:30 p. m., popular service; 7, song service.
WTAM, Cleveland, Ohio (389.4m-770kc), 10:30 a. m.,
First Methodist church; 7 p. m., Park theater orchestra; 8, twilight musicale.
WJ. Detroit Mich. (352.7m-850kc), 10 a. m., First
Presbyterian church; 2 p. m., Detroit News orchestra;
6:20, WEAF; 8:15, WEAF;
Central Standard Time Stations

Central Standard Time Stations

KFRU, Bristow, Okla. (374.8m-800kc), 12:30-7 p. m., pipe organ, band; 7:30-9, worship hour.
KLDS, Independence, Mo. (440.9m-680kc), 6:30 p. m., Radio vesper service, KLDS Ladies' quartet, sermonet, Ralph W. Farrell; 9:15, Apostle Paul M. Hanson.

Ralph W. Farrell; 9:15, Apostle Paul M. Hanson.

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

KOIL, Council Bluffs, lowa (277.6m-1080kc), 7:30 p. m.,
Paramount program; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010kc), 8 p. m., First
Christian church; 9:30, Skyline studios; 11, pipe organ.

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

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

WFAA, Dallas, Texas (475.9m-630kc), 2:30-3 p. m.

Hired Hand's Little symphony.

WFAA, Dallas, Texas (475.9m-630kc), 2:30-3 p. m.,
Farmers' hour; 6-7, Radlo Bible class; 7:15-8, Willard
B. Muse, tenor; Ruth Muse, contraito; 8-9, First
Church of Christ, Scientist; 9-9:30, Dr. E. R. Barcus;
11-12, Shaw-Smith College club orchestra.

WHAS, Louisville, Ky. (399.8m-750kc), 10 a. m., St. Boniface church.

WHB, Kansas City, Mo. (365.6m-820kc), 9:40 a. m..
Linwood Blvd. Christian church; 11:15, Independence
Blvd. Christian church; 8-9:15, evening services; 11:16,
Linwood Radio featuro.

WHO. Des Moines, Iowa (526m-570kc), 5-6 p. m..
Bankers Life Little symphony orchestra; 7:30-8:30,
Fourteenth Cavalry band.

WMC, Memphis, Tenn. (499.7m-660kc), 11 a. m., services, First Methodist church.

WOAI, San Antonio, Texas (394.5m-760kc), 11 a. m.,
First Presbyterian church; 7:45, Central Christian
church.

church.

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

WSIII Inwa City. Iowa (483.6m-620kc), 9 p. m., familiar

Mountain Standard Time Stations KOA, Denver, Colo. (322.4m-930ke), 6:30 p. m., vocal solos and string quartet; 8, Denver municipal band.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642kc), 7-8 p. m., Jim; Jack and Jean trio; 8-9, Aeolian organ; 9-10, Badger's Hollywood, Californians; 10-11, Paekard Six orehestra. KFWB, Hollywood, Calif. (252m-1190ke), 9-11 p. m., Warner Brothers Sunday night movie frolic. KGW, Portland, Ore. (491.5m-610ke), 10:25 a. m., services; 7:30-9, evening scrvice; 9-10, Chevrolet symphony orchestra.

orchestra.

KHJ, Los Angeles, Calif. (405.2m-740ke), 7-8 p. m.,
First Methodist Episcopai church; 8-10, feature program presenting Orpheus Four in request numbers.

KNX, Hollywood, Calif. (336.9m-890kc), 7-8 p. m., Circle
theater organ and orchestra; 8-9, First Presbyterian
Church of Hollywood; 9-10:30, Beverly Hills Nurseries
program.

Monday, July 26

Headliners Today

Atlantic Eastern 7.30 6.30 5.30 WCOA (222m-1350ke), U. S. Naval air station band. 10 8.30 7.30 6.30 7.30 6.30 7.30 6.30 WLW (422.3m-7.10kc), Charleston lesson. 10.30 8.30 7.30 6.30 KOIL (277.6m-1080kc), Clara Kurtz and Her Chocolate Cake-Eater. KOIL (277.6in-1080kc), Clara Rules and late Cake-Eater. KWWG (277.6in-1080kc), Pelays Quintano. WMC (499.7m-600kc), Joe Bennett's Moonlight syncopators. 10 9 8 7 KFI (467m-642kc), Owen Fallon's Californians. 2 a. m. 1 10

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

Atlantic or Eastern Daylight Saving Time Stations

Time Stations

CKNC, Toronto, Can. (336.9m-840ko), 9 p. m., Eveready orchestra; Eveready male quartet.

CNRM, Montreal, Canada (440.7m-730kc), 9 p. m., Metropolitan instrumental quartet.

WBBR, New York, N. Y. (272.6m-1100kc), 8 p. m., Jubilee entertainers.

WCAU, Philadelphia, Pa. (277.6m-1080kc), 7:30 p. m., necital, N. Snellenburg and company; 8, recital; 8:30, Hood Boys; 8:45, Merry Minstrels; 9:30, Roy Tracy, tenor; Chalfant Sisters; 10, Madrigal Mixed quartet; 10:30, Eddle Campbell and orchestra.

WEAF, New York, N. Y. (491.5m-610ko), 4-12 midnight, tea music; Meyer Davis' Park Lane orchestra; Goldman band concett; grand opera.

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), 7:30 p. m.

Seaside notel tro; 11, Founts Bergere dance orenestra.

WHN, New York, N. Y. (361.2m-830ke), 7:30 p. m.,
Joe Ward's Swanee entertainers; 8, Roseland dance orchestra; 9, Leverich Three and "Peter the Great';
9:30, Loew's New York orchestra; 10, Paliades Amusement Park orchestra; 10:30, Leroy Smith's orchestra;
11, Cotton club orchestra; 11:30, Club Alabam orchestra;
12, Silver Slipper orchestra.

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

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

VIZ, New York, N. Y. (454.3m-660ke), 7:05 p. m., Hotel Madison dinner concent orchestra; 7:55, John B. Kennedy; 8, Maxwell House Coffee ensomble; 10:30, Hairy Leonard's Waldorf-Astoria Roof orchestra.

WIT, Philadelphia, Pa. (394.5m-760ke), p. m., Stanley Hour own music; 10, Areadia dance orchestra.

WIT, Philadelphia, Pa. (394.5m-760ke), p. 50 p. m., soprano; 10, and the concentration of the conce

tainers. WNYC, New York, N. Y. (526m-570ke), 6 p. m., piano WNYU, New York, N. T. (526m-570ke), b p. in., piano selections; 7:35, songs. (508.2m-590ke), 7:30 p. m., Ritz Carlton dance orchestra; 8:39, organ recital; 9, Sesquieentennial program; 10. Adalphia dance orchestra: WOR, Newark, N. I. (495.2m-740ke), 9:45 p. m., Monterey society orchestra; 10:45, Monterey concert quintet; 11:15, Ben Bernie Berkeley Carteret grill.

Eastern Standard or Central Daylight Saving Time Stations

WBAL, Baltimore, Md. (245.8m-1220ke), 6:30-7:30 p. m., dlnner orchestra; 7:30-8, male quartet; 8-9, trlo; 9-10, WBAL dance orchestra, WGBD, Zion, III. (344.6m-870kc), 9 p. m., mixed quar-tet, eelestial bells; John D. Thomas, bartlone; Doro-thy, Bull, soprano; duets; trios; Alexander DePew,

Central Standard Time Stations

Central Standard Time Stations

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

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

KMA, Shenandoah; Iowa (232m-1190ke), 9-11 p. m., Corey and Carl of Corning, 2-piano recital.

KMOX, St. Louis, Mo. (280.2m-1076ke), 6:30 p. m., Jacquinot Jules, organist; 7, Buster's saxophone quintet; 8, KMOX Radio orchestra; 9, organ and piano duo, Jacquinot Jules, organist; 7, Buster's saxophone quintet; 8, KMOX Radio orchestra; 9, organ and piano duo, Jacquinot Jules, Jorganist, 7, Buster's saxophone quintet; 8, KMOX Radio orchestra; 9, organ and piano duo, Jacquinot Jules, and Carlos (277.6m-1080ke), 6:03 p. m., Ole' Don Hill and his ukulele; 7:30, Kenyon's melody kings; 8:30, Clara Kurtz and her chocolato cake-cater; 9, studio program; 10, Barnyard Twins; 11, Hotsy-Totsy hour.

KPRC, Houston, Texas (296.9m-1010ke), 7:30 p. m., Records' Ramblers; 8, Max E. Shipee, tenor; Mrs. Harmon Whittlngton, pianist; 8:15, dance music. KWCR, Cedar Rapids, lowa (278m-1080ke), 9 p. m., musicale.

KWCR, Cedar Hapins, Iowa (275m-1000ke), 9 p. m., musicale, KWWG, Brownsville, Texas (277.6m-1680kc), 8:30-9 p. m., Pelays Quintano, guitar and Canciones Mexicanos; 9-9:20, Mrs. C. W. Davenport, contralto; Dave DeKorle, baritone; 9:20-9:40, Doc Dutro, harmonica; Tom Barber, pianist; 12-1 a. m., novelty and jazz; E. C. Toothman, announcer; Beth Sewell and Florine

Pierce, accompanists.

WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30
p. m., program, Farin F. Ross, director; 9:30-11,
Mrs. J. E. Cooley; 11-12 mldnight, Don Stegall and

Mrs. J. E. Couley, 11-12 Mills Band.
WCOA, Pensacola, Fla. (222m-1350ke), 7 p. m., concert,
U. S. Naval Air station band; Mrs. Ben's young
ladies' chorus; WCOA string quartet.
WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m..
Honey Boys orchestra; 8:30-9:30, agricultural pro-

gran.
W HB. Kansas City, Mo. (365.6m-820ke), 7-8 p. m.,
Sweeney Radio orchestra.
W HO. Des Moines, Iowa (526m-570ke), 7:30-8 p. m.,
Philbreck and his Younker tea-room orchestra; 8-9,

CLASSICAL CONCERTS INDEX

Atlantic Eastern Central Mountain Pacific 7:20 p. m. 6:20 5:20 4:20 3:20 WCAE, WCAU, WEAF chain, WJAR, WJAZ, WWJ. 8:30 7:30 6:30 5:30 4:30 KOA. 10 9 8 7 6 KFDM, KPRC, WBZ, WCBD, WCCO, WGY. 7:15 9:15 8:15 WEAF chain. 6:15 7:45 6:45 9:45 **8:45** WEAF chain. II 10 9 KFAB, KHJ, KNX, KTHS, KYW, WCCO, WFAA, WOC, WSOE. 12 m. 11 KHJ, KNX, KPO, KTHS, WERC, WOC. 10 la.m. 12 m. 11 KHJ, KNX, WOC. 12 m 11

Monday Atlantic Eastern Central Mountain Pacific 7 p. m. 6 KGO, WCX, WEAF, WOK, WREO, WWJ. 7:30 6:30 5:30 4:30 3:30 KFAB. 8 7 6 5 4
KMA, WBBR, WCCO, WEAF, WEAR, WHAR, WHAD, WHT, WJR, WMBB, WOAW, WTAG. 9 8 7 6 KFNF, KSD, WBZ, WCX, WLW, WTIC. 5 6:30 8:30 7:30 KOA.

10

9

WEAF chain, KFAB, KGO, KHJ, KPRC, WCCO, WHZ, WHAD, WHO, WLW, WORD, WOS, WDAF.

10

S

KMA, KOA, KPO, KPRC, KSD, KTHS, WAMD, WCCO, WHAD, WOAW, WSAI, WSUI. 10:15 9:15 8:15 12 m. 11 10 9 KGW, KHJ, KMA, KSD, KTHS. I a. m. 12 m. KGW, WBAP. 12 m 11 2 КНЈ.

Tuesday

Atlantic Eastern Central Mountain Pacific 7 p. m. 6 5 4 WBZ, WCX, WREO, WWJ. 7:30 6:30 5:30 4:30 KFAB. 8 7 6 5 4 WMAQ, WOK, WSAI, WTC, WWJ. 8:30 7:30 WSAI, WTC, WWJ. 8:30 7:30 KFAB. WWB, WWB, WWB, WRC, WTC, WWJ. 9 WMBB, WQJ, WRC, WTIC, WEAF Chain. 9:30 8:30 7:30 6:30 5:30 KOA. 10 9 9 9 3:30 KOA.

9
8
7
6
KFDM, KGO KHJ KYW, WCAE, WCBD, WCCO, WEAF, WEEI, WGR, WHAS, WJAR, WLW, WMAQ, WWAY, WLW, WMAQ, WC, WORD, WSAI, WTAG.

11
10
8
KFAB. KFDM, KFUO, KMA, KNX, KPRC, KTHS, WCAE, WCCO, WEAF, WEEI, WLW, WMCA, WOC, WSOE, WTAG.

12 m. 11
10
10
14 m. 12 m. 11
10
15 KFO, KYW, WHO, WMC.

8 7 6 5 4 KGO, WHAD, WJR, WMAQ, WOK, WTIC.

Atlantic Eastern Central Mountain Pacific 9 p. m. 8 7 6 5 KFNF, KPRC, KSD, KYW, WAMD, WBZ, WCX, WPAF, WEEI, WHT, WLW, WMBB, WMCA, WQJ, WTAG, WWJ. 9.30 8:30 7:30 6:30 5:30 KOA. 100 9 8 7 6

KGO, KPRC, KSD, KYW, WBZ, WCCO, WDAF, WEEL, WGR, WHAD, WHAS, WJAR, WMAQ, WOR, WOS, WORD.

11 10 9 8 7

KMA, KNX, KTHS, WAMD, WCCO, WEAF, WNYC, WOC, WSOE.

12 m. 11 10 12 m. 11 10 9 8
KGO, KGW, KMA, KPO, KTHS, WCAE, WLS,
WLW, WOC, WSAI. 1 a. m. 12 m. 11 10 KGW, KPO, WHAD, WLW. wlw.

