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Two Dollars a Year

Vol. V

Los Angeles, August 2, 1924

No. 5

The San Francisco Radio Show

SAN FRANCISCO will be the Mecca for all radioland from August 16th to 21st inclusive. The Pacific Radio Trade Association have spared no effort or expense to make this a big success in every way. Radio manufacturers, dealers and enthusiasts will be there from all over the country. A special train carrying the eastern manufacturers with the very latest in their lines will arrive in San Francisco on the day preceding the opening and specials will run from Los Angeles and other points on the Pacific coast.

San Francisco is lucky in having a civic auditorium, second to none, in which an exposition of this kind can be held to the best advantage and all who have ever visited the city by the Golden Gate know that she knows how to entertain those who come to see her expositions and conventions. Probably no city in all the United States has such an enviable reputation for the welcome all receive there.

Let us suggest that all that have never visited the bay district, and especially those interested in radio, take this opportunity of doing so, and we can promise them that they will not be disappointed. They will not only see an exposition that will equal any in the country but will see one of the finest harbors and cities in all the world.

Special features will be on the bill for each day, and we are told that some great surprises are in store for us all; one, that we know of, that is being put on by the Radio Manufacturers' Agents Association of Southern California, will be something entirely new and never previously seen on the Pacific Coast.

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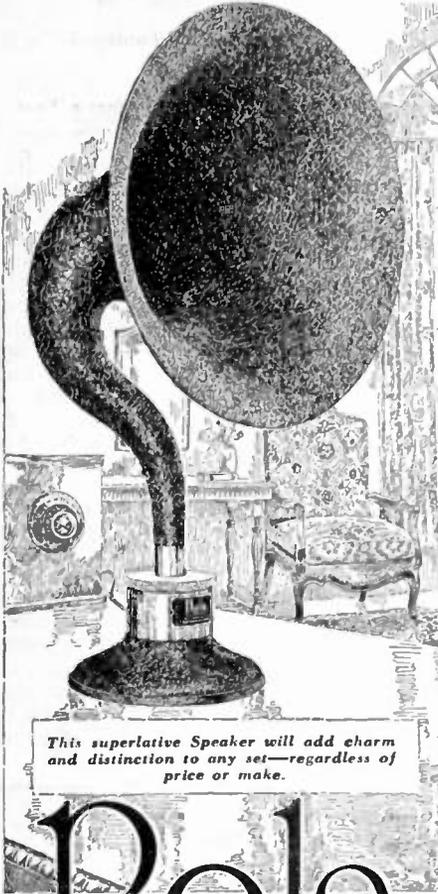
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Hoover's Aides Planning for Radio Conference

By CARL H. BUTMAN

Improved national broadcasting, interference other than radio, and significant calls for long-range amateur stations are three of the important questions which will probably come up for discussion at Secretary Hoover's Third National Radio Conference to be held in Washington soon after Sept. 15th.

Officials of the Department of Commerce are now in correspondence with their field representatives planning a program of sufficient scope to cover all problems of radio administration as it affects commercial, private and amateur radio activities. Each of the nine radio supervisors, it is understood, has been asked to submit his views on certain questions and to suggest subjects for consideration during the conference which will probably run at least three or four days. The Radio Supervisors are taking up specified questions with local radio interests in an effort to secure their views before the sessions convene in Washington. Both the Department and the Government's Radio Advisory Committee are understood to have taken up pertinent problems with the broadcasting, manufacturing, commercial, and amateur organizations, reports from which are now coming in.

One of the subjects to be discussed, which has hitherto been left to the electrical industry, is whether or not the Government should interest itself in interference other than radio proper; that is—electrical power and light interference and disturbances in the ether emanating from electrical apparatus. Electrical power and light companies have been making a study of these problems themselves. To date no report has been made to the Government, so the question of whether the Department should concern itself with such interference is to be considered.

In the interest of the international activities of our amateurs and the pride of their transmissions to foreign countries, the Government plans to open the question of how identifying call letters may be assigned this growing activity, without interfering with international regulations. Until recently amateurs never came into world-wide prominence and their call letters prefaced by a numeral, designating their national district, were considered sufficient for identification. But now that their messages carry to Europe as well as to Canada and Mexico and other neighboring countries, it is apparent that 6 KW is no longer an identification for the Cuban station; J. H. Hadley of San Francisco also uses 6 KW. Canada uses numerical calls for its amateurs and so does Mexico. The London Amateur station 2LO is well known over here and yet we have a station 2LO owned and operated by Nelson Dunham of Highland Park, N. J. These are only two instances; there are hundreds of duplicate amateur calls throughout the countries actively engaged in radio communication. Amateurs will also come in for special consideration in the proposed reallocation of wave lengths, and co-operation in the organization of a national emergency radio net.

Another important question sure to be discussed developed as a result of the Convention broadcasts is, how to encourage first-class broadcasting programs



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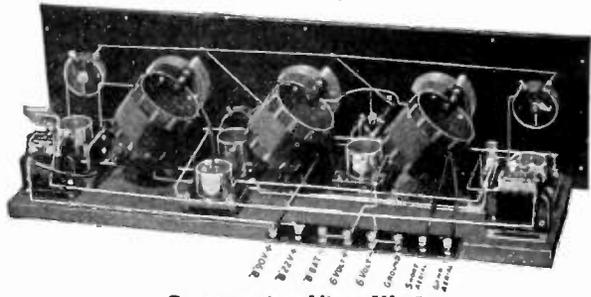
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LOS ANGELES

which will interest the whole country as well as a single community. In this connection, independent and chain broadcasting will probably come up, as it is pertinent to national broadcasting today, affecting all listeners-in, and a fundamentally problem of better broadcasting standards. "Shall Class C stations be permitted to continue on the 360-meter wave?" is another question sure to be on the program. There were 101 of these stations on June 30, most of them serving a single community with mediocre material, whereas they might better serve the radio public if transferred to either Class B or A or shut down permanently. Limits of power for broadcasters will also be discussed in connection with the question of licensing the contemplated higher-powered stations of 5 and 10 KW. Today 1000 watts, or 1 KW, is the limit of Class B stations, and information as to the practicability and desirability of higher-powered stations is desired. Limiting the number of broadcasters in a single community is another important question which may be raised. Other questions include rebroadcasting problems, such as relaying by wires, as was done during the political conventions, and retransmission on short wave lengths, especially as relates to chain circuits. The general reallocation of wave lengths to provide better working channels for all interests will be considered. This latter problem will require placing the stations nearer together, within the bands, taking over some of the wave lengths assigned to the Government exclusively or providing that these channels be shared between commercial, private and governmental broadcasters. Provision for handling land SOS calls and emergency traffic, when other communication lines are out of commission, will probably be discussed, as will the question of advertising through the ether, together with Government regulations relating to such advertising.