Thursday

Atlantic Eastern Central Mountain Pacific 7 p. m. 6 5 4 WBZ, WCX, WIP, WREO, WWJ. 8 7 6 5 WHAD, WOR, WWJ, WWJ, WWJ, W.M.A.W., WOAW, WOK, WQJ, WWJ.

9 8 7 7 8 7 WCAU.

WEEI, WGR, WGY, WHAR, WHT, WLS, WLW, WMBB, WOAW, WTAG, WTIC.

9:30 8:30 7:30 6:30 5:30 KOA.

10 9 8 7 WCAE, WCAU, WCBD,
WCCO, WEAF, WEEL, WGR, WHAR, WHAS,
WIAR, WJAZ, WNYC, WOC, WORD, WRC,
WSAI, WSB, WTAG.

11 10 9 8
KNX, KPRC, KTHS, KYW, WAMD, WGR,
WGY, WHAD, WJAZ, WMC, WOAW, WCC, 12 m. 11 10 9 8 KGO, KPO, KTHS, WBAP, WJAZ, WKRC. 1 a.m. 12 m. 11 10 9 KGW, KPO, WHO, WKRC.

Friday Atlantio Eastern Central Mountain Pacific 7 p. m. 6 KGO, WCX, WMCA, WREO, WWJ. 7:30 6:30 5:30 4:30 KFAB.

| Saturday | Atlantic | Eastern | Central | Mountain | Pacific | 7 p. m. | 6 5 | 4 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 7:30 6:30 5:30 4:30 3:30

KFAB. 8

KGO, KYW, WENR, WMAQ, WNYC, WOAW, WRC.

9 8

KDRA, KFNF, KOIL, KSD, KYW, WBBR, WGN, WMBB, WNYC, WOAW, WQJ.

10 9 8

KPRC, KHJ, KYW, WHAS, WIP, WLW, WORD.

WSAI, WSOE.

11 10 9

KNX, KYW, WEAF, WMAQ, WMC, WOAW, WOC, WORD.

12 m. 11 10 9 8

KGO. 12 m. 11 18 9

WOAW.

WSM, Nashville, Tenn. (282.8m-1060kc), 7 p. m., Andrew Jackson hotel tric; 8, Lucie Van Valkenburg, teacher of pisno; 10, Vito and his Radio seven. WSUI, lowa City, Iowa (483.6m-620ke), 8 p. m., musical

Mountain Standard Time Stations
(FXF, Colorado Springs, Colo. (250m-1200kc), 9 p. m.
Margaret Delano Osborn, planlst; Grace D. Fitzgerald, soprano.

ald, soprano.

OA, Donver, Colo. (322.4m-980kc), 6:30 p, m., Brown
Palace string orchestra; 7:30, Sandman's hour; 8.
Scheuerman's Colorado orchestra; 8:15, vocal duets,
Mrs. Julian C. Biley, soprano; Gorda Klein, contralic;
Bonnie Veeder, accompanist; orchestra overture. Pacific Standard Time Stations

Fallon's Californians; 8-9, classical hour; 9-10, program, Walter M. Murphy Motors company, KPO; 10-11, program, Meiklejohn Brothers.

KFWB, Hollywood, Calif. (252m-1190ke), 7:30-8 p. m., program, Dr. Ralph Mitchell and Associated Dentists; 8-9, Sealy Mattress company program; 9-10, program, American Dye Works; 10-11, Warner Brothers frolic. KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 8-9, organ recttai; 9-10, vaudeville entertainment; 10-12 midnight, Spanish ballroom.

mem; 19-12 midmight, Spanish oalfroom.
KNX. Hollywood, Calif. (336.9m-890kc), 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,
Alexandria hotel dance orchestra; 11-12 midnight, Ambassador hotel dance orchestra.



musicale, MMC, Memphis, Tenn. (499.7m-600kc), 8:30 p. m., Joe Bennett's Moonlight syncopators.

WOAW, Omaha, Nebr. (526m-570kc), 6 p. m., Hugo G. Heyn, marimba solist; Emil B. Hofmann, Pianist; 6:30, orchestra; 9, classical.

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

Tuesday, July 27

Headliners Today

Atlantic Eastern Central Mountain Pacific 7:30 p. m. 6:30 5:30 4:30 3:30 WOO (508.2m-590ke), Program, Sesguicentennial. 8:30 7:30 6:30 5:30 41:30 WFAA (475.9m-630ke), Troy Floyd's orchestra. 9 6 5 \text{VFAA} (470.9m-50vac), 1409 1034 5 0.55.5 9 8 7 6 5 \text{WGHP} (270.1m-1110kc), Campers' half hour. WGY (379.5m-790kc), "In India," operetta. 9:30 8:30 7:30 6:30 5:30 \text{WBAP} (475.9m-630kc), Massengales. WHAS (399.8m-750kc), Cardinals. 10 9 8 7 6 \text{WBAL} (245.8m-1220kc), Municipal band of Baltimore. 12 m. 1! 10 9 8 KMOX (280.2m-1070kc), "Aus Russland," KMOX

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

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving
Time Stations

CNRA, Mencton, Canada (322.4m-330kc), 9 p. m., Mrs.
Neva Buckley Inch. contralto; Mrs. Edith Hyndman;
Laura Wightman; 11, CNRA, dance orchestra.
WCAU, Philadelpia, P. (27,6m dance orchestra.
Shellenburg instrumental riche. B. (180kc), 4:30 p. m.,
Shellenburg instrumental riche. Batcher, 8:45,
Higgins and Burkle, songs 9, Kiech batcher, 8:45,
Higgins and Burkle, songs 9, Kiech batcher, 8:45,
Higgins and Burkle, songs 9, Kiech artists, 9:30,
Robert Fraser, blind gospel singer; 10, reckal; 10:15,
Eddie Malle's entertainers; 10:30, Cathay Tea Garden
dance orchestra; Burfaledians.
WEAF, New York, N. Y. (491,5m-610kc), 4-12 midnight, Gold Dust Twins, Eveready hour; Variety halfhour; orchestra; Burfaledians.
WEBJ, New York, N. Y. (272.6m-1100kc), 7 p. m.,
Karl Weiss Peasant band; 7:30, Luna's Knickerbocker
grill orchestra; 8:15, Sil Augurolla; Carrie Cohen,
pianist; 8:30, Luna's Marine band.
WFI, Philadelphia, Pa. (394.5m-760kc), 8 p. m., WEAF;
10:30, Albin's Bossert orchestra; 11, Buffalodians dance
orchestra.
WGBS, New York, N. Y. (315.6m-950kc), 7 p. m., Ar-

10:30. Albin's Bossert orchestra; 11, Buffalodians dance orchestra.

WGBS, New York, N. Y. (315.6m-950ke), 7 p. m., Arrowhead Inn concert orchestra; 8, play; 10:30, Arrowhead Inn dance erchestra.

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

WHN, New York, N. Y. (361.2m-830ke), 6:30 p. m., Everglades orchestra; 7:30, Will Oakland's chatheau; 8. Treasureland Neighbors; 9:30, Loew's 83rd Street orchestra; 10:30, Strand Roof orchestra; 11:30, Sophic Tucker's Playground; 12, Country club orchestra.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:05 p. m., Benjamin Frankiln concert orchestra; 8, reeltal, Marine studio; 8:30, Murpby's Steel Pier Minstrels; 9, Chalfonte-Haddon hall trio; 10, movie talk; 11, Million Dollar Pier orchestra; 11:30, Silver Slipper dance orchestra.

WIZ Naw York, N. Y. (454.3m-660kc), 7:05 p. m.

fonte-Haddon hall trio; 10, movie talk; 11, Million Dollar Pier orchestra; 11:30, Silver Slipper dance orchestra. WIZ, New York, N. Y. (454.3m-660kc), 7:05 p. m., Frank Dole; 7:20, Harry Leonard's Waldorf-Astoria orchestra; 8, One-up Cut-ups; 8:30, Deltah Pearl hour, WRC, WGY; 9, Pennsylvania Keystoners, WRC; 10, Cook's Southern Hemisphere Cruises, WRC, WGY; 10:45, George Olsen's Hotel Pennsylvania orchestra. WLIT, Philadelphia, Pa. (394.5m-760kc), 7:30 p. m., El Patio dance orchestra. WLWL, New York, N. Y. (288.3m-1040kc), 9:15 p. m., Compinsky brothers; 9:30, Premier male quartet. WMAK, Buffalo, N. Y. (365.m-1130kc), 10:30-11:30 p. m., musical program, Beaver Products orchestra. WMCA, New York, N. Y. (340.7m-880kc), 7 p. m., Hofbrau Haus entertainers; 9, Paul Whiteman's Picadilly players; 9:30, Columbia Park entertainers; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, McAlpin entertainers.
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., program from Sesquicentennial.
WOR, Newark, N. J. (405.2m-740kc), 6:30 p. m., Jacques Jacobs Hotel Shelton enscmble.

Eastern Standard or Central Davlight

Eastern Standard or Central Daylight Saving Time Stations

Eastern Standard or Central Daylight
Saving Time Stations

KYW. Chicago, III. (535.4m-560kc), 7 p. m., music hour, Chicago Evening American studio; 8, Congress hotel; 9-10:30, classical; 10:30-12 midnight, Carnival, WBAL, Baltimore, Md. (245.8m-1220kc), 6:30-7:30 p. m., dinner orchestra; 7:30-8, Howard R. Thatcher, organist; 8-9, Katharine Whitelock, violinist; George Bolek, pianlst; 9-10, Municipal Band of Baltimore, WBBM, Chicago, III. (225.3m-1330kc), 5-6 p. m., Eddie Hansen, organist; 8-9:30, Fort Dearborn male choir, Alemite string trio, Jaek Crawford's Alemite high pressure orchestra, "HI and Si," Lee Sims, Kay Ronayne, contralio; 9:30-10, Moss Covered melodies; 10-11:30, Lee Sims, Smith and Ford, Alemite high pressure boys, Jack Crawford's Alemite high pressure boys, Jack Crawford's Alemite high pressure boys, Jack Crawford's Alemite high pressure orchestra, Howard Osburn's Vanity Fair eafe orchestra, Tom Brown's Sax sextet, Eunice Hoefer, organist; 11:30-12 midnight, Lee Sims, Howard Osburn's Vanity Fair eafe orchestra, Jack Crawford's Alemite high pressure orchestra. WGBD, Zion, III. (344.6m-870kc), 9 p. m., McElroy saxophone quintet; McElroy Brothers quartet; Allee Peters, violinist; Florence Farrar, contralto; Erma Reymolds, soprano; trlos, duets; Miriam Hollingshead, flutist; reading.
WENR, Chicago, III. (265.3m-1130kc), 6-7 p. m., Rauland lyric trio; 8-9, Arthur Dunas popular program; 9-10, Moody Bible Institute evening hour. WGES, Chicago, III. (249.9m-1200kc), 8-9 p. m., Frank Hayes, Casey and Gervais, Tom Wheeler, Al Bernstein, Pergy O'Neill, organ; 11-1 a. m., Flo and Ray, Eshber Richards, Bobby Lee, Lew Butlet, Pat Ryan. WGHB, Clearwater, Fla. (265.3m-1130kc), 6:30-9 p. m., Campers' half hour; 9-10, Skylark dance band; 12-1 a. m., Gerald Marks and his orchestra.
WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10 p. m., Campers' half hour; 9-10, Skylark dance band; 12-1 a. m., Gerald Marks and his orchestra.
WGHB, Clearwater, Fla. (265.3m-130ko), 8:30-9 p. m., Campers' half hour; 9-10, Skylark dan

WHAR. Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio.
WJAZ. Chicago, III. (329.5m-910kc), 9-12 midnight. The Quips that Pass in the Night; Francts Rosemary Schelb, soprano; Henrietta Nolan, violinist; William Hayden, tenor.
WJJD. Mooseheart, III. (370.2m-810kc), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symphony players; Compton's 'I see by the newspaper' man; Pnimer House Victorians; 7-9, music by children of ali ages; solos. bands, etc. (9-11, Palmer House Victorians, Clarence Harper; 11:30-12:30 a. m., Settin' Up hour.

Clarence Harper; 11:36-12:36 a. m., Settin' Up hour.

WLIB, Chicago, III. (302.8m-990ke), 7:15-7:39 p. m.,

Drake concert ensemble; 7:30-8, WEAR'; 9-10. 10:10-11, 12:30-1 a. m., Charles E. Erbstein and Fred Hamm's orchestra.

WLS. Chicago, III. (344.6m-870ke), 6:30 p. m., Elsi Mae Look, organist; 6:45, Maurie Sherman's College Inn orchestra; 7, Lullaby timo, Elisle and Ralph; 7:15, University of Chicago, readings; 7:30, Al. Melgard, organist; 8:10, Maurie Sheman's College Inn orchestra; WLW, Cleninati, Ohio (422.3m-710ke), 7 p. m., "Your Veek-End Trip." Cincinnati Automobile club; 7:10, piano memories, Adelaide Apfel; 7:30, Castle Farn dinner music; 8, Crosley Burnt Corkers, Musicone male quartet; 9, Formica symphony orchestra.

WMAQ, Chicago, III. (447.5m-670ke), 6 p. m., Chicago theater organ recital; 6:30, Jack Chapman's orchestra; 8, Keith Freston book talk; 9, Madame Sturkow-Rydor, planist; 9:30, orchestra.

planist; 9:30, orchestra.

WMBB, Chicago, III. (249.9m-1200kc), 7-8 p. m., Urianon ensemble, Elizabeth Rechik, cellist; Margaret Conrad, violinist; Preston Graves, pianist; Genevleve Burnham, coloratura soprano; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, Trianon ensemble, Mable Bagley, contraito; WMBB male trio, N. G. Harte, baritone; E. S. McGready, tenor; Bob Bennett.

WOK, Chicago, III. (217.3m-1380kc), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1:30 a, m., Tearnoy's Town club orchestra; Midway Garden orchestra;

Tuesday, July 27

Pershing Palace orchestra; Katz and his Kittens' orchestra; Capitol theater program.
WOOD, Grand Rapids, Mich. (241.8m-1240kc), 9 p. m.,
"Ye olde tyme songe 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, planist;
10:05, Salvation Army hour.
WRC, Washington, D. C. (468.5m-640kc), 7 p. m., New
Willard hotel orchestra; 7:30, WJZ; 8, announced; 9,
WJZ; 9:30, announced; 10:30, Meyer Davis' Le Paradis
band.