The exact date of the conference and the number of invitations to be issued awaits the return to Washington of Secretary Hoover, but it is understood that all organized interests will be invited to send official representatives to act as delegates, with voting power, while independent and allied interests will be welcomed at the conference, which will be open to the public. Assurance is given that no members of the large radio family will be left out, as a general representative conference, such as has already been held twice, is desired.

New Broadcasters Licensed

New York gets two new Class A stations, according to new licenses issued last week.

Call	Station	Frequency Keys.	Wave Lgth. Meters	Power Watts
WEBJ	Third Ave. Railway Co., New York	1100	273	500
WFBH	Concourse Radio Corp., New York	1100	273	500

TRANSFERRED FROM CLASS C TO CLASS A

WCAJ	Nebraska Wesleyan University, University Place, Nebraska	1060	283	500
WEAU	Davidson Bros. Co., Sioux City, Iowa	1090	275	100

TRANSFERRED FROM CLASS C TO CLASS B

WGN	The Tribune Co., Chicago, Ill.	810	270	1000
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"Southern California's Oldest Radio Jobbers"

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Wave Length and Frequency

By K. G. ORMISTON

To the average broadcast listener the terms which constitute the title of this article mean very little. He knows that a certain station advertises the fact that their wave length is 395 meters, and he knows that to receive this station he must make certain adjustments to his receiver, which process is called "tuning." Radio transmission and reception would have been more easily understood by the novice if the term "wave length" had never been used. This method of calibrating the output of a radio station was rather unfortunately chosen, and at this late date there is a movement afoot by the Bureau of Standards to change to the far more logical "frequency" measurement of expressing transmitter adjustments.

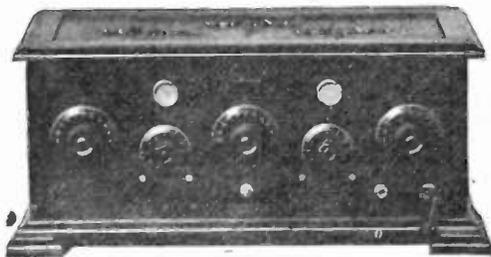
Many broadcast stations are already giving with their wave length the corresponding frequency, and we predict that it will not be long before the wave length term will be in the discard. Then, instead of saying that a station operates on a wave length of 395 meters, we will say that his frequency is 760 kilocycles. To the novice this may at first glance constitute no real improvement, but an explanation of what both terms imply will demonstrate the common sense of making the change.

First of all, radio transmission depends upon the production in an antenna system of an alternating current of certain frequencies. In other words, a current which very rapidly flows first in one direction, decreases to zero, and then surges in the opposite direction, repeating this cycle many thousands of times per second. This frequency of oscillation is determined by the electrical properties

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Neutroflex III. Price \$100.00 (Less Equipment).

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Economy, simplicity, volume and distance; but—first of all—

TONE TRUTH

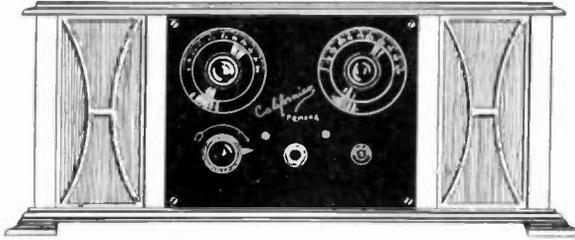
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“Radio’s Best from the Golden West”



“Consolette” Type C-1

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When a radio receiver is so simple that a child can operate it as well as a grown person, then radio has reached a stage of development that is little short of perfection.

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of the circuits of the transmitter, and when we "tune" the set, we alter these electrical properties to produce a current of the desired frequency.

It is assumed that each oscillation or cycle that takes place in the antenna system, causes one complete wave motion in the ether, the theoretical medium of transmission. The speed of the ether waves is known to be the same as that of light, roughly 186,000 miles per second. Hence, it is seen that we can calculate the length of each wave, knowing how many we are producing per second and how far they travel per second. For example, if the radio transmitter is so adjusted as to produce an oscillating current of 760,000 cycles, or 760 kilocycles per second, and the output of one second covers 186,000 miles which is 300,000,000 meters in the metric system of measurement, by dividing the distance covered by the number of waves, we obtain the actual length of each wave,—in this case 395 meters.

Hence we see that when talking wave length we are speaking of something impossible of actual measurement in itself, and arrived at only through mathematical calculations, working from the frequency as a foundation.

Therefore, how much more logical it would be to rate the output in terms of a unit which we can actually measure. We KNOW that we have tuned the transmitter to produce in its antenna system a certain definite frequency of oscillations. We ASSUME that this particular current will, in turn, cause ether waves of a certain length. We know that, in order to receive this station, we must so adjust the electrical properties of the receiving set, that oscillations of the same frequency, 760 kilocycles, may be set up in it.

Just as in tuning two violin strings or two piano strings to the same note, they must be adjusted so that each will oscillate or vibrate at the same frequency. In radio, the receiving antenna circuit, therefore, must be adjusted as to its electrical properties so that it may oscillate electrically at the same frequency as the antenna system of the broadcast station. The process of tuning, therefore, involves adjustments for certain frequencies, and the vague "wave length" need not be considered.

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\$25.00 down will put this set in your home. One year's subscription to "Radio Doings" given free with every purchase from this ad.