W.J.; 9:30, announced; 10:30, Meyer Davis' Le Paradis band.
WREO, Lansing, Mich. (265.5m-1050kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 8:15, Reo Motor Car company band.
WSAI, Cincinnati, Ohio (325.9m-920kc), 7:30 p. m., musicale; 8, WEAF; 9, musicale.
WSWS, Chicago, III. (275m-1090kc), 8 p. m., orchestra; Jean St. Ann. Clinton Keithley, songs; Eulalia Kober, pianist; Delores Diazanado, Walter Luis, baritone; 10, quintet; Billy Allan Hoff, Art Becker, planist; Joe Caffey, tenor; Oscar Heather, tenor; 12 midnight, Witching hou.
WTAM, Cleveland, Ohio 389.4m-770kc), 6 p. m., State theater vaudeville; 7, WEAF; 10, studio program; 11, Euclid Reach Park orchestra.
WWJ, Detroit, Mich. (352.7m-859kc), 6 p. m., dinner concert; 7, WEAF.

Central Standard Time Stations

KFRU, Bristow, Okla. (374.8m-800ke), 6-9 p. m., Catfish string band.
KLDS, independence, Mo. (440.9m-680ke), 8 p. m.,
studio recital, Clare Thompson, leading tenor in
"Artists and Models," Edith Willis, pianist.
KMA, Shenandoah, lowa (252m-1190ke), 9-11 p. m.,
May's mandolin musicians.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6:30 p. m.,
Jacquinot Jules, organist; 7, KMOX Radio orchestra;
9:30, Bert Williams, Alma Rotter, J. L. Bischof; 10,
Aus Russland,

9:30, Bert Williams, Alma Rotter, J. L. Bischof; 10, Aus Russland.

KOIL, Council Bluffs, lowa (277.6m-1080kc), 6:03 p. m., Mono Motor Oil entertainers; 7:30, Plorence Bassler Palmer, director; 11, Hotsy-Totsy hour, Fort Werth, Caroline, 7:30 p. m., Skyline studio concert. Texas (296.9m-1010kc), 7:30 p. m., Clyde Massengale, barttone; Fforence Massengale, nianist; 9:30-11, Wagner Hawaiian trio.

WFAA, Dallas, Texas (475.9m-630kc), 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.

Joy's orchestra.

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

WHAS, Louisville, Ky. (399.8m-750kc), 7:30-9 p. m.,

WHO, Des Molnes, lowa (526m-570ke). 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., Tennessee Collegians.

WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., Gerbhardt Mexican players.

WOAW, Omaha, Nebr. (526m-570kc), 8:20 p. m., popular song period, Lillian Madson; 6:50, orchestra; 9, George H. Lee company.

WSM. Nashville, Tenn. (282.8m-1060kc), 8 p. m., Mildred King, pianist; Edward Stockman, barilone.

Mountain Standard Time Stations

FXF. Colorado Springs, Colo. (250m-1200kc), 7:30
p. m., R. Gratz Cox, free voice lesson; S. Clifford Brown, tenor; Kenneth Brown, barltone; Dorothy Doty, mezzo-soprano; Viginia Marbut, planist; 10-11:30, Bertram T. Wheatley, concert organist

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

Pacific Standard Time Stations Los Angeles, Calif. (467m-642ke), 7-8 p. m., Vir-la ballroom orchestra; 8-9, Screen Artists string tet; 9-10, Composers series program; 10-11, Pack-Radio club.

quarter, 9-10, Composers series program; 10-11, Facerard Radio club.

KFWB, Hollywood, Calif. (252m-1190kc), 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-610kc), 6-7 p. m., Skagss United Artists; 10-12 midnight, Herman Kenin's dance orchestra; Curt Kramer, planist, Hr. Los Angeles, Calif. (405.2m-740kc), 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.

gram.
(NX. Hollywood, Calif. (336.9m-890kc), 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 Cocoanut Grove dance orchestra.

Wednesday, July 28

Headliners Today

Eastern Central

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 plano period; 9. songs; 9:30, Lewis and Borelli, violin and plano; 9:45, Senator Hassenpieffer; 9:50, Maurie Patton, tenor; 10:30, Zoelms and Herscher, songs; 10:45, Frank Cook, old-time songs; 11, Artie Bittong's "Cheer-Ups."

WAF, New York, N. Y. (491.5m-610kc), 4-12 midnight, dinner musie, Synagogue service; Shinolas and the 2 in 1 Man; Davis' Saxophone octet; Ipana Troubadours; U. S. Army band, WCAP; light opera; orchestra.

enestra. VFBJ. New York, N. Y. (272.6m-1100kc), 8 p. m., Dixie Daisy entertainers; 8:45, Ben Ruty, Michael Sanio, Hawaiian gutter duets; 9, Irene Freeman, concert planist; 9:15, Joseph Zablow, baritone; 9:30, Original

planist; 9:15, Joseph Zablow, baritone; 9:30, Originan Melvillo Five.

WGBS, New York, N. Y. (315.6m-950ke), 6:30 p. m., fress 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. (5608.2m-590ke), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's badding stories.

bedtime stories.

WJZ, New York, N. Y. (454.3m-660ke), 7:05 p. m.,
Hotel Madison concert orchestra; 8. Imperial Imps;
8:30, Stadlum Philharmon't concert; 10:30, Hotel Astor

Roof orchestra.

WLIT, Philadelphia, Pa. (394.5m-760kc), 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-1040kc), 8:30 p. m.,

Hearthside Harmonizers of Lucerne.

WMAK, Buffalo, N. Y. (365.3m-1130kc), 6:30-7:15 p. m., dinner music, Hotel Lafayette; 7:30-8:15, Eastman theater orchestra; 8:15, Rochester studio, WHAM program.

program.

WMCA, New York, N. Y. (340.7m-880kc), 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 enter-

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

WNYC, New York, N. Y. (526m-570kc), 6 p. m., piano selections, woo, Philadelphia, Pa. (508.2m-590kc), 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-740kc), 9 p. m., Pryor's band; 9:45, Monterey society orchestra; 10:45, Monterey concert orchestra; 11:15, Ren Bernie Berkeley Carteret grill.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chleago, III. (535.4m-560kc), 6:30 p. m., Joska DeBabary and his orchestra; Bittie-Benson orchestra; 7. American hour; 9-10:30, classical concert, Common-wealth Edison company; 10:30-12 midnight, Congress

wealth Edison company; 10:30-12 minnight, congress earnival.

WBBM, Chicago, III. (225.3m-1330kc), 5-6 p. m., Eddie Hansen, organist; 9-10, Jack Crawford's Alemite high pressure orchestra, "Hi and Si," Kay Ronayne, controllo: Frank Porter, tenor; Lee Sims, Smith and Ford, Alemite high pressure boys, Florence Sangor, planist; 12 midnight, The Nutty club.

WENR, Chicago, III. (265.3m-f130kc), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers; 12-2 a. m., All-American Pioneers, 19-20kc), 8-9 p. m., Frank Sylvano, Louis Panlco, orchestra, organ; 11-1 a. m., frolic.

WGES, Chieago, III. (249.9m-1200kc), 8-9 p. m., Frank Sylvano, Louis Panleo, orchestra, organ; 11-1 a. m., frolic.

WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10 p. m., Caroline Lee, "The Virginia Girl" and her Spanish guitar; Frederick Charlton, one string violin, and novelty hand saw; Eldon McMullen, pianist, and novelty hand saw; Eldon McMullen, pianist, and novelty hand saw; Eldon McMullen, Dianist, 830-9, m. dinner concert; 8:30, male quartet; 9-10, WGHP ensemble; 12-1 a. m., Gerald Marks' orchestra.

WGN, Chicago, III. (302.8m-990kc), 6:45-7 p. m., Drake' concert ensemble; Blackstone string quintet; 8:30-9, musicale; 9-10, musicale; 10-10-10, Sam 'n' Henry; 10:10-10:20, Music Box; 10:20-10:30, studio program; 10:30-12:30 a. m., Penper party, WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., program, Eastman theater; 7:15, WHAM.

WIAZ, Chicago, III. (329.5m-9916c), 9-12 midnight, Mas Yeffall, violinist; Helen Jenkins, pianist; vocal selections, Alexander Nakutin studio; piano selections, Edwin J. Gemmer studio.

WJID, Mooscheart, III. (370.2m-810kc), 4:45-7 p. m., Howard L. Peterson, organist; Palmer House symptomy 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, III. (392.8m-990kc), 7-7:05 p. m., Million sing; 7:05-7:15, Old-Rashloned Almanack; 7:15-7:30, dinner music; 7:30-7:50, Pattison Coates, baritone; Edward Barry, pianist; 7:50-8, Aulid Sandy, Sesson, WEAF; 12:30-1 a. m., Alnbrose Larsen, organist.

WEA, Chicago, III. (344.6m-870kc), 6:30 p. m., Elsia Mea, Louker, Schlesse, Mea, Coaker, Schlesse,

8-8:30, WEAF; 12:30-1 a. m., Ambrose Larsen, organist.
WLS, Chicage, III. (344.6m-870kc), 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 barbershop; 9, WLS trio; 10, Medicine show with Kruger and
Dillon, Tin Pan Alley.
WLW, Cincinnati, Ohio (422.3m-710kc), 8 p. m., organ
concert, Johanna Grosse; 8:30, Stella Haugh, soprano;
9, Middletown, Ohio Ludies quartet; 9:30, the Latonia
Melody boys; 10, the Cincinnati Post "Pink of Programs"; 11, Pages Royal Elk syncopators.
WMBB, Chicage, III. (249.9m-1200kc), 7-8 p. m., Tria-

w MBB, Chicago, Ill. (249.9m-1200kc), 7-8 p. m., Tria-non duo, Monte Blunn, concert tenor; Eleanor Kapian, violinist; Davida Boyd, whistler; Preston Graves, pian-ist; 9-11, Trianon orheestra, Deli 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. III. (217,3m-1830kc), 6-7 p. m., Tip-Top Inn string ensemble concert; 10-1:30 a. m., Tearney's Town club orchestra; Kaitz and his Kittens' orchestra; Capitol theater program.

WODD, Grand Rapids, Mich. (241.8m-1240kc), 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-640kc), 5-6:20 p. m., U. S. Marine band.

WRED, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders.

WRVA, Richmond, Va. (256.3m-1170kc), 8:50 p. m., violin ensemble with soloits; 9:30, organ recitat, Robert J. Beadles, assisting soloits; 10:30, Carry Me Back to Old Virginny.

WSAI, Cincinnati, Ohio (325.9m-920kc), 6:45 p. m., ordnes; 7. WEAF; 10, Congress Playing Card string quartet.

WSWS, Chlcago, III. (275m-1090kc), 8 p. m., orches-

chimes; 7, WEAF; 10, Congress Playing Card string quartet.
WSWS, Chleago, III. (275m-1090ke), 8 p. m., orchestra; Leola Alkman, ballads; Vesta Balch, Peter Grosso; John A. McFarland, bass; 10, Terrace Gardens quintet; Paul Davis, Jack Goodwin; Georgia Gray, violinist; 12 midnight, Witching hour.
WTAM, Cleveland, Ohie (389.4m-770ke), 6:15 p. m., Hotel Cleveland orchestra; 8, Public auditorium program.

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

dance program; 9, Detroit News orchestra.

Central Standard Time Stations

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

KMA, Shenandoah, Jowa (252m-1190kc), 9-11 p. m., mixed musical program.

KMOX, St. Louis, Mo. (280.2m-1070kc), 6:30 p. m., Jacquinot Jules, organist; 7-8:30, KMOX Badio orchestra; 8:30-9:30, orchestra, 4lice Maslin, reader; 9:30-11:30, orchestra; "A Night at an Inn," Lord Dunsany.

KPRC, Housten, Texas (296.9m-1010kc), 7:30 p. m., Skyline studio concert; 8:30, Mrs. T. J. Harling, mezzo.

KPRC, Housten, Texas (296.9m-1010kc), 7:30 p. m., Skyline studio concert; 8:30, Mrs. T. J. Harling, mezzo.
KWCR, Cedar Rapids, Iowa (278m-1080kc), 9 p. m., recital.
WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30 p. m., Sorin-White orchestra; 9:30-11, Alice Patterson Duff.
WCOA, Pensacola, Fla. (222m-1350kc), 7 p. m., harmonica, ukulele, banjo and violin specialities, Howland trio; Gladys Villar, syncopated planologue; A. C. Reilly, planist; H. T. Howland, Jr., vocal and violin solos; Florida Pootwarmers dance orchestra.
WHAS, Louisville, Ky. (399.8m-750kc), 7:30-9 p. m., K. & I. orchestra, WHAS, Louisville, Ky. (399.8m-750kc), 7:30-9 p. m., midweek Radio feature.
WHO, Des Moines, Iowa (526m-570kc), 6-7 p. m., Bankers Life Little symphony orchestra; Myrthe Williams, soprano; 7-8, Philbreck and his Younker tea-room orchestra; 8-9. popular program; 9-11. dance program.
WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., Army night, Fort Sam Houston.
WOS, Jefferson City, Mo. (440.9m-680kc), 8:35 p. m., marlmba solos, the Gondoliers.
WSM. Nashville, Tenn. (282.8m-1060kc), 7 p. m., Andrew Jackson hotel trio; 8, studio program; 10, studio program.
Mountain Standard Time Stations

Mountain Standard Time Stations
KOA, Denver, Colo. (322,4m-930kc), 6:30 p. m. Brown
Palaco string orchestra; S. Scheuerman's Colorado orchestra; 8:15, violin pupils, Edith Sindlinger Wible;
KOA orchestra; Mrs. Alex W. McCoy, soprano; Iris
Ruth Gilmore, reader; James Mahaney, plantst,

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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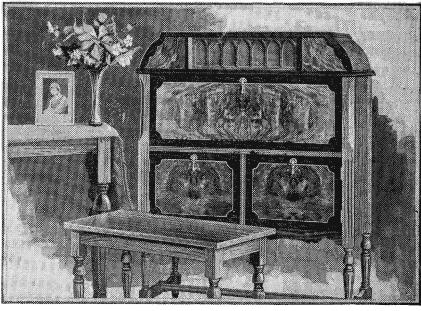
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Wednesday, July 28

KFWB, Hollywood, Callf. (AMEm-[190ke), 7:30-8 p. m., program, Corduroy Tire stores; 8-9, program, A. V. Shotwell Corp.; 9-10, studio program; 10-11, Warner Brothers frolic.

Brothers frolic.
Brothers frolic.
KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert; 8-9, Western Auto Supply company; 9-10, mu-

sicale.

KHJ. Los Angeles, Calif. (405.2m-740kc), 6:30-7:30
p. m., Uncle John and the children; 7:40, talk on astronomy; 5-10, Tower studio program.

KNX. Hellywed: Calif. (336.9m-890kc), 7-8 p. m., studio program; 8-9, program. Security Trust and Savings bank; 9-10, Motor Transit Stages program; 11. Edgewater club; 11-12 midnight, Ambassador hotel dance orchestra.

Thursday, July 29

Headliners Today

Atlantic 9 30 p. m. 8 30 7 30 6 30 5 30 WHAS (399.8m-750ke), Sigma Alpha Iota 50001ty, 9:50 8:50 7 50 6:50 5:50 9:50 8:50 7:50 6:50 WRVA (256.3m-1170kc), Country fiddlers. WRVA (256.5m-1170ke), Country nodiers, 10 9 8 7 6 WLW (422.3m-710ke), Caroli Singers, 10:30 9:30 8:30 7:30 6:30 KWWG (277.8m-1080ke), Carlos Quardiola. WFAA (475.9m-630ke), G. Haydn. Jones and other artists. 6:30 WPAA (479.911-000ac), Cooper's Hawaiiabs.
11
WCAU (249.7m-600kc), Cooper's Hawaiiabs.
12
WCAU (277.6m-1080kc), Club Cadix revue.
11:30 10:30 9:30 8:30 7:30
WBAP (475.9m-630kc), Allene Patterson Duff.

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

Atlantic or Eastern Daylight Saving Time Stations

Time Stations

CKNC, Toronto, Can. (356.9m-840kc), 8 p. m., Charles E. Bodley and his dance orchestra.

WBBR, New York, N. Y. (272.6m-1100kc), 8 p. m., Prof. Charles Rohner, violinist; Fred Twaroschk, tenor. WGAU, 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 mldnight, mldweek hymn; Meyer Davis' Park Lane orchestra; Serenaders; Hlres Voyagers; Cliquott Club Eskimos; Silvertown Cord orchestra; Buffalodians.

WFI, Philadelphia, Pa. (394.5m-760ke), 7:15 p. m., Keystone Auto club feature; 8, tecttal; 8:15-11, WEAF, WGBS, New York, N. Y. (391.5m-950kc), 6:30 p. m., music; 6:45, Arcadia orchestra; 8:30, Oliver Sayler, Tootlight and Lamplight'; 10:20, Arcadia orchestra. WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trio; 11, Follies Bergerc dance orchestra.

WNYC, New York, N. Y. (526m-570kc), 8:35 p. m., piano selections; 7:15, songs.

W00. Philadelphia, Pa. (508.2m-590ko), 7:30 p. m., Adelphia Roof Garden orchestra.

WOR, Newark, N. J. (405.2m-740ke), 6:30 p. m., Hotel Bretton Hall string quartet.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chicago, III. (535.4m-560kc), 6:30 p. m., dinner concert; 7. Chicago Evening American studio; 8-9, "Twenty Minutes of Good Reading," Rev. C. J. Pernin; 9-10:30, Edison program; 10:30-12 midnight, carnival.

nin; 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 Ronayne,
contralto; "Hi and Si," Eunice Hoefer, organist; Alemite string trio, Jack Crawford's Alemite high pressure orchestra, Howard Osburn's Vanlety Fair cafe orchestra; 9:30-10:15, Moss Covered melodies; 10:1510:30, Izaak Walton hour; 10:36-11:36, 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 Alemite high pressure orchestra,
Jack Crawford's Alemite high pressure orchestra,
bells; Richard F, Hire, violinist; duets; Mrs. Isabel
Nelson, soprano; J. L. Bishop, baritone; M. P. Barton,
tenor.

WENR Chicago III. (365.3m-1130kc), 6-7, p. m.

tenor.

WENR, Chicago, III. (265.3m-I130kc), 6-7 p. m.,
Rauland lyric trio; 8-10, All-American Pioneers.

WGES, Chicago, III. (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.

Capitol theater orchestra.

WGHP, Detroit, Mich. (270.1m-1110kc), 6 p. m., dinner concert; 10-11, WGHP Frolickers, Wintfred Huntoon, soprano; 11-12 midnight, Skylark dance band; 12-1 a. m., Gerald Marks' orchestra.

WGN, Chicago, III. (302.8m-990kc), 6:45-7 p. m., request program; 8-9, WEAE; 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, planist; 7:30-8:30, WRC; 8:39-9:30, Royal hour; 9:30-10:30, musical program; 10:30-11:30, Stephen E. Boisclair, organist.

WHAR, Atlantic City, N. J. (275m-1090kc), 8 n. m.

WHAR. Atlantic City, N. J. (275m-1090kc), 8 p. m., Seaside hotel trie; 9, concert; 11, Follies Bergere dance

orchestra.

WJAZ, Chicago, III. (329.5m-910kc), 9-12 midnight, program of classical music, Zenith artists.

WJJD, Meoseheart, III. (379.2m-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, Chicage, III. (302.8m-990ke), 7:15-8 p. m., dinner muslc; 11-11:20, Correll and Gosden; 11:20-1 a. m., Liberty studio ensemble; Fred Hamm's orchestra.

WLS, Chicago, III. (344.6m-870kc), 6:30 p. m., Elsic Mae Look, organist; 6:45, Maurie Sherman's College Inn orchestra; 7, Lullaby time, Elsic and Ralph; 7:15, Rose Sherman, violinist; Marle 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, operatio program, faculty members, Cincinnati Settlement school; 9, New Castie Apollo club; 10, Theis' Castle Farmers orchestra; 10:30, Irene Downing, Tommy Reynolds; 11, Lazarros Imperial serenaders.

WMAQ. Chicago, III. (447.5m.670kc), 6 p. m., Chicago theater organ recital; 6:30, Jack Chapman's orches-tra; 9, Flora Hardle Burditt, contralto; 9:30, Jack Chapman's orchestra.

Chapman's orchestra.

WMBB, Chicago, III. (249.9m-1200kc), 7-8 p. m., Trianon ensemble, Elizabeth Rechik, 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 Bennett.

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

WRC, Washington, D. C. (468.5m-640ke), 7 p. m., WJZ, 7:30, U. S. Marine band; 0, Royal Salon orchestra; 9:30, WRC players; 10:30, Meyer Davis' Swanee syncopators.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders; 8:15, WREO concert orchestra. WRVA, Richmond, Va. (256.3m-f170ke), 8:50 p. m., Edgeworth evening of fun, frolic, music, country fid-dlers, negro chorus, etc.; 11, Carry Me Back to Old Yirginny.

WSAI, Cincinnati, Ohio (325.9m-920kc), 7:30-10 p. m., WEAF.

WSWS, Chicago, III. (275m-1090ko), 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.

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

WMJ. 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., musi-cal 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, suspices 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,

Skyline studios.

KWWG, Brownsville, Texas (277.6m-1080kc), 8:30-8:45
p. m., Carlos Quardiola, jazz pianist; 8:45-9. Annie
Tucker, soprano; 9-9:30, P. K. McNair, tenor; Carlota Villereal, Mexican songs; 12-1 a. m., novelty
and jazz.

WBAP, Fort Worth, Texas (475.9m-630kc), 7:30-8:30
Panther-Hawaiian trlo; 9:40-11, Mineral Wells Chamber of Commerce.

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-820kc), 7-7:30 p. m.,

WHB. Kansas City, Mo. (365.6m-820ke), 7-7:30 p. m., organ concert; 8-9:30, K. C. Artists' quintet.

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, planist; John Otten, tenor; Mrs. Leo Conway, planist, KOA, Denver, Colo. (322.4m-930ko), 6:30 p. m., Brown Palace string orchestra.

Pacific Standard Time Stations

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 7-8 p. m.,
Knights of Ye Knotes; 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-1190ke), 7-7:30 p. m.,
program, O'Neai and Son; 8-9, program, McGavin
Brothers Bakeries; 9-10, Bill Hatch and his orchestra; 10-11, Warner Brothers frolie.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner
concert; 9-10, vaudeville entertainment; 10-12 midnight, Spanish ballroom.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6:30-7:30
p. m., Unele John and the children; 7:40, talk on
health; 8-10, Zoellner string quartet.

KNX, Hollywood, Calif. (336.9m-890ke), 7-8 p. m.,
program, Wright, Alexander and Greeley; 8-9, WillysOverland dealers' program; 9-10, Balboa Beach Nuts;
10-11, Edgewater club; 11-12 midnight, Ambassador
hotel dance orchestra.



Friday, July 30

Headliners Today

Atlantic Eastern Central Mountain Pacific 9:30 p. m. 8:30 7:30 6:30 5:30 KOIL (277.6m-1080ke), Lucille's Midnight syncopa-WCOA (222m-1350kc), Neapolitan serenaders. KFI (467m-642ke), Betty Patrick.

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

Atlantic or Eastern Daylight Saving Time Stations

CNRA, Moneton, Canada (322.4m-930kc), 9 p. m., French program, John Malenfant, director; 11, CNRA dance program, some sacromany, orchestra, CNRT, Toronto, Canada (356.9m-840ke), 10 p. m., Radio Raiders.

ORTT. Toronto, Canada (356.9m-840ke), 10 p. m., Radio Ralders.

WGAU, Philadelphia, Pa. (277.6m-1980ke), 6:45 p. m., Hotel. Pennsylvania concert orchestra; 7:30, Snellenburg instrumental 'trio; 8, Jackson's Whippets; 8:30, The Singing Groundhos; 8:45, Dwight Strickland, 'poeticlan'; 9, Regina Crooners; 9:15, Nasco Jolly Four; 9:45, Jack and Jill, songs; 10, recital; 10:30, Jack Myers Musical Architects.

WEAI, New York, N. Y. (491.5m-610kc), 4-12 midnight. New York france orchestra; Whittall Architects.

WEAI, New York, N. Y. (272.6m-1100kc), 7 p. m., Blue Bell serenaders; 7:30, Luna's Marine band.

WEBI, Serenaders; 7:30, Luna's Knickerbocker grill orchestra; 8, William Bisignano, accordion; 8:15, Philip Krumholtz; 8:30, Luna's Marine band.

WFI, Philadelphia, Pa. (394.5m-760kc), 3 p. m., recital, Sesnnicentennial studio.

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

WHN, New York, N. Y. (361.2m-830kc), 7 p. m., Country club orchestra; 7:30, Treasureland Neighbors; 9:30, Pallsades Amusement Park orchestra; 10, Roseland dance orchestra: 10:30, Strand Roof orchestra; 11:30, Club Alabam orchestra; 12, Silver Silpper orchestra. WIP, Philadelphia, Pa. (508.2m-590ko), 6:05 p. m., Benjamin Franklin concert orchestra; 7, Uncle Wip's beddime stories.

WIZ, New York, N. Y. (454.3m-660kc), 7:05 p. m., Coerne Olevic, 1840.

12. New York, N. Y. (454.3m-660ke), 7:05 p. m., Gerge Olsen's Hotel Pennsylvania Roof orchestra; 8. Florida Sunshine hour; 9. Sundial Shoe serenaders, Bonnie Laddies; 10:30, Harold Stern's Hotel Belle-laire Roof orchestra.

Bonnie Laddies; 10:30, Haroid Stern's Hotel Belleclaire Roof orchestra.

WLIT, Philadelphia, Pa. (394.5m-760kc), 8 p. m., recital; 8:15, Pioneer Storage Battery company entertalners; 9, Schickerling artists; 10, Morning Glory elubconcert; 10:30, Rufus and Rastus; 11, Freshman Masterplece Radio hour.

WMAIK, Buffalo, N. Y. (265.3m-1130kc), 6:30-7:15 p. m., dlinner music, Hotel Lafayette orchestra; 7:30-8:15, Buffalo Athletie club; 8:15-10:30, play, WGY players, broadcast jointly with WGY; 10:30-11:30, University Terrace serenaders, Bernard N. Hyman.

WMCA, New York, N. Y. (340.7m-880ke), 6:30 p. m., Ernie Golden and his Hotel Mealpin orchestra; 8:45, Broadway association; 9, Paul Whiteman's Picadlity players; 9:30, Klein's Serenading Shoemakers; 10. Nor-man Pearce, readings; 11, Jack Denny's orchestra; 11:30, Club Brighton orchestra; 12, McAlpin Enter-

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

O. Philadelphia, Pa. (508.2m-590ke), 7:30 p. m.,
lvania dance orchestra; 8, WOO orchestra; 9, WEAF;
25, Fox theater program; 10, WEAF; 11, Sylvania
nnce orchestra. dance orehestra.

WOR, Newark, N. J. (405.2m-740kc), 6:30 p. m., Jacques
Jacobs Hotel Shelton ensemble.

Eastern Standard or Central Daylight

Eastern Standard or Central Daylight
Saving Time Stations

KYW, Chicago, III. (535.4m.560kc), 8 p. m., Edison
program; 10:30-12 midnight. Congress carnival.

WBAL, Baltimore, Md. (245.8m.1220kc), 6:30-7:30
p. m., dinner orchestra; 7:30-8, Howard R. Thatcher,
organist; 8-9, Instrumental and vocal soloists; 9-10,
City Park Orchestra of Baltimore.