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Pat. Pending—U. S. A. and Foreign Countries

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Los Angeles

For Auto Or Radio

- 6 Volt 11 Plate \$10.90
- 6 Volt 13 Plate 12.90
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Mail orders, add \$.40 for packing



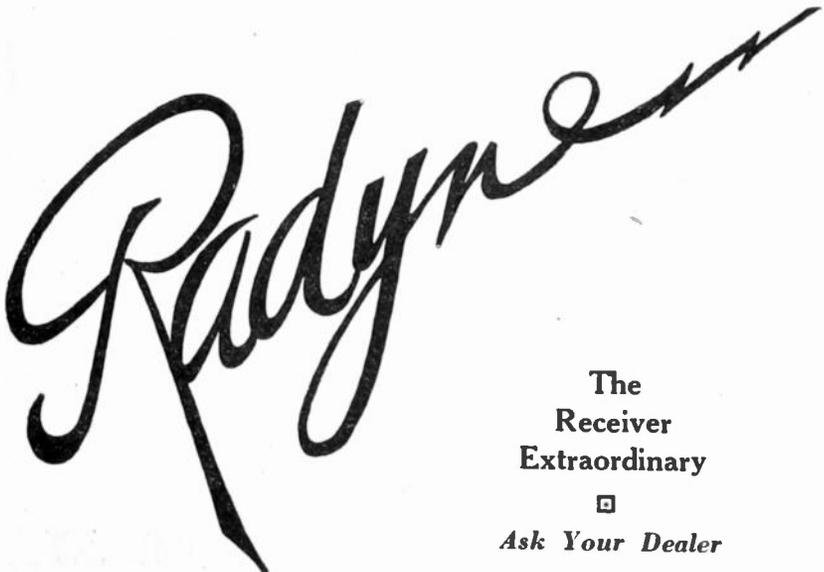
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The
Receiver
Extraordinary



Ask Your Dealer

The Wholesale Radio Electric Co.

1111 Wall St., Los Angeles

FABer 3672

General Harbord Announces New South American Radio Plans

The adoption of an entirely new and extensive program for the promotion of radio broadcasting in Latin America by American interests, following the abrogation of an agreement under which the American companies had jointly participated in South American radio business for the past three years with interests of England, France and Germany, was announced today by General J. G. Harbord, president of the Radio Corporation of America, who said the new plans gave the United States its first unrestricted opportunity to utilize fully its resources in developing radio in South America. Five of the principal countries of the continent—Argentina, Uruguay, Chile, Venezuela and Brazil—will benefit by the new plan according to General Harbord.

The program not only includes a change in the system of distributing merchandise, which enables the American company to direct its radio activities with far greater efficiency than the previously existing arrangements had permitted, but it involves in addition the introduction of a practical method for the support of broadcasting which will be first applied as a trial to the powerful broadcast station at Buenos Aires.

General Harbord explained that negotiations with other radio companies in South America had been in progress for several months, the outcome of which was the dissolution of the original local organization known as Radio Sud America. He pointed out that one radio company in England, France and Germany together with the Radio Corporation of America had originally formed this organization as the sole distributing agency for the sale of radio apparatus of English, French, German and American manufacture, but this arrangement did not prove sufficiently flexible to enable the participating members to conduct their individual business on a basis best suited to the technical and commercial development of the art and industry in South America.

"The cancellation of this former agreement marks the beginning of a new era in our South American radio activities," General Harbord said. "We are now in a position to carry the banner of the United States' leadership in radio below the Equator. We have been somewhat retarded in the South American field due to the restrictions imposed by the four-sided compromise which has been in force since the end of the war.

"One of the outstanding advantages of the plan which was made effective following our release from Radio Sud America, is a system giving direct contact with the South America radio market from New York, thus eliminating the expense incidental to carrying on operations through intermediate distributing centers. With newly organized outlets forming a part of the distribution circuits, terminating at Buenos Aires, Montevideo, Sao Paulo, Rio Janeiro, Valparaiso and other leading cities, every new development in broadcasting apparatus will be made available to South Americans practically simultaneously with their introduction in the United States.

"There is every reason to believe that Latin America will continue to show an increasing interest in radio broadcasting. Particularly is this true now that

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23 Plate Condensers	\$ 1.00	R. Transformer	\$.25
43 Plate Condensers	1.00	Coils10
Rheostats25	Fixed Condensers10
Variocouplers	1.00	Bradleystat50
Variometers	1.00	Two Tube Reflex	16.00
A. Transformer	1.00	A Tubes	3.75

D. C. PHIPPS

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Make Your Reflex a Three-Tube Wonder

PHIPPS SUPER COILS \$1.50

BUY "B" BATTERIES ONLY ONCE

WILLARD "B" Batteries are rechargeable. Their capacity is unusual, and you get volume when they are used. The voltage drop is slow, and by recharging at home you are always sure of maximum efficiency. You do not have to replace them—they last for years.

Buy Willard Batteries—You'll Get Better Results



Radio "B" Battery

Note the construction: Individual glass cells that eliminate external and internal leakage

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R. J. Tobey

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Santa Ana, Orange,
Fullerton — Orange
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Monrovia—Emil Lind-
strand.

San Bernardino—C. H.
Stickel

Whittier — Whittier
Auto Electric Co.

Pasadena—F. W. Bir-
nie

Riverside—Mission
Auto Electric Co.

Anaheim—A. Beviillard.

Torrance—Torrance
Auto Electric Co.

Glendale—E. W. Cizek
Co.

Santa Monica — Guy
Hammond

Gardena—Gardena
Battery & Ignition

San Pedro—Auto Elec-
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Los Angeles—Western Electric Co., any Radio Jobber or Dealer or any Willard Service Station.

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a way has been devised to give her the advantages of apparatus embodying all the latest improvements contributed by engineers and scientists in the United States. Such cities as Rio de Janeiro, Buenos Aires, Montevideo, Sao Paulo and Valparaiso and other centers of art and education scattered throughout the republics of Latin America are some of the great reservoirs which broadcasters may tap for a variety of program matter to be broadcast to millions of homes where the light of radio has not yet entered.

"Unlike North America, distances between cities are greater and a large percentage of the population resides in the vast farming regions. Radio broadcasting must break down these barriers of space which isolate town and village from the cities. Wire facilities, too, are not within as easy reach of the people of South America as they are in this country. Radio broadcasting will do much to supplement existing means of communication such as the telephone and the telegraph.

"It is a well known fact that Latins now look to America to help in developing radio broadcasting in their respective countries. This knowledge is based upon the events of the past years, which have conclusively proved to the world that America now leads in radio communication in all its branches."