WBBM, Chicago, III. (225.3m.1330kc), 5-6 p. m., Eddle
Hansen, organist; 8-9, Safety play period; 9-10, Glee
elub harmony four, Kay Romayne, contralto; Lee Sims,
"Hi and Sl." Jack Crawford's Alemite high pressure
orchestra, Howard Osburn's Vanity Fair cafe orchestra,
Eunice Hoefer, organist.

WENR, Chicago, III. (265.3m.1130kc), 6-7 p. m.,
Rauland lyric tric; 8-9, Moody Bible Institute evening hour; 9-10, Arthur Duna popular program;
12-2 a. m., All-American Pioneers.

WGES, Chicago, III. (249.9m.1200kc), 8-9 p. m., Jole
Walsh, Frank Hayes, W. Remington Welch, organ;
Casey and Getvais; 11-1 a. m., Peggy O'Nelli, Esther
Richards.

WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10

Richards.

WGHB, Clearwater, Fla. (265.3m-1130kc), 8:30-10
p. m., Frederick Hubbard, organist.

WGHP, Detroit, Mich. (270.1m-1110kc), 8 p. m., dinner concert; 10-11, WGHP entertainers; 11-12 midnight, Skylark dance band; 12-1 a. m., Gerald Marks' orchestra.

Skylaff a talice cana, 22. Skylaff a talice cana, 22. Skylaff a talice cancert ensemble, Blackstone string quintet: 7-7.05. Million sing; Old-Fashioned Almanack; 7:15-8, Paul Ash's orchestra; 8-8:30, musical program; 8:30-0. Curfew Capers; 9-9:30, WEAF; 9:30-10, Phantom violinist; 10:10, Music Box; 10:22-11, WGN studio anamble.

violinist; 10:10, Music Box; 10:22-11, WGN studio ensemble.

WGY, Schenettady, N. Y. (379.5m-790kc), 6:35-7:15, WGY orchestra program; 7:15, "Her Great Marriage," eomedy, WGY players; 9:30, musical program.

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

WJAZ, Chicago, III. (329.5m-910kc), 9-12 midnight, The Quips that Pass in the Night; Jennie Maitland, contraito; Frank Morgan, tenor; Loring Hettler, violinist; Chez Plerre Hawaiian quartet.

WJJD, Mooseheart, III. (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, musie by children of all agos; solos, bands, etc.; 9-11, Palmer House Victorians; Jean St. Anne; 11:30-12:30 a. m., Settin' Up hour.

of all agos; solos, bands, etc.; 9-11, Failmer House Victorians; Jean St. Anne; 11:30-12:30 a. m., Settin' Up hour.

WLIB, Chicago, III. (302.8m-990kc), 11-11:20 p. m., Correll and Gosden; 11:20-1 a. m., Liberty studio ensemble; Ambrose Larsen, organist; Drake hotel dance orehestra; Fred Hamm's orchestra.

WLS, Chicago, III. (344.6m-870kc), 6:30 p. m., Elsie Mae Look, organist; 6:45, Maurie Sherman's College Inn orehestra; 7. Lullaby time, Elsie and Ralph; 7:15, Rose Sherman, violinist; Marie Ludwig, harpist; 7:30, Al Melgard, organist; 8:10, Maurie Sherman's College Inn orchestra; 8:30, Grace Wilson, contralto; 10, popular music program; 11, Ralph Emerson, organist.

WMAQ, Chicago, III. (447.5m-670kc). 6 p. m., Chicago theater organ recital; 8, Gorge Simons, tenor; 8:30, Whitney trio; 9:30, Jack Chapman's orchestra.

WMBB, Chicago, III. (249.m-1200kc), 7-8 p. m., Trianon duo; WMBB male trio; Vella Cook, contralto; N. G. Harte, baritone; E. S. McCready, tenor; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, male trio, Kreuger and Dillon, "The Banjo Barons," Cecil and Esther Ward, Hawaiian guitar duo, John Sheppard, tenor.

WOK, Chicago, III. (217.3m-1380kc), 6-7 p. m., Tip-Top Inn string ensemole concert; 10-1:30 a. m., Tearney's Town club orchestra; Katz and bis Kittens' orchestra; Capitol theater orogram.

W00D, Grand Rapids, Mich. (241.8m-1240kc), 9 p. m., classical concert; Van Wyck's instrumental quartet; 10:10. Ramona Radio Revelry, Ramona Gardens or-

10:10. Ramona Radio Reveiry, Ramona Gardens or-chestra. WREO, Lansing, Mich. (285.5m-1050kc); 6-7 p. m., Gold Standard ensemble; Speed-Wagon serenaders. WRVA, Richmond, Va. (256.3m-1170kc), 7 p. m., Hotel Richmond orchestra; 8:15, studio program; 10, Golden Gate syncopators orchestra; 11, Carry Me Back to Old

Gate symonators orchestra; 11, Carry Me Back to Old Virginny,
WSWS, Chicage, III. (275m-1090kc), 8 p. m., orchestra; East Chicago community quartet; 10, quintet; Ruth Routay, blues singer; Harry Davis; 12 midnight,
WITAM, Cleveland, Ohlo (389.4m-770kc), 6:30 p. m.,
Hotel Cleveland orchestra; 8, Euclid Beach Park orchestra; 9, WEAF, 9:30, Hawailan program; 11, Euclid Beach Park orchestra.
WWJ. Detroit, Mich. (352.7m-850kc), 6 p. m., dinner concert; 8, Detroit Nows orchestra; 9, WEAF.

Central Standard Time Stations

KFKX, Hastings, Nebr. (288.3m-1040kc), 7 p. m., song, "The Lazy Farmer"; 9, musical program, Hotel Clarke

"The Lazy Farmer"; 9, musical program, Hotel Clarke studio.

KFRU, Bristow, Okla. (374.8m-800kc), 6-9 p. m., Josephine Storey-White.

KMA, Shenandaah, Iowa (252m-1190kc), 9-11 p. m., Essex, Jowa, band.

KMOX, St. Louis, Ma, (280.2m-1070kc), 6:30 p. m., Jacquinot Jules, organist; 7, Frauk Suda, Erwin Thurunan, Buster Brown; 8, KMOX, Radio orehestra; 9, orchestra; Eva Sirwell, Bill Snyder; 9:30, Bamaiogue; 7, KMOX, St. Louis, May (277.6m-1080kc), 7:30 p. m., Lucilie's midnight syncopators; 11, Hotsy-Totsy hour.

KWOR, Cedar Rapids, Iowa (278m-1080kc), 9 p. m., emerical numeric.

Lucille's midnight syncopators; 11, Hotsy-Totsy hour. KWCR, Cedar Rapids, Iowa (278m-1080kc), 9 p. m., entertainment.
WBAP, Fort Worth. Texas (475.9m-630kc), 7:30-8 p. m. Sunday school lesson; 8-8:30, Vesper symphony; 9:30-11. Hired Hand's Little symphony.
WCOA, Pensacola, Fla. (222m-1350kc), 7 p. m., Wildcats from jazzland, Pensacola jazz band; Dr. C. J. Heinberg, violinist; Frances Keen Villar, vocalist; Harry Davis, tenor; Billie Burke, ukulele solost; Sid Nichols, planist; Frank Marchest, clarinetist; old-time love serenade in romance, Neapolitan serenaders.
WFAA, Dallas, Texas (475.9m-630kc), 6:30-7:30 p. m., Ford's Texas Trumpeters; 8:30-9:30, G. Haydin Jones. WGBF, Evansville, Ind. (236m-1270kc), 7 p. m., Lincoln-Ford orchestra program; 8. musical program.
WHAS, Louisville, KQ, (398.8m-750kc), 7:30-9 p. m., concert, James Boyer, director.
WHB, Kansas City, Mo. (365.6m-820kc), 7-8 p. m., WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Philbreck and his Younker tea-room orchestra; 8-9. musical; 11-12, orchestra.
WMC, Memphis, Tonn. (499.7m-600kc), 8:30 p. m., Hotel Gayoso orchestra; 11, Bob Miller.
WOAI, San Antonio, Texas (394.5m-760kc), 8:30 p. m., San Antonio College of Music.
WOAW, Omaha, Nebr. (326m-570kc), 6 p. m., music review; 6:30, orchestra; 9. Purltan hour.
WOS, Jefferson City, Mo. (440.9m-680kc), 7 p. m., Andres Jackson hotel trio; 8, Peabody ensemble singers; 10, Mrs. Dalsy Hoffman, planist; 10:30. F. Arthur Henkel, organist.

Mountain Standard Time Stations KFXF, Colorado Springs, Colo, (250m-1200kc), 8 p. m.

Juvenile program. KOA, Denyer, Colo. (322.4m-930kc), 6:30 p. m., Brown

Palace string orchestra; 7:30, Rev. William O. Rogers; 8, Denver Municipal band.

Pacific Standard Time Stations

Facinc Standard 1 ime Stations
KFI. Los Angeles, Calif. (467m.642kc), 7-8 D. m.,
dance music; 8-9, Acolian organ; 9-10, Harry Decker's
Hawaiians; 10-11, Packard ballad hour.
KFWB, Hollywood, Calif. (252m-f/90kc), 6-7 D. m.,
Pontiac Six dinner hour; 8-9, program, John Wright,
The Right Tailor; 9-10, studio program; 10-11, Warner Brothers frolic.
KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner
concert; 8-9, concert; 10:30-12 midnight, Hoot Owls.
KHJ, Los Angeles, Calif. (336-11), Times ellidron; 8-10, Times de
luxe program; 10-11, Clement's Super-six orchestra.
KNX. Hollywood. Calif. (336-9m-890kc), 7-8 p. m.

KNX. Hollywood, Calif. (336.9m-890ke), 7-8 p. m., Loftus Land company program; 8-9, Jell-X-Cell pro-gram; 9-10, Order of Optimistic Donuts; 10-11, Holly-wood American Legion fights; 11-12 midnight, Am-bassador hotel dance orchestra.

Saturday, July 31

Headliners Today

singers.
WMC (490.7m-600kc), Walter Moore.
12 m. 11 00 9
WOAW (526m-570kc), Organ jubilee.
1 a. m. 12 m. 11 10
WSAI (325.9m-920kc), Latonia Melody boys.

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

Atlantic or Eastern Daylight Saving

Time Stations CFCA. Toronto, Can. (356.9m-840kc), 9 p. m., CFCA's summer orchestra. WBBR, New York, N. Y. (272.6m-1100kc), 8 p. m., Juseph Bonaecorso, violinist; Forrest J. Kleinhans, barl-

tone.

WEAF, New York, N. Y. (491.5m-610ke), 4-12 midnight, orchestra; musical comedy hits; Goldman band concert; Ben Bernie's orchestra.

WGBS, New York, N. Y. (315.5m-950ke), 7:45 p. m., Areadia orchestra; 10:30, Arrowhead inn dance orchestra;

Arradia oftenestra; 10:30, Arrownead inn dance orchestra.
WHAR, Atlantic City, N. J. (275m-1090kc), 8 p. m.,
Seaside hotel trio.
WIP, Philadelphia, Pa. (508.2m-590kc), 6:05 p. m.,
Benjamin Franklin concert orchestra; 8:15, Hotel Ambassador orchestra; 9, Hotel Traymore orchestra; 9:45,
Emmet Welch's Minstrels; 10:15, Garden Pler dance
orchestra; 10:45, Ted Weems' Novelty dance orchestra; 11:30, Hotel Shelburne dance orchestra.

Televocal QUALITY

Dependable and a Technical Triumph



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.

DEALERS AND JOBBERS - WRITE US

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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—ne changes—no extra tubes or batteries, Greatest, Dollar Value in Radio Today.

OVER 300,000 SOLD

Improved Results With Tube or

Crystal Tryentirely 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 antenns. Clears up reception wonderfully impresses volume, and next isly showns. static. MONEY-BACK GUARANTEE.

Mfrs. Famous 1,500-Mi. 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 S

ST Postpaid If you are not delighted with results you get your dollar back on Savings Bank. Order today—a dollar bill will do.

STEINITE LABORATORIES. 261 Radio Bldg., ATCHISON, KANSAS

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 sensitiveness and amplification over the entire tuning range.
- It develops greater selectivity without distortion or loss of harmonics.
- 3. It assures perfect balance on all wavelengths without employing "losser" methods. 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.
- It eliminates fundamental wavelength antenna absorption.
- 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

FACTORY: N. ROCKWELL ST. Offices: 1040 Association Bldg., Chicago

Saturday, July 31

WJZ, New York, N. Y. (454.3m-660kc), 7:05 p. m. Harry Leonard's Waldorf-Astoria Roof orchestra; 8:25, Stadium Philharmonic concert, WRC; 10:30, Hotel

gram.

WMCA, New York, N. Y. (340.7m-880kc), 7 p. m.,
Tappen's orchestra; S. musical program; 11, Ernie
Golden and his Hotel McAlpin orchestra; 12, McAlpin

Gottlet and mis Hotel McAthin Gottlestra; 12, McAthin entertainers.

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

WOR, Newark, N. J. (405.2m-740ke), 6:30 p. m., Jacques Jacobs Hotel Shelton ensemble; 7:30, Oreste's Queensland orchestra; 8, Klein's Serenading Shoemakers; 9, Newark Philharmonic band; 10, Berkeley Carteret orchestra; 10:30, Monterey society orchestra; 11, Ben Bernle's orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KYW, Chirago, III. (535.4m-560ke), 7 p. m., music hour; 8, Congress hotel studio; 9-10:30, classical pro-gram; 10-11:30, classical concert; 10:30-12 midnight, cervice.