KGO Heard in New Zealand

From C. W. Rhodehamel News Bureau, Broadcasting Station KGO
Oakland, California

Although situated on opposite sides of the earth from each other, groups of radio listeners now sway, step and glide in unison to dance music played at KGO. This is shown today by letters received at the General Electric Pacific Coast Station.

From Waimate, South Island, New Zealand, almost four thousand miles south of the equator, comes a letter of appreciation. "Every Sunday evening," writes F. D. Blackwood, "the family dances on the front lawn to KGO music reproduced by our loud speaker. We always look forward to hearing KGO, and there is a disappointed household when the atmospheres are bad." Owing to 19 hours difference in time between New Zealand and the United States, music received by the Blackwood family Sunday evening is played at KGO Saturday night.

From the Far North, within fifty miles of the Arctic Circle, another letter has been received. "We have danced to music from KGO on several occasions," writes G. H. Hillman of Candle, Alaska. "It is certainly great to have dance music carried into the Arctic." Mr. Hillman is the operator of the Candle Radio Station. "The wireless station installed here this summer," he continued, "is a new thing to people in this section. Most of them have not been outside for 25 years and it is hard for them to realize that KGO voices and music come from a distance of over four thousand miles."

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THAT WILL GUARANTEE TO MAKE YOUR NEUTRODYNE or SUPER-HETERODYNE or any other make of set HAVE QUALITY, VOLUME, SELECTIVITY, and to BRING IN DISTANCE STATIONS.

IF WE CAN'T DO THAT, THERE WILL BE NO CHARGES.

We will be glad to look your set over FREE OF CHARGE and tell you what is wrong and what it will cost to make your set perform right.

We gladly give free information or advice.

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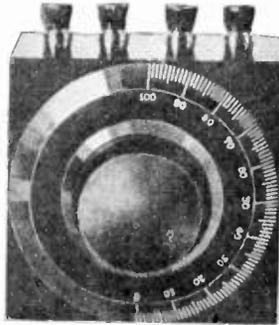
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1. No oscillation.
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6. Simple operation and construction.

A FIVE TUBE SET USING PHUSIFORMERS IS ON DISPLAY AT OUR STORE

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"BEST YET"..... Chicago Tribune

"SUPERIOR TO NEUTRODYNE"..... Literary Digest

"NEW RADIO ACHIEVEMENT".... St. Louis Post-Dispatch

"SELECTIVE & FREE FROM NOISE"..... Chicago Daily News

"TRULY REMARKABLE — CALIFORNIA AND MASSACHUSETTS STATIONS WITH GREAT VOLUME ON LOUD SPEAKER. BUILDING PHUSIFORMER SET FOR USE IN OUR OPERATING ROOM".....

..... Kansas City Star

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Facts and Fallacies About Batteries in Summertime Radio

With the greatly increased use of radio this summer, as evidenced by the Radio Section of the A. M. E. S. (Associated Manufacturers of Electrical Supplies), the need for the proper choice and best care of batteries is attaining growing importance, according to a statement issued by the Federal Telephone & Telegraph Co., Buffalo, N. Y.

"It would be difficult to overestimate the function of batteries in radio receiving apparatus," it is declared. "Batteries in the receiving set are as fuel to the engine, as vital to its operation as coal or oil are to the running of a steamship. Slight as it is, 'maintenance cost' must be considered a necessary factor in the operation of any set. When it is considered that, due to carelessness or inexperience, some sets are being operated at home at a cost as high as 30 cents an hour, whereas others of equal range and performance cost but a few cents an hour to operate, it becomes evident that batteries must be properly chosen and cared for if the receiver is to be operated economically. Here are the points with regard to batteries that the amateur should observe:

"1. Use the size battery adequate to the need of your particular set. It is possible to get results from multiple-tube apparatus with the smallest size of 'B' battery, but the experiment will be costly because of the rapid depreciation of fuel supply and the consequent need of frequent renewals. The number and type of tubes, as well as the range sought, should determine the size of battery required.

"2. Be sure that the 'B' battery is not connected to 'A' battery terminals, as the filament in the latter is designed to operate on low voltage, whereas the voltage of 'B' battery is many times that of the filament voltage rating.

"3. Use no more tubes than are sufficient for the results desired. It frequently happens that inexperienced operators will have more tubes burning than are necessary, and then de-tune to lessen the volume of sound. For local stations, for instance, the first audio stage is amply sufficient.

"4. Burn your tubes at the lowest point compatible with good reception. Excess filament current not only drains the batteries unduly, but reduces the life of the tubes. Once the rheostat is fixed at the proper point, it should not be touched again.

"5. Turn off the filament the moment you stop listening. Current is flowing as long as the filament is lit, regardless of whether or not you are receiving.

"The Battery Standards Committee of the Radio Section of the A. M. E. S., under the direction of the committee chairman, C. E. Furness, of the National Carbon Company, is now engaged in standardization or simplification work that is destined to have important consequences in the development of the art. The committee is classifying 'B' batteries with a view to fixing standard sizes and dimensions. This will enable manufacturers of self-contained sets to build standard sized compartments, so that the user of the set may install whatever make of battery he prefers.

DO YOU WANT

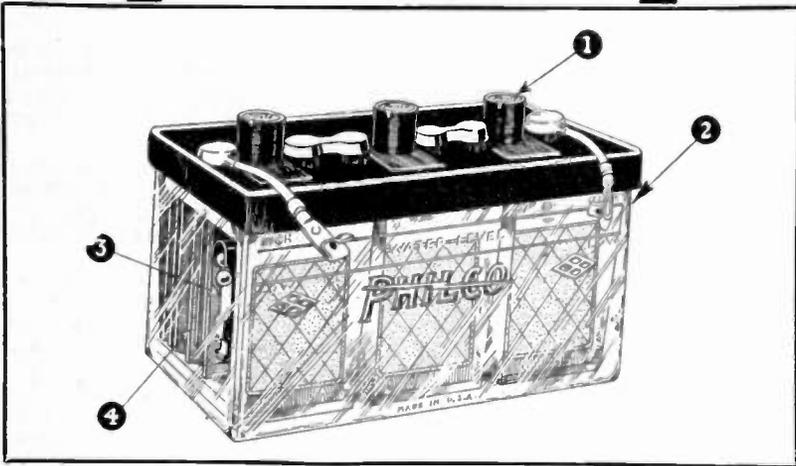
A Perfect Receiving Set?
Genuine Neutrodyne Parts?
Complete Radio Satisfaction?

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Lost Almost---A Happy Home

He brought home an ordinary storage battery and insisted upon keeping it in the living room, despite withering remarks from his wife about its unattractiveness. To cap the climax, when testing the battery with a sloppy hydrometer he spilt acid all over their best Bocara rug, completely ruining it. Better left unsaid the heated conversation that followed. *and then*

He Bought a Philco

and pointed out to her its four superior features.

- (1) The tightly-sealed covers with new vent construction, allowing only dry gasses to pass out when charging.
- (2) The good-looking, strong monobloc container of clear pressed glass.
- (3) The visible charge indicator, which showed at a glance the exact state of charge of the battery, requiring no sloppy hydrometer testing.
- (4) The extra heavy plates, separators and insulation—the reason for its two-year guarantee. Yet it cost no more.

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Also for Sale at All Philco Battery Stations

Army World Flyers Get Radio

When the Army World Flyers reached Hull, England, a complete radio transmitting and receiving set was installed on Lieut. Smith's plane, the "Chicago." This apparatus will aid the aerial voyagers on the final lap of their long trip, crossing the North Atlantic with stops at the Orkneys, Iceland, Greenland, Labrador, Newfoundland and Nova Scotia. They will be able to communicate with shore and ship stations constantly and be ready to call for aid in the event of accident.

By the time the flyers reach the coast of this continent, amateurs and fans acquainted with the code may be able to pick up messages from Smith as to his progress, or even his communications with naval vessels en route.

Capt. Harold McClellan, a radio expert of the Air Service, until recently on leave in London, installed the radio equipment at Hull. The receiver is one of the new Army super-heterodyne sets recently perfected by the Signal Corps for the Air Service. It operates on eight tubes and includes four special intermediate transformers invented by Jackson H. Pressley, Chief Engineer of the Signal Corps Radio Laboratory at Camp Alfred Vall, N. J. These transformers are very efficient, it is said, and have commercial applications. Commercial interests have recently purchased the design of the transformers from the inventor, and it is understood that they will be put on the market in the fall. Mr. Pressley has recently introduced several other revolutionary modifications and improvements in the original super-heterodyne hook-up.

The airplane transmitter is a 100-watt set with a range of about 500 miles, which should carry from the airplanes to shore stations even on the longest jumps on the home stretch. The wave length to be used is 600 meters and the call assigned to Smith's ship is WYZ.

Co-operating with the Army Air Service, the Navy has dispatched ten vessels to patrol the northern route to the United States and act as sea radio stations for communication purposes. The cruisers Richmond and Raleigh and two destroyers will operate on the route from England via the Orkneys to Iceland, five destroyers will function between Greenland and North America, and the cruiser Milwaukee will operate off Halifax, carrying an advance officer of the Army Air Service, and co-operating with destroyers through the ice-filled lanes near Greenland.

During the recent tornado in Ohio, the Navy answered its first "SOS" from land. While anchored in Put-in-Bay, the naval radio operator of the Cruiser Wilmington picked up fragments of radio calls indicating that the cities of Sandusky and Lorain were practically destroyed. In response to SOS calls the Cruiser Dubuque was ordered to Sandusky and the Wilmington to Lorain. Both these vessels aided materially in guarding the cities, furnishing medical assistance and supplies to the injured and homeless. In a letter of thanks the Governor of Ohio expressed his appreciation to Sec'y Wilbur of the Navy.

Special Ten-Day Offering on Shop Work

Repairing or building of best quality only \$1.50 per hour.
Harkness two tube sets assembled and wired, only \$11.00.

SOUTHERN CALIFORNIA RADIO CO.

2135 West Pico Street

BEacon 7439

LOS ANGELES

6-8 A. M.
PACIFIC TIME

RADIO TIME TABLE

7- 9 Mountain Time
8-10 Central Time
9-11 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00	6:00-8:30	8:30-7:00
Reynolds Radio	500	Denver	360	K L Z														
Free Press	500	Detroit	517	W C X														
Detroit News	500	Detroit	517	W W J			X											
Woodmen of W.	500	Omaha	528	W A O W		X	X											

8-10 A. M. PACIFIC TIME 9-11 Mountain Time 10-12 Central Time 11-1 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00	8:00-8:30	8:30-9:00
Echophone Radio	100	Long Beach	234	K F O N		X												
S. F. Examiner	150	San Francisco	360	K L U O		X			X	X								
Reynolds Radio	500	Denver	360	K L Z					X	X								
Star-Telegram	500	Fort Worth	476	W B A P		X	X											
News and Journal	500	Dallas	476	W F A A				X	X									
Palmer School	500	Davenport	484	W O C				X	X									
John Wanamaker	500	Philadelphia	509	W O O				X	X									
Federal Tel.	500	Buffalo	318	W G R				X	X									
Calumet B. Pdr.	500	Chicago	448	W Q J				X	X									

The Radio Sensation!

Modern "PUSH-PULL" Transformers are the recognized last word in Radio Amplification.

Here's why—

1. Perfectly balanced.
2. Capable of the greatest possible amplification.
3. Distortion reduced to a minimum.
4. Adds clarity and volume to any set.

5. Can be used in any "PUSH-PULL" circuit now available with any of the standard tubes now on the market.
6. Made with the greatest care, thoroughly tested and fully GUARANTEED.
7. Coils are wound on our own specially designed winding machines in our own factory.

Price per matched pair.....
Sold by all good dealers. Bulletin FREE on REQUEST.

\$12.50

Modern Electric Mfg Co., Toledo, O.

MODERN Long-Wave MODERN Standard
30 K. C. Transformers Audio Transformers
each \$5.00 each \$5.00

MODERN famous one-tube Reflex Audio
Transformers, each \$5.50

California Representatives

Frederic L. Tomlinson Co.