Kyw. Chicago. III. (335.4m-560ke). 7 p. m., music hour; 8. Congress hotel studic; 9-10:30. classical program; 10-11:30. classical concert; 10:30-12 midnight, carriar; 10-11:30. Fred L. Leske, bartione; Florence Sangor, planist; Alemite string trio, Fred L. Jeske, bartione; Kay Ronayne, contralic; 9:30-10. Moss Covered melodids; 10-11:30. Fred L. Jeske, bartione; Florence Sangor, planist; Smith and Ford, Alemite high pressure orchestra; Howard Osburn's Vanity Fair cafe erchestra; Eunite Hoefer, organist; Lee Sims; 11:30-2 a. m., Pullman Porters' quartet, Jack Crawford's Alemite high pressure orchestra, Waward Osburn's Vanity Fair cafe erchestra; Eunite Hoefer, organist; Lee Sims; 11:30-2 a. m., Pullman Porters' quartet, Jack Crawford's Alemite high pressure orchestra, Waward Osburn's Vanity Fair cafe orchestra, Pank Sylvano, Louis Panico, orchestra; 11-1 a. m., Bobby Lee, Ned Santry, Joe Morrison, Al Bernstein, Louis Panico, orchestra; 11-1 a. m., Bobby Lee, Ned Santry, Joe Morrison, Al Bernstein, Louis Panico, orchestra; 11-1 a. m., Bobby Lee, Ned Santry, Joe Morrison, Al Bernstein, Ward, China, China

Speed-Wagon serenaders; Merwin Seminos, Sondetentainer.

WSAI, Cineinnati, Ohio (325.9m-920ke), 8:15 p. m., news; 8:30, Bicycle Playing Card sextet; 12 midnight, Lelia LeMar, Latonia Melody Boys.

WSWS, Chiengo, III. (275m-1090kc), 8 p. m., Terraĉe Gardens orchestra; Mildred Bragdon; Matthews Sisters; 10, Terrace Gardens quintet; Joe Caffey; 12 midnight, Witching hour.

WTAM, Cleveland, Ohio (339.4m-770kc), 6 p. m., 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., Gold-man band concert.

Central Standard Time Stations

KFRU, Bristow, Okla. (374.8m-800kc), 6-9 p. m., KVOO

orchestra.

KLDS, Independence, Mo. (440.9m-680kc), 8 p. m., studio program.

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

KMOX, St. Louis, Mo. (280.2m-1070kc), 6:30 p. m., Jacquinot Jules, organist; 7. Little Red Schoolhouse; Stark Musical Bears; 8, orchestra; Porter Brown, banjoist; 9, KMOX Radio orchestra; 10, dance music.

KOIL, Council Bluffs, lowa (277.6m-1080kc), 6:30 p. m. Miss Leo Kearse, pinno selections; 7:30, Geo. C. Wahlbaritone; Francis Wiatt. soprano; Glenna Blei Heath. contralto; Myron V. Johnson, tenor; 11, Hotsy-Totsy hour.

hour. KPRC, Houston, Texas (296.9m-1010kc), 8 p. m.. Frank Tilton, boy pianist; 10, National Advertisers'

Frank Tillon, boy pianist; 10, National Aurestonates ontest.

WFAA, Dalis, Texas (475.9m.630ke), 6:30-7:30 p. m., Janes of the pianist; 11-12, Jack Gardner's orchestra, 11-12, Jack Gardner's orchestra, 11-12, Jack Gardner's orchestra, 11-12, Jack Gardner's orchestra, WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., concert. Frances Sellers, whistler.

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

WOAW, Omaha, Nebr. (526m-570ke), 6:15 p. m., orchestra; 7:30, Creighton educational period; 9, Omaha Printing company; 10, Ellis club organ jubilee. WSM, Nashville, Tenn. (282.8m-1060kc), 7 p. m., Andres Jackson hotel trio; 8, popular and barn dance

Mountain Standard Time

KFXF, Colorado Springs, Colo. (250m-1200kc), 9 p. m., Sells-McClusky first orchestra.

Pacific Standard Time Stations

KFI. Los Angeles, Calif. (467m-642kc), 7-8 p. m., Al Wesson and his orchestra; 8-9, Angelus string trio; 9-10, semi-classical hour; 10-11, Packard Radlo elub; 11-2 a. m., KFI midnight frolic.

elub; 11-2 a. m., KFI midnight frolic.

KFWB, Hollywood, Calif. (252m-1190kc), 6-7 p. m.,
Pontiac Six dinner hour; 8-9, varied studio program;
9-11, Warner Brothers frolic.

KGW. Portland Ore. (491.5m-610kc), 6-7 p. m., dinner
concert; 10-12, Indian Grill; Punch Green, pianist.

KHJ, Los Angeles, Callf. (495.2m-740kc), 6:30-7:30
p. m., Uncle John and the children; 8-10, Tower studio
feature presentation.

KNX, Hollywood, Calif. (336.9m-890kc), 7:30-8 p. m.,
studio program; 8-10, KNX feature programs; 10-11,
Ambassador hetel dance orchestra; 11-1 a. m., Edgewator.

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. The Ann Howe, who was introduced to Radio fans as a mythical introduced to Radio fans as a mythical person whose destinies as an aspirant to fame in pictures would be guided by the audience of broadcasting, flashed sensationally following her first introduction from Stations KFI and KNX in Los Angeles by Don Meany, known as a representative of film stars.

Meany's appeal that Radio assert itself in making a film star met with such

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 poularize Ann Howe that she would be sought out by picture pro-ducers to play star roles in photoplays. The new star's name was derived from all that you desire."

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?" Within a period of marks the way of the complex that the complex to the complex of weeks the unusual enterprise launched Ann Howe's behalf has reached its goal. Just recently Ann Howe, now in New York, signed a contract to star in a film series.

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. Though many screen tests were made of the young woman in Cali-fornia, these have been viewed only by production officials.

Lodge Is Seventy-Five

LONDON. — Sir Oliver Lodge, the 'Grand Old Man of Science' and pioneer of Radio, who has the gift of being per-ennially youthful, has just passed his seventy-fifth birthday. But he was almost too busy to notice it.

"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. Everyone should retire in good time, for there is no tonic like it. You want to retire before you are played out, for it gives so much more opportunity to do

Radio Communication Law

CHICAGO.—The Charles C. Linthicum 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 awarded to the author of the best essay or monograph, submitted by March 1, 1927, on "The Law of Radio Communication". The scope of the paper is to include the aspects of the subject as a problem of international law and as a problem of legislation in the United

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

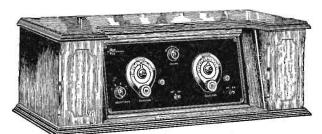
WASHINGTON, D. C .- A recent survey f Denmark showed approximately 70,000 Radio receiving sets in use, according to a report to the department of commerce from Commercial Attache H. Sorenson at Copenhagen. Copenhagen has 48,000 sets, thirty-five per cent of which are tube

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 "blooper" evil is destroyed, there is greater efficiency and at the same time greater simplicity.

Through an entirely new arrangement, the COUN-TERPHASE-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

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.

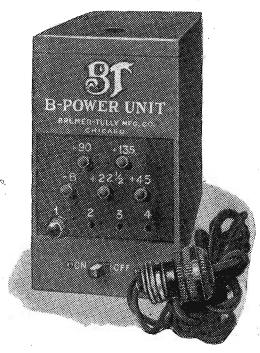
It would not be on the market if B-T did not believe it superior to any similar unit now sold.

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.

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 your two straights." 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

"Oh, Mr. Clavering," faltered Sheila.

"Oh, Mr. Clavering," faitered Shella. "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!"

'Oh, but I can't-I can't!"

"Yes I believe he will: and some day

"Yes I believe he will: and some day
"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 He's a

"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 John-ny'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 was Johnny's quick reply. can bring me,"

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

magnate on the top noor 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 the seems like it would be a case

"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

"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 when I heard loud voices. the girl's tones I knew she needed help.

FOR CLEAR, QUIET "B" POWER



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., Lofax, Inc., and other important institutions. Equipped with Solid Rubber Case, an Insurance against acid and leakage. Extra heavy glass jars. Heavy rugsed plates that number of batteries SEND NO MONEY wanted and we will ship day order is received. Extra offer: 4 batteries in series (96 volts), \$10.00. Pay expressman after examining batteries. 5 per cent discount for cash with order. Mail your order now!

expressman after examining batterles. 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. 811.25: 120 Amp. 813.25: 120 Amp. 814.00.

All equipped with Solid Rubber Case.

World Storage Battery Storage Battery for the new 1000 wst World Storage Battery Stor

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'll have been supported to the state of the state

"I know he has a personal contract with her, giving him not only the usual com mission 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 This confirms our

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

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

"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 he sent 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

"I was so worried—so worried-

"Well your troubles are over now." "No-I mean worried-afraid-for you!"

'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. strain was telling on her. The nervous

"Poor kid!" murmered 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 tounding two exact reports have come in silly little fool, but I've been mad—per-from London, England! fectly 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 his. "You—mean—you—do not—care?" "Care? More than I ever knew I could care for anyone."

"Then-"Why, there's Bobby, Shella-we must think of Bobby!"

"But Bobby won't care now. I sent him the money last nght." Johnny staggered back. "Won't care? Will you tell me for pity's sake, just what

kind of a husband he is?"
"Husband!" gasped She "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 eat-ing." 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-

from London, England!
"He who laughs last—" 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!

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!"

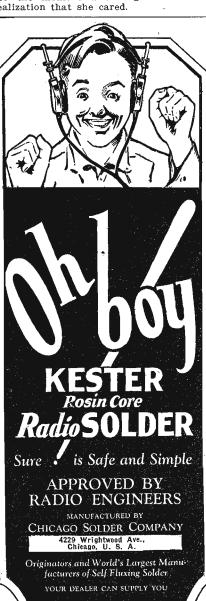
The Major is free to speak on Radio matters but he is most reticent about his other accomplishments. Quite with-out his knowledge the author visited the library and discovered in Who's Who that Jordan Lawrence Mott, 3d, received his A. B. at Harvard in 1905 about which year he began the writing of short 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 satisfac-tion or feeling of attainment he must daily experience from sending his mes-sages 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 broadcastng 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 dupli-cates 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)





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 the Gallery of Radio Stars 20 Vincent Lopez, No. 1 Pennsylvania orchestra 21 E. L. Tyson, pleasing voice at WWJ 23 Art Gillham, "The Whispering Pianist" 25 Harry Brhatat, "Dream Daddy" of WLIT 26 Correll and Gosden of "Kinky Kids Parade" Inne, at WEBH and other stations. 27 Norman Brokenshire, popular at WRC, WJZ 29 Jane Novak, Blues Singer of Twin Cities, WCCO 30 Jean Sargent, the original, now at WHT 31 Ralph Emerson, popular organist at WLS 32 Edna Adams, of KPRC 33 Pat Barnes, ravdeville announcer at WHT 38 Walter Wilson, "Uncle Bob" of KYW 40 Ray-O-Vae Twins, known country-wide 41 Art Liniek, KYW's Mrs. Schlagenhauer 42 Fred Hamm of WTAS, now WLIB, fame

- Select Your Favorites from

 1 Wendell Hall, king of ukulele ditties
 2 Graham McNamee, 1925 Gold Cup announcer
 3 Jack Little, popular wandering balladist
 4 Billy B. Van, the Sunshine Man
 5 Coon-Sunders' Orlginal "Nighthawks"
 6 George Hay, 1924 Gold Cup announcer
 8 Ford and Glenn, Lullaby Boys of WLS
 9 "Roxy" Rothafel of WEAF chain fame
 1 The. Hired Hand, famous "Substitute Announcer" of WBAP
 1 Bob Emery, Big Borther of WEEI
 13 "Billi" W. G. Hay, ex-KFKX, now of WLIB
 14 Happiness Boys, jovial singers of WEAF
 15 Lambdin Kay, "Little Colone!" of WSB
 16 Lee Fitzpatrick, "Merry Old Chief." WJR
 17 Henry Field, 1925 Gold Cup runner-up
 18 Al Carney, organ favorite at WHT

 Suitable for Framing or Placing

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 entities the holder to one photogravure selected from the Radio Digest Gallery of Radio Stars when accompanied by ten cen's to pay the cost of malling 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 cheeks 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 mangers was introduced recently, when Concert Manager Arthur Judson presented Irving Jackson, American baritone, through a chain of ten leading broad-

casting stations.

Although well known abroad where he has been singing for several years, Mr. Jackson is not yet known to his native

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. next season.

Stations which carried the broadcast were WEAF, WTAM, WSAI, WOC, KSD, WFI, WEEI, WCAE, WWJ and WCCO.

Children Greet Late Spring In Forest Cabin of WHAD

MILWAUKEE .- Spring, which has been 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 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 bluebles the southwind, raindrops and sunbells, the southwind, raindrops and sun-

shine, 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.

(Continued from page 2)

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 | |
| | H. C. Fricker, CKCL (3) | 665 | |
| | 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 bal-

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 diffi-culties, the British Broadcasting company has been unable, as intended, to broad-cast 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."

(Continued from page 6) Tis the Radio, Pete, and I have a gracular form 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 rice to make the property of the propert GOLD CUP AWARD RACE WOAI INTRIGUES VIE

gintleman after me own heart and I'm tellin' you that I'll accept with pleasure

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 silve 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 yed wellow and green strands and 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 betwane 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 rythm and thrumm 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 ex-press 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 high-power station.

without other cadences of this orecas the

days.

It was a wonderful e fom the bulletins of world ever.
Antonio Evening News to Und concert by the San Antonio Collegs of Music.
Even the Joske Story Lady varied her usual place on the program from the aftersteen to contribute an appendix of interest. usual place on the program from the alter-noon 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 see-

ing 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 Johannesberg, South Africa, telling us they had heard a concert from WOAL."

Norway Builds Superstation

LONDON. — The Norwegian govern-ment 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



if you wish to get the best out of your set.

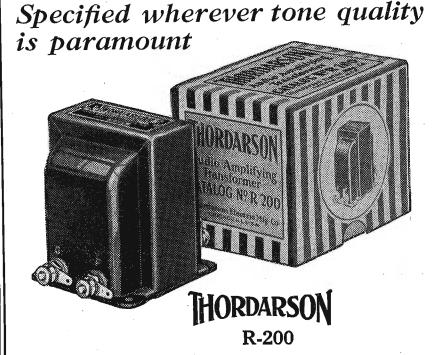
The life of tubes burned above their rated voltage is impaired. If burned below their rating, reception will be poor.

> Send for "JEWELL" circular No. 1015 which fully illustrates and describes the new "JEWELL" high resistance pinjack voltmeter—No. 135-A.

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of than July 26 gust 15 issue.

E PRINTS

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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. Bulldogs, 501 Rockwood, Dallas, Texas.

FOR SALE

Here is your opportunity to obtain a real good buy on ¼-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. 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. born 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 sliver knob and dial, 10 cents; Howard rheostats 6½, 6¾ or 25-ohm, 75 cents; Filkostats, 50 cents; set eight lettered binding posts, 25 cents; vari-able 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. of my Radio stock. 200-

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.

EIPHERD OF THE AIR

(Continued from page 4) mained. He took the ferry to Sar included in the left of the sign 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 hurch services?

"Go preach the gospel to all the earth." 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 me. The postmen brought mail from grateful listeners by the bagful. Some were tear stained from hearts that had been breaking from solitude and loneli-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 rushing day for the pastor and his fellow workmen in the little Baptist church of Somebody had raised a forbidding hand. The weekly sermons were no onger 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 difficult to understand technically. 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 stattion 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 proader 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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Why pay \$10.00 to \$15.00 for a charger when you can get this splendid GUAR-ANTEED R.B. Charger by mailing us two dollars (bills, money-order, check or stamps) plus ten cents in stamps or

or stamps) plus ten cents in stamps or coin to pay mailing costs. Charger will be sent postpaid. If not satisfied return within five days and we will refund your money. Order at once—TODAY.

R. B. SPECIALTY COMPANY

Dept. A-45 308 East Third Street 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, "Oak land the Industrial Capital of the West."

Who can really tell the whys and wherefores of outstanding events? What mysterious way performed the wonder lifting a comparitively 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

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 Tele-

phone and Telegraph company.

The chimes are broadcast daily 6 to 6:30 p. m., by KFWO on its frequency of 1420 kycs. or 211.1 meters with 250 watts power, an arrangement that has proven very satisfactory for long distance rebroadcast 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

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 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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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 con-dition except that the speaker mechanism might be readjusted so that it would have fundamental frequency varying from that of the cone.

Why is is possible for me to receive nearby stations on either of two dial set-tings? 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 harnionics 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 ssured hearing the highlights of the International Eucharistic congress by Station WHN who tied in on a wire relay from WEBH at Chicago.