477 Pacific Bldg.
San Francisco

1113 Wall St.
Los Angeles



10-12 A. M.
PACIFIC TIME

RADIO TIME TABLE

11-1 Mountain Time
12-2 Central Time
1-3 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					10:00-10:30	10:30-11:00	11:00-11:30	11:30-12:00	10:00-10:30	10:30-11:00	11:00-11:30	11:30-12:00	10:00-10:30	10:30-11:00	11:00-11:30	11:30-12:00	10:00-10:30	10:30-11:00
L. A. Times	500	Los Angeles	395	KMJ	X	X	X											
Earl C. Anthony	500	Los Angeles	469	KFI	X	X	X											
Bible Institute	750	Los Angeles	360	KJS	X	X	X											
Angelus Temple	500	Los Angeles	278	KFSG	X	X	X											
So. Electric Co.	50	San Diego	244	KDPT	X	X												
Hale Brothers	500	San Francisco	423	KPO			X	X										
Tribune	500	Oakland	509	KLX	X	X												
Warner Bros.	250	Oakland	360	KLS					X									X
Gould	5	Stockton	360	KJQ	X	X												
Fallon & Co.	100	Santa Barbara	360	KFHJ	X	X												
Guy Greason	10	Tacoma	360	KFEJ					X	X								
Rhodes Co.	100	Seattle	455	KDZE			X	X			X			X				
First Pres. Church	750	Seattle	360	KTW		X	X											
Meier & Frank	50	Portland	360	KFEC														X
Oregonian	500	Portland	492	KGW														X
Reynolds Radio	500	Denver	283	KLZ				X										X
News and Journal	500	Dallas	476	WFAA					X	X								X
Palmer School	500	Davenport	484	WOC			X											X
Oregonian	500	Portland	492	KGW				X										X
Federal Tel. Co.	500	Buffalo	319	WGR				X										X
Sears-Roebuck	500	Chicago	345	WLS			X	X		X	X							X

IN STOCK NOW

RADIOLAS

For Every Purpose—Every Purse

Radiola Super Heterodyne

"The Last Word in Radio"

RADIOLA X

4-Tube Regenerative Receiver

RADIOLA III A

4-Tube Regenerative Receiver

RADIOLA III

2-Tube Regenerative Receiver

Immediate Deliveries

GERMAIN'S

SIXTH AND MAIN + LOS ANGELES

12-2 P. M.
PACIFIC TIME

RADIO TIME TABLE

1-3 Mountain Time
2-4 Central Time
3-5 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.		
					12 00-12 30	12 30-1 00	1 00-1 30	1 30-2 00	12 00-12 30	12 30-1 00	1 00-1 30	1 30-2 00	12 00-12 30	12 30-1 00	1 00-1 30	1 30-2 00	12 00-12 30	12 30-1 00	1 00-1 30
L. A. Times	500	Los Angeles	395	K H J	X														
Bible Institute	750	Los Angeles	360	K J S	X														
Angelus Temple	500	Los Angeles	278	K F S G	X														
So. Electric Co.	50	San Diego	244	K D P T				X											
Warner Bros.	250	San Francisco	360	K L S	X	X													
Hale Bros.	500	San Francisco	423	K P O				X											
General Elec.	1000	Oakland	312	K G O				X											
Herrold Lab'y	50	San Jose	360	K Q W				X	X										
Guy Greason	10	Tacoma	360	K F E J				X	X										
Rhodes Co.	100	Seattle	270	K D Z E				X	X										
Honolulu Star Bul.	100	Honolulu	360	K D Y X	X	X		X	X										
Honolulu Adver.	500	Honolulu	360	K G U				X	X										
Reynolds Radio	500	Denver	283	K L Z				X											
Pyles Nichols	10	Denver	360	K D Z O				X											
News and Journal	500	Dallas	476	W F A A	X	X													
Palmer School	500	Davenport	484	W O C				X	X										
Star	500	Kansas City	411	W D A F				X	X										
News	500	Detroit	517	W W J				X	X										
Radio Corp. of Am.	500	New York	455	W J Z				X	X										
Herald	1000	Calgary	420	C F A C				X	X										
Federal Tel. Co.	500	Buffalo	319	W G R	X	X	X												
Woodmen of W.	500	Omaha	526	W O A W	X	X		X	X										
Sears-Roebuck	500	Chicago	345	W L S	X	X		X	X										
Calumet B. Pdr.	500	Chicago	448	W Q J				X	X										

To Enjoy Radio You Need a Good Loud Speaker



BABY
AUDIOPHONE
Price \$12.50

Used on two or three stages of amplification with excellent results—this Baby Audiophone is ready to connect with your set—requires no auxiliary batteries to operate.

It is substantial in construction and good looking in appearance. The metal base is finished in dull gold bronze with fiber horn of same color to match.

This Loud Speaker has back of it a manufacturer's of 35 years' good reputation.

Write for Bulletin 3013-X.

Made and Sold By
THE BRISTOL CO.
WATERBURY - CONNECTICUT



BRISTOL ONE
STAGE POWER
AMPLIFIER
No "C" Battery
Required

A unit that can be used as a third stage without bowling. Instal one and give that distant station a chance to come in like locals.