45 volts, \$5.25; 90 volts, \$10.00; 112½ volts, \$12.50; 135 volts, \$14.75; 157½ 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 laboratiols. Over 3 years sold on a non-red tape 30-day trial offer with complete refund if not thoroughly satisfied. Further guaranteed 2 years. Knockdown kits at great savings. Complete "Hawley" "B" battery charger, \$2.75. Sampel 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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| Wave length | 200 | (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 | þ | | | | | |
|-------------|--------------|----------------|---|---|--|-------------|---------------------------|---|--|---|-------------|---------------------------|---|--|--|----------------------------------|----------------------------------|--|---|---|--|---|
| 202. 204 | 6 f, | ,480 ,470 | 500 10 10 500 | Leng KFXB WEHS WIBS | Big Bear Lk.,Cal. Evanston, Ili. Elizabeth, N. J. Harrisburg, Pa. | | 1,290 | 10 500 10 50 10 50 50 50 | WDBZ WHBQ WJBK WOKO KFUP KMJ I WFDF | Kellogg, Idaho Long Beach, Cal. Kingston, N. Y. Memphis, Tenn. Ypsilanti, Mich. New York, N. Y. Denver, Colo. Fresno, Calif. Flint, Mich. | 254.1 | 1,180 | 500 100 20 100 100 500 10 | WFB WFB WHB WIA: WJA WJB WNA WRE | I Ithaca, N. Y. R Baltimore, Md. Z Galesburg, Ill. C Canton, Ohio S Burlington, Ia. K Kokomo Ind. B St. P''Trsb'g, Fla. D Norman, Okla. C Coldwater, Miss. R Fall River, Mass. | 275.1 | 1,690 | 100 20 100 15 5,000 | W.A.WKY WKAP WMAC Cacc WOCL Jamest'n, WORD Batavia, I | | | |
| | 4 I, 8 I, | | 50 10 50 10 30 100 150 50 | KFXD KFXY KFYF WCBR WFRL WIBX WPDQ | San Pedro, Cal. Logan, Utah Fiagstaff, Ariz. Oxnard, Calif. Pvdc., R.I. (Ptb.) Brooklyn, N. Y. Utica, N. Y. Buffalo, N. Y. 1 Oakland, Calif. S'n F'nco, Calif. | 236.1 | 1,270 | 500 50 100 100 100 250 15 100 500 | WGBX WHBJ WJBC WQAC KFLU KF00 KFVG KWKC WB00 | C Orono, Mo. Ft. Wayne, Ind. La Salle, III. Amarillo, Tex. San Benito, Tex. Sait Lk. Cy., Utah in'pendence, Kan. C Kansas Cy., Mo. IR'hm'd H., N.Y. I Camden, N. J. | 256.3 | 3 1,170 | 100 50 500 150 500 100 500 500 | KFIO KFU KOW KRE KTN WBA WBI | Q Eau Claire, Wis. 2 Yakima, Wash. S Oakland, Calif. W W'laW'la, Wsh. Berkeley, Calif. T Museatine, Ia. X Wilkes-Ba'e, Pa. DC Gd. Rpds., Mich. H Portland, Me. | 277.6 | 1,080 | 100 250 500 1,000 100 500 100 500 | WPAK Agr. Col., N. WSBT South Bend., WSMK Dayton, Ohio WSWS Chicage, 4II. WWL New Orleans, La. KFDD Boise, Idaho KFJM Gd. Forks, N. D. KOLL C'ncil Bluffs, Ia. KUSD Vermillion, S. D. KWCR Cd. Rpds., Ia. | 49 508.2 | | |
| | 2 1, 7 1 | | 50 50 250 10 100 500 | WABW WJBA KNRC KFYO KSMR WBNY | / Wooster, Ohio Joliet, III. H'ywood, Calif: Texarkana, Tex. Santa Maria, Cal. New York, N. Y. | 238 | 1,260 | 100 500 100 100 100 50 | WFBJ WGBF WGMI WIBA WRMI WTAD | Collegev'e, Minn. Evansville, Ind. J R'hm'd H.,N.Y. Madison, Wis. J R'hm'd H., N.Y. Carthage, Ill. Trinidad, Colo. Phoenix, Ariz. | 258.8 | 5 1,160 | 500 100 100 50 1,000 | WHE WME WRA WRH WRV | D Chat'nooga, Tenn. P Johnstown, Pa. C Detroit, Mich. K Escanaba, Mich. IF Wash'g'n, D. C. /A Richmond, Va. W Carterville, Mo. L Galveston, Tex. | | | 500 500 200 100 500 100 100 10 500 | KWWG Brownsvie., Tex. WAAF Chicago, Ill. WABO Rochester, N. Y. WCAU Phila phia, Pa. WDZ Tuscola, Ill. WFBG Altoona, Pa. WGBC Memphis, Tenn. WGBU Flid. By. Sea, Fl. WHAM Rochester, N. Y. | 516.9 526 535.4 | 570 | 5,000 K. 5,000 W. 1,000 WN. 1,000 WNA. 3,500 KYW Ci. |
| 211. | . 1 | ,420 | - | WCWS WIBH WSBC KFWC | Provdee., R. I. Pawtucket, R. I. New B'df'd, Mass. Chicago, III. S. Ber'dino, Cal. Avalon, Calif. Lewisburg, Pa. | 239.9 | 1,250 | 100 10 500 200 10 3,500 10 | KFWU KFYJ KMTE WBBE WHB! WHT WRAN | J Pineville, La. Houston, Tex. Hollywood, Cal. Petoskey, Mich. St. Pet'sb'g, Fla. Chicago, Ill. V Reading, Pa. Oskaloosa, lowa | | | 250 25 500 100 500 500 | WAA WAE WHE WHE WNA | H Omaha, Neb. D Cincinnati, O. C Akron, Ohio C Rochester, N. Y. S Chicago, III. AL Omaha, Nebr. C Chicago, III. IY New York, N.Y. | 280.2 | 1,070 | 500 500 500 509 50 1,000 500 | WHDI Minneap, Minn. WLB Min'polis, Minn. WLBL Stevens Pt., Wis. WMAN Columbus, O. WOQ Kansas City, Mo. WRBC Valparaiso, Ind. KFAU Boise, Idaho KFQA St. Louis, Mo. | 247.8 | 1,210 | 750 WHA Mat 500 KFU0 St. 500 KSD St. Lo N STATIONS BY LENGTHS 75 CFKC Therold, |
| | 6 I 2 I | | 100 500 250 15 150 | WMA1 WMS0 KFWF KFXR WCLS | / Portland, Ore. Wash'ton, D. C. New York, N. Y. St. Louis, Mo. Okla. City, Okla. Joliet, III. Joliet, III. | 20010 | 1,200 | 100 100 500 10 1,000 100 100 50 | KFLX KFUN KFVI KTAB KZM WABI WCAT | Galveston, Tex. Colo. Spgs., Colo. Un'sity City, Mo. Houston, Tex. Oakland, Calif. Oakland, Calif. Bangor, Me. Rapid City, S. D. Winter Pk., Fla. | 260.7 | 7 1,150 | 500 100 100 500 1,000 100 50 250 | KFW KFW KFW WAF WAF WBA | F Okla. C., Okla. IR Sioux City, Ia. T, S.L. City, Utah 'A Ogden, Utah 'Q Haverford, Pa. tC M'd H'Is'e, Mass. AY Fargo, N. D. M N.P!'nf'd, N.J. AF Milwaukee, Wis. | | 1,060 1,050 | 500 500 500 500 1 000 500 1,000 | KMOX St. Louis, Mo. KOAC Corvallis, Ore. WNAC Boston, Mass. WOAN Lwrcebg, Tenn. WSM Nashville, Tenn. WEMC Ber. Spgs., Mich. WKAR E. Lans'g, Mich. | 267.7 291.1 296.9 312.3 | 1,030 | 20 CFMC Kingston, 500 CFRC Kingston, U 20 CFXC Nw Wstmtr., B. 500 CJYC Toronto, Ont. 500 CNRV Vancouver, B. C 15 CHWC Regina, Sask. 50 CFCY Charlotn., P.E.I. 500 CKCK Regina, Sask. 500 CKCK Regina, Can. |
| 215. | 7 f | ,390 | 50 50 10 50 50 20 100 50 | KFQW KFXJ WBBZ WHBI WHBI WHBI | San Diego, Calif. N. Bend, Wash. Colorado (Ptb.) (Portable) Chicago, III. M Chicago, III. W Phila'phia, Pa. (Portable) (Portable) | 241.8 | 1,240 | 500 500 20 50 10 50 50 50 | WGBI WHAF WOAN WSMI KFFP KFPM KFXH KSO | Scranton, Pa. Pow York, N. Y. Control, N. J. Owosso, Mich. Moberly, Mo. Greenvillo, Tex. Larinda, lowa Philadelphia, Pa. | 263 | 1,140 | 500 500 100 100 15 | WM/ WPS WSB WTA WTA | AZ Macon, Ga. C State Col., Pa. C Bay City, Mich. H Boston, Mass. R Norfolk, Va. Z Lamberty'e, N.J. R Portland, Ore. W Houghton, Mich. | 293.9 296.9 | 1,040 1,020 1,010 1,000 | 3,500 750 500 500 750 1,000 | KSL Salt Lake City, Utah | 322.4 329.5 | 930 910 | 500 CNRR RegIna, Sask. 100 CHNS Hallfax, N. S. 500 CFCT Victoria, B. C. 500 CFQC Saskatoon, Sask. 500 CHUC Saskatoon, Sask. 1,000 CJGC London, Ont. 250 CJWC Saskatoon, Sask. 5,000 CKCW Brktn. Jet., Ont. 500 CNRS Saskatoon, Sask. 500 CFCU Hamilton, Ont. |
| 217. | .3 1 | ,380 | 100 500 | WPRO WRST KFAF KFQU WFKE | 3 Ch'go, III. (Ptb.); Harrisburg, Pa, Harrisburg, Pa, Bay Shore, N. Y. San Jose, Calif. Alma, Calif. 3 Chicago, III. Chicago, III. | 243.8 | 1,230 | 100 50 100 1,000 50 500 500 | WBAV WCBF WEBG WOOT WTAF WWA | V Nashv'le, Tenn. 4 Oxford, Miss. 5 Superior, Wis. 6 Gr'd R'ds, Mich. 7 Cambridge, III. 8 Plainfield, III. 9 Missoula, Mont. 1 Missoula, Minn. | | | 1,000 500 500 250 1,500 500 500 | WAA WAA WCA WCA WCB WDA | F Shenandoah, Ia. R Portland, Ore. M Newark, N. J. R Toledo, Ohio D Canton, N. Y. R San Antonio, Tex. E New Orleans, La. G Amarillo, Tex. ty Minapls, Minn. IZ Savannah, Ga. | 302.8 305.9 309.1 315.6 | 980 | 500 1,000 500 | KUOA Fayettv'le, Ark. WPG Atlan. Cy., N.J. WGN Chicago, III. WLIB Elgin, III. KOMO Seattle, Wash. WJAR Providence, R. I. KDKA Pittsburgh, Pa. KEDM Beaumont, Tex. | 340. 7 356.9 | 880 840 | f0 CHCS Hamilton, Ont. 500 CFCA Toronto, Ont. 500 CFCA Toronto, Ont. 500 CHIC Toronto, Ont. 750 CHNC Toronto, Ont. 250 CHSC Unity, Sask. CJBC Toronto, Ont. 50 CJCD Toronto, Ont. 500 CJSC Toronto, Ont. |
| | .8 [| | 50 10 50 250 50 | WHBU WIBI WJBI WSVS KFUU KJBS | Junct'n City, Kan. Olympia, Wash. Janderson, Ind. Flushing, N. Y. Red Bank, N. J. Buffalo, N. Y. Oakland, Calif. San Fran'oo, Cal. | 245.8 | 1,220 | 50 100 100 100 50 50 | WGBE WNAX WRAE WSAZ KDYL KFJI KFJY | R Buffato, N. Y. S Freeport, N. Y. Yankton, S. D. Galesburg, III. Pomeroy, Ohlo Salt Lk. Cy., Utah Astoria, Ore. Ft. Dodge, Ia. | 265.3 | 3 1,130 | 100 250 250 250 100 100 250 | WRA WSD WWA KFF | M Miami, Fla. AV Yellow Spgs., O. A New York, N.Y. O Houghton, Mich. P Moberly, Mo. O Spokane, Wash. Y Spokane, Wash. Denver, Colo. | 319 322.4 325.9 | | 1,000 750 500 5,000 1,000 | KPSN Pasadena, Cal. WAHG Rieh'd. H. N. Y. WGBS New York, N. Y. KOIN Portland, Ore. WGR Buffalo, N. Y. WSMB N. Orleans, La. KOA Denver, Colo. WKRC Cincinnati, O. | 384.4 410.7 | 780 730 | 750 CKNC Toronto, Ont. 500 CNRT Toronto, Ont. 500 CKY Winnipeg, Man. 500 CRY Winnipeg, Man. 1,650 CFCF Montreal, Que. 10 CFCQ Vancouver, B. C. 750 CHYC Burnaby, B. C. 750 CHYC Montreal, Que. 1,200 CKAC Montreal, Que. 750 CKCD Vancouver, B. C. |
| 222 | | ,350 | 500 500 500 50 100 100 500 20 100 | WQAA KZRQ WBBY WBES WCMA WCOA WHBI | / Logansport, Ind. A Parkesburg, Pa. Manila, P. I. V Norfolk, Va. S Takoma Pk., Md. Cuiver, Ind. Pensacola, Fla. D Bellef'taine, O. F Rock Island, Ill. | | | 500 500 5,000 5,000 15 50 500 500 | KGY WAB WBA WEBI WIBR WQAI WRR | San Diego, Cal. Lacey, Wash. K Mt. Cle'ns, Mich. L Baltimore, Md. O Anderson, Ind. Welrton, W. Va. E Springfield, Vt. Dallas, Tex. I Milwaukee, Wis. | 267 | 7 1,120 | 500 1,000 500 500 100 500 | WDE WEF WGF WMA WTA | CN Chicago, III. L Wilm'gton, Del. NR Chicago, III. HB Clearwater, Fla. HB CAK Lockport, N.Y. B Fall River, Mass. Dearborn, Mich. | 329.5 333.1 336.9 | 890 | 1,500 2,000 500 1,000 500 1,000 | KWKH Shreveport, La. WJAZ Chicago, 111. WBZ Springf'd, Mass. | 434.5 | 690 | 50 CKCC Vancouver, B.C. 1,000 CNRM Montreal, Que. 500 CFAC Calgary, Alta. 1,800 CFCN Calgary, Alta. 750 CHCM Calgary, Alta. 250 CHCM Calgary, Alta. 100 CKCO Ottawa, Ont. 750 CNRC Calgary, Alta. 500 CNRO Ottawa, Ont. |
| 223 | .7 I | 1,340 | 50 20 100 10 100 50 10 | WIBU WIBU KFBL KFQP KFUR KFVS WJBG WKAN | Elkins Park, Pa. Poynette, Wis. Everett, Wash. Iowa City, Iowa Ogden, Utah C'pe Gir'd'u, Mo. I Charlotte, N. C. Laconia, N. H. | 247.8 | 1,210 | 50 100 10 100 250 10 50 1,000 | KFEC KFIF KFJB KFOX KFRE KFYR KWG | Omaha, Nebr. Beeville, Tex. Bismarck, N. D. Stockton, Callf. Auburn, Ala. | | | 500 50 100 500 25 100 | 0 KFH 0 KFF 0 WD 0 WD 0 WE 0 WF 0 WF 0 WJ | I Wichtta, Kan. IC San Fran'co, Cal. BY Charleston, S.C. AH EI Paso, Tex. RC N. Haven, Conn. BW Beloit, Wis. BM Ind'napolis, Ind. IM Cedar Ry'ds, Ia. O New Orleans, La. | 344.6 348.0 | 870 860 | 500 500 500 5,000 5,000 1,000 500 500 | KSAC Manhat'n., Kan. WKAQ S. Juan, P. R. WMCA New York, N. Y. WCBD Zion, III. WLS Chicago, III. KOB State Col., N. M. KWSC Pullman, Wash. WEEI Boston, Mass. | 499.7 516.9 CUBA 200 | 600 580 AN STA 1,500 | 250 CFCH iroquois, Ont. 100 CFCK Edmonton, Alta. 500 CJCA Edmonton, Alta. 500 CNRE Edmonton, Alta. TIONS BY WAVE LENGTHS 20 5AZ Mantanazs 10 6HS Santa Clara |
| 225 | .4 1 | 1,330 | 10 250 100 10 10 10 50 100 | WNRO WRAS KFGG KFIU KFKZ KFOE KFOR | C Gr'nsboro, N. C. A Paterson, N. J. Laporte, Ind. Boone, Iowa Juneau, Alaska Kirksville, Mo. Burlingame, Cal. David City, Nebr. | 249.9 | 3 1 , 200 | 50 100 1,000 10 1,000 100 250 | WCSO WEW WGAI W10D WMA WNB | C Birm'gham, Ala. Springfield, O. St. Louis, Mo. Laneaster, Pa. Miami, Fla. Y St. Louis, Mo. H Nw Bdfd, Mass. C Shrevepott, La. | 270. | 1 1,110 | 500 100 500 500 500 100 500 | 0 WR. 0 WSA 0 WTA | OX Knoxville, Tenn. AX Gloucester, N. J. AX Chicago, Ill. AG Worcester, Mass. BU Laramie, Wyo. J Honolulu, Hawaii AO Decatur, Ill. AR Sislht, Wis. | 352.7 360 361.2 365.6 | 833 830 | 500 1,000 500 4,000 500 500 1,000 500 | KZUY Baguio, P. I. KGO Oakland, Calif. WHN New York, N. Y. WQAO New Yk, N. Y. WDAF Kan. City, Mo. | 210 225 230 235 | 1,430 1,333 1,304 1,277 | 20 6YR Camaguey 10 2RM Havana 5 2XX Havana, Cuba 10 6DW Santa Clara 10 7AZ Camaguey 15 8FU Santiago 20 8JQ Santiago 20 2TW Havana 10 2AB Havana |
| | | | 50 500 50 1,500 150 100 10 1,000 | WAGI WBBI WDA WEBI WEBI WFBI | Hollywood, Calif. San Fran'co Cai. Noval Oak, Mich. Chicago, III. Nashville, Tenn. U.S. (Portable) Harrisburg, III. Seymour, Ind. Chicago, III. | | | 10 500 250 100 20 50 500 10 | KFXF KLS KMO KZIB WFBO WGE: WHB | (Albug'que, N. M. COL. Sp'gs, Colo. Oakland, Calif. Taeoma, Wash. Manila, P. I. C Knoxville, Tenn. S Oak Park, Ill. A Oil City, Pa. Y W. Do Pere, Wis. Philadelphia, Pa. | | | 10 500 1,50 200 50 750 10 200 | 0 WD 0 WG: 0 WG: 0 WJA 0 WJA 0 WO! 0 WO! | BE Atlanta, Ga. AN Providence, R.I. HP Detroit, Mich. ST Atlanta, Ga. IG Norfolk, Neb. IL Decatur, III. Ames, Iowa K N. Orleans, La. K Hamilton, Ohio | 370.2 374.8 379.5 384.4 | 800 7 90 | 2,000 1,000 750 500 5,000 1,000 | WEBH Chicago, III. WJJD Mooseheart, III. KTHS Hot Springs, Ark. KV00 Bristow, Okla. WGY Schenectady, N.Y. WHAZ Troy, N. Y. KJB Seattle, Wash. | 240 250 255 275 | 1,250 1,200 1,176 1,170 | 10 2LR Havana 20 7BY Camaguey 20 8AZ Santiago 50 Q2LC Havana 10 6GR Santa Clara 10 6JQ Santa Clara 100 8BY Santiago 15 2BB Havana 100 20L Havana |
| | | 1,320 1,310 | 1,000 | KFVN WDB WJBF WOW KFLV KMM | Anchorage, Alas. Fairmont, Minn. K Cleveland, Ohio I Omro, Wis. O Ft. Wayne, Ind. / Rockford, III. J Clay C'r, Nebr. | 252 | 1,190 | 100 500 100 100 100 50 | WLAI WMB WNA WNA WQA KFH | L Tulsa, Okla. B Chicago, III. B Boston, Mass. T Philadelphia, Pa. N Scranton, Pa. A Gunnison, Colo. Y St. Paul, Minn. | 272. | 6 1,100 | 100 10 5 10 25 | 0 KFA 0 KFC 0 KF 0 KFI 0 KFI 0 WB | AW Col'ge Sta, Tex. AD Phoenix, Ariz. Y Brookings, S.D. IZ Fond du Lac, Wis. (A Greeley, Colo. Z Anita, lowa AA W. Laf'otte, Ind. | 394.5 | 760 | 3,500 1,000 500 500 2,000 | WFI Philadelphia, Pa. WLIT Philadelphia, Pa. WOAI S. Antonio, Tex. | 260 270 275 280 282 295 315 320 | 1,153 1,110 1,090 1,070 1,060 1,016 952 937 | 200 6BY Santa Clara 20 2JP Havana 30 IAZ Havana 5 2JL Havana 10 2UF Havana 10 2UF Havana 100 2BY Havana 100 2BY Havana 100 2BY Havana 10 2CX Havana |
| | | | 50 100 50 50 10 250 100 | WAIT WBBI WCB! WDB! WGB! WSAI | Pasadena, Calif. Tunton, Mass. Richmend, Va. Baltimore, Md. Roanoke, Va. R Marshfeld, Wis. Grove City, Pa. Allentown, Pa. | | | 15 500 500 200 50 50 100 500 150 | KFW KMA KOCV KWU WBBS WCA WFBI WGCI | Dublin, Texas B Hollyw'd, Calif. Shenandoah, Ja. V Chickasha, Okla. C LeMars, Ja. S New Orleans, La. K Burlington, Vt. L Syracuse, N. Y. New York, N.Y. Newark, N. J. | | | 500 500 500 1,00 250 500 500 250 | 0 WE 0 WE 0 WF 0 WH 0 WIL 0 WR | BR New York, N.Y. AE Tampa, Fla. BY New York, N.Y. AM St. Cloud, Minn. BH New York, N.Y. Cleveland, Ohio. St. Louis, Mo. M Urbana, III. W Tarrytown, N.Y. BF St. Louis, Mo. For St. Louis, Mo. | 335.0 | 740 720 | 3,500 500 1,000 500 | WHT Chicage, III. KHJ Los Angeles, Cal. WJY New York, N. Y. WOR Newark, N. J. WCCO MinnSt.P., Mn. WKRC Cincinnati, O. | 320 338 350 355 360 400 | 937 890 857 845 833 750 | 100 2RK Havana 4,000 6KW Twinueu 10 2CG Havana 500 7SR Elia 400 2EP Havana 100 2OK Havana 10 5EV Colon 500 PWX Havana |
| 230 | .es 1 | 1,300 | 50 500 500 500 500 500 100 20 100 | KFDZ KFOT KFPF KQP KQW KUT WBR WCLO WHB | 3 Devils Lk., N. D. Min'polls, Minn. Wichita, Kan. Los Angeles, Cal. Portland, Ore. San Jose, Calif. Austin, Tex. Camp Lake, Wis. G Harrisburg, Pa. Montgom'y, Ala. E Webster, Mass. X Streator, Ill. | 254.1 | 1,180 | 100 50 100 100 | WRCC WRH WSRC WTAI KFEI KFLF KFW WAB WCA | D Raleigh, N. C. M Min'polis, Minn. D Hamilton, Ohio Toledo, Ohio Denver, Colo. Ft. Worth, Tex. R Albuq'que, N. M. H Chico, Calif. C Asheville, N. C. Uni. Place, Nebr. A Allentown, Pa. A Allentown, Pa. | | 1 I,0 9 0 | 50 50 50 50 50 50 50 25 50 | 0 KFE 0 KFS 0 KQV 0 WA 0 WA 0 WB | B Havre Mont. Lawrence, Kan. G Los Angeles, Cal. / Pittsburgh, Pa. BZ N. Orleans, La. FD Pt. Huron, Mich. A Harrisburg, Pa. C Charlotte, N. C. AC Sturrs, Conn. AO Battimore, Md. O Battimore, | 428.3 434.5 440.9 447.5 | 690 680 | 1,000 1,000 750 1,000 500 1,000 500 | KPO San Fran., Cal. WSB Atlanta, Ga. AT9 Fort Bragg, N.C. NAA Radio, Va. KLDS Independ., Mo. WDWF Providence.R.I. WMAF Dartmth, Mass. WOS Jefferson Cy., Mo. | 260 265 310 325 333 350 380 400 480 | 1,153 1,130 967 923 900 857 790 750 625 | N STATIONS BY WAVE LENGTHS CYF Oaxaca, Mex. CYS Mexico City, Mex. CZF Chin'u City. Mex. CZF Chin'u City. Mex. CYM Mexico City. Mex. CYX Mexico City. Mex. CZE Mexico City. Mex. CYB Mexico City. Mex. CYZ Mexico City. Mex. CYZ Mexico City. Mex. CYZ Mexico City. Mex. CYZ Mexico City. Mex. |

cy Do You Desire Most?



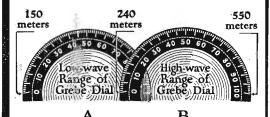


Grebe Binocular Coils

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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.



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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 Synchrophase 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.

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