PRICE \$25.00

Pacific Coast Sales
Office
Rialto Building
San Francisco

2-4 P. M.
PACIFIC TIME

RADIO TIME TABLE

3-5 Mountain Time
4-6 Central Time
5-7 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					2:00-2:30	2:30-3:00	3:00-3:30	3:30-4:00	2:00-2:30	2:30-3:00	3:00-3:30	3:30-4:00	2:00-2:30	2:30-3:00	3:00-3:30	3:30-4:00	2:00-2:30	2:30-3:00
L. A. Times	500	Los Angeles	395	KHJ					X	X				X	X			
Angelus Temple	500	Los Angeles	278	KFSG	X	X	X											
Electric Light Sup.	100	Los Angeles	360	KNX						X								X
Echophone Radio	100	Long Beach	234	KFON	X	X	X	X	X	X	X	X	X	X	X	X	X	X
So. Electrical	50	San Diego	244	KDPT			X			X			X					X
Hale Bros.	500	San Francisco	423	KPO				X	X	X	X	X	X	X	X	X	X	X
S. F. Examiner	150	San Francisco	360	KUO				X	X	X	X	X	X	X	X	X	X	X
Tribune	500	Oakland	509	KLX					X				X					X
General Elec. Co.	1000	Oakland	312	KGO			X		X			X						
R. H. Horn	50	San Luis Obispo	212	KFBE		X	X											
Portable Wireless	100	Stockton	360	KWG	X	X												
Kimball-Upson	100	Sacramento	283	KFBK				X	X		X	X		X	X		X	X
First Pres. Church	750	Seattle	360	KTW		X	X											
Post-Intelligencer	100	Seattle	270	KFJC				X	X	X	X	X	X	X	X	X	X	X
Rhodes Co.	100	Seattle	270	KDZE			X	X	X	X	X	X	X	X	X	X	X	X
Oregonian	500	Portland	492	KGW				X	X	X	X	X	X	X	X	X	X	X
Deseret News	500	Salt Lake City	380	KZLN				X	X			X	X		X	X		X
Reynolds Radio	500	Denver	283	KLZ				X		X								
Honolulu Adver.	500	Honolulu	360	KGU			X	X					X	X			X	X
Star-Telegram	500	Fort Worth	476	WBAP		X	X											
Palmer School	500	Davenport	484	WOC				X		X								X
Daily News	500	Chicago	448	WMAQ				X		X	X	X	X	X	X	X	X	X
Star	500	Kansas City	411	WDAF			X	X	X	X	X	X	X	X	X	X	X	X
Free Press	500	Detroit	517	WCX	X	X												
News	500	Detroit	517	WJW				X	X	X	X	X	X	X	X	X	X	X
Drake Hotel	1000	Chicago	360	WDAP				X	X	X	X	X	X	X	X	X	X	X
Radio Cor. of Am.	500	New York	455	WJZ			X	X	X	X	X	X	X	X	X	X	X	X
Herald	1000	Calgary	420	CFAC			X	X	X	X	X	X	X	X	X	X	X	X
Federal Tel. Co.	500	Buffalo	319	WGR				X	X									
Westinghouse	1000	Pittsburgh	326	KDKA			X											
Westinghouse	1000	Springfield	337	WBZ		X												
Sears-Roebuck	500	Chicago	345	WLS					X				X				X	

Owing to "daylight saving" time now in force in the East, all stations in East should show one hour earlier.

Murdock Radio Head Phones "Standard Since 1914"

Only
50¢

California's WONDER CRYSTAL



Fully Guaranteed. Your money refunded if not satisfactory. Ask your Dealer, or write direct to us.

We have an interesting proposition for Jobbers and Dealers. Write today.

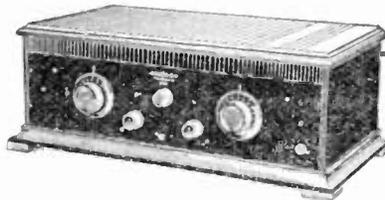
WILMAT COMPANY · 824 · UNION LEAGUE BLDG.
LOS ANGELES

CROSLEY

BETTER---COST LESS

TRIRDYN 3R3

The best three-tube set that can be bought at any price. Try it.
Price \$71.50



TRIRDYN SPECIAL
Price \$82.50

Warren's "A. C." Attachment

The Perfect Filament Supply Transformer. For use in your Reflex sets. Will operate your radio tubes from any electric light socket. Replaces your storage batteries. Costs but a few cents per month to operate. Price \$9.00.

We have two-tube sets with attachment installed.

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411 South San Pedro St.

Faber 4487—TRinity 1350

Los Angeles, Cal.

482 South Fair Oaks Ave.

Fair Oaks 1578

Pasadena, Cal.

WHOLESALE ONLY

4-6 P. M.
PACIFIC TIME

RADIO TIME TABLE

5-7 Mountain Time
6-8 Central Time
7-9 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.		
					4 00-4 30	4 30-5 00	5 00-5 30	5 30-6 00	4 00-4 30	4 30-5 00	5 00-5 30	5 30-6 00	4 00-4 30	4 30-5 00	5 00-5 30	5 30-6 00	4 00-4 30	4 30-5 00	5 00-5 30
E. C. Anthony	500	Los Angeles	469	K F I	X	X													
L. A. Herald	500	Los Angeles	469	Herald						X									
L. A. Examiner	500	Los Angeles	469	Exam'n'r				X											
Angelus Temple	500	Los Angeles	278	K F S G					X										
Echophone Radio	100	Long Beach	234	K F S O N	X					X								X	
General Electric		Oakland	312	K G O			X	X	X	X	X	X	X	X	X	X	X	X	
Hale Bros	500	San Francisco	423	K P O			X	X	X	X	X	X	X	X	X	X	X	X	
Oakland Tribune	500	Oakland	509	K L X			X		X										
S. F. Examiner	150	San Francisco	360	K U O				X	X							X	X		
Maxwell Elec.	50	Berkeley	278	K R E														X	
Portable Wireless	100	Stockton	360	K W G			X	X	X	X	X	X	X	X	X	X	X	X	
Gould	5	Stockton	360	K J O					X	X								X	
Radio Den	10	Santa Ana	268	K F A W				X			X		X					X	
Nielson Radio Co.	10	Phoenix	238	K F C B					X	X						X	X		
Post Intelligencer	100	Seattle	270	K F J C			X		X		X		X		X			X	
Star Electric	50	Seattle	283	K F H R			X	X	X	X	X	X	X	X	X	X	X	X	
First Pres. Church	750	Seattle	360	K T W	X	X												X	
Northwest Radio	50	Seattle	283	K J R			X	X	X	X	X	X	X	X	X	X	X	X	
Meier & Frank	50	Portland	248	K F E C			X	X	X	X	X	X	X	X	X	X	X	X	
Hallock & Watson	50	Portland	360	K G G			X	X	X	X	X	X	X	X	X	X	X	X	
Pyle & Nichols	10	Denver	360	K D Z Q		X	X		X	X	X	X	X	X	X	X	X	X	
Star-Telegram	500	Fort Worth	478	W B A P					X			X						X	
News and Journal	500	Dallas	478	W F A A			X	X	X	X	X	X	X	X	X	X	X	X	
Southern Egr. Exp.	500	San Antonio	385	W O A I														X	
Palmer School	500	Davenport	484	W O C	X	X	X	X	X		X	X	X	X	X	X	X	X	
Post Dispatch	500	St. Louis	548	K S D							X	X	X	X	X	X	X	X	
Daily News	500	Chicago	448	W M A O						X	X	X	X	X	X	X	X	X	
Drake Hotel	500	Chicago	380	W D A P						X	X	X	X	X	X	X	X	X	
Free Press	500	Detroit	517	W C X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
News	500	Detroit	517	W W J	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Star	500	Kansas City	411	W D A F	X	X			X	X	X	X	X	X	X	X	X	X	
Crosley Mfg. Co.	500	Cincinnati	423	W L Z					X	X	X	X	X	X	X	X	X	X	
Radio Cor. of Am	500	New York	455	W J Z		X	X		X	X	X	X	X	X	X	X	X	X	
John Wanamaker	500	Philadelphia	509	W O O					X	X	X	X	X	X	X	X	X	X	
Federal Tel. Co.	500	Buffalo	319	W G R					X	X	X	X	X	X	X	X	X	X	
Westinghouse	1000	Pittsburgh	328	K D K A	X	X			X	X	X	X	X	X	X	X	X	X	
Westinghouse	1000	Springfield	337	W B Z					X	X	X	X	X	X	X	X	X	X	
Westinghouse	1000	Chicago	538	K Y W		X	X		X	X	X	X	X	X	X	X	X	X	
Woodmen of W.	500	Omaha	528	W O A W	X	X			X	X								X	
Willard Battery	1000	Cleveland	390	W T A M							X	X	X	X	X	X	X	X	
Canadian Nat. Ry.		Ottawa	435	C K C H							X	X	X	X	X	X	X	X	
Sears-Roebuck	500	Chicago	345	W L S			X	X	X	X	X	X	X	X	X	X	X	X	
Calumet B. Pdr.	500	Chicago	448	W Q J					X	X	X	X	X	X	X	X	X	X	

WE KNOW OUR STUFF

If you want your Neutrodyne repaired properly, bring it to us. We repair all types of radio sets
Radio sets built to order—by men who know your wants and can give you expert workmanship and prompt service.

STANRAD

2-Tube Reflex Set, complete with Phonograph attachment, \$58.50; or with horn, \$68.58. 2-Tube Set wired, \$29.50

Radio Batteries charged in eight hours, 75c. Stanrad Bakelite Coils, per set, \$2.00

Call TUCKER 2433

We fix it or no charge. Sets called for and delivered.

1048 South Olive St.

STANDARD RADIO

Los Angeles

Ask for—



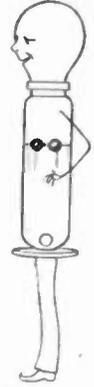
The Chaslyn Boy

MR. SINK-OR-SWIM

Now

75c

The Easiest Hydrometer to Read



Sink or Swim
The Chaslyn Boy

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Los Angeles

IMPORTANT!

Use only the Best parts obtainable in building that set of your own.

We carry the Best parts manufactured.

We SERVICE All Makes of Radiola Receivers

COMPLETE LINE OF RADIOLA SETS ALWAYS ON HAND

Howland & Dewey Co.

EASTMAN KODAK CO.

510 South Broadway

Los Angeles, Calif.

Phone: TRinity 0746

6-8 P. M.
PACIFIC TIME

RADIO TIME TABLE

7- 9 Mountain Time
8-10 Central Time
9-11 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					6:00-6:30	6:30-7:00	7:00-7:30	7:30-8:00	6:00-6:30	6:30-7:00	7:00-7:30	7:30-8:00	6:00-6:30	6:30-7:00	7:00-7:30	7:30-8:00	6:00-6:30	6:30-7:00
Bible Institute	750	Los Angeles	360	KJJS	X	X												
L. A. Times	500	Los Angeles	395	KHJ	X	X			X	X	X	X	X	X	X	X	X	X
E. C. Anthony	500	Los Angeles	469	KFI		X	X											
Angelus Temple	500	Los Angeles	278	KFSG					X	X	X	X	X	X	X	X	X	X
Electric Light Sup.	100	Los Angeles	360	KNX														
Echophone Radio	100	Long Beach	234	KFON				X	X		X	X		X	X		X	X
Hale Brothers	500	San Francisco	423	KPO				X	X	X	X	X	X	X	X	X	X	X
S. F. Examiner	150	San Francisco	360	KUO				X	X	X	X	X	X	X	X	X	X	X
Maxwell Electric	50	Berkeley	278	KRE				X	X									
Tribune	500	Oakland	509	KLX					X		X							
General Electric	1000	Oakland	312	KGO					X		X			X				
Kimball & Upson	100	Sacramento	283	KFBK				X	X	X	X	X	X	X	X	X	X	X
Fallon & Co.	100	Santa Barbara	360	KFHJ				X	X	X	X	X	X	X	X	X	X	X
Radio Den	10	Santa Ana	268	KFAV				X	X	X	X	X	X	X	X	X	X	X
Southern Elect.	50	San Diego	244	KDPT					X	X								
Nelson Radio Sup	10	Phoenix	238	KFCB		X			X		X		X		X		X	
McArthur Bros.	100	Phoenix	360	KFAD				X	X		X		X		X		X	
Love Elect. Co.	10	Tacoma	360	KMO				X	X	X	X	X	X	X	X	X	X	X
Mullens Elect. Co.	50	Tacoma	252	KGB				X	X	X	X	X	X	X	X	X	X	X
N. W. Radio Ser.	50	Seattle	283	KJR			X		X		X		X		X		X	
Excel. Motor Cy.	100	Seattle	360	KHQ				X	X	X	X	X	X	X	X	X	X	X
First Pres. Church	750	Seattle	360	KTW		X	X		X		X		X		X		X	
Star Electric	50	Seattle	283	KFHR				X	X	X	X	X	X	X	X	X	X	X
Oregonian	500	Portland	492	KGW	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hallock & Watson	50	Portland	360	KGG	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Meier & Frank	50	Portland	248	KFEC				X	X		X		X		X		X	
Apple Cy. Rad. Cib.	10	Hood River	360	KOP				X	X		X		X		X		X	
Adler's Music Store	5	Baker, Ore.	360	KFDA		X	X		X		X		X		X		X	
Boise High School	150	Boise, Ida.	270	KFAU				X	X		X		X		X		X	
Bunkerhill-Sul. Co.	10	Kellogg, Ida.	360	KFEY			X		X		X		X		X		X	
Telegram	100	Salt Lake	360	KDYL			X	X	X	X	X	X	X	X	X	X	X	X
Reynold's Radio	500	Denver	283	KLZ			X		X		X		X		X		X	
Western Radio	50	Denver	360	KFAF			X	X	X	X	X	X	X	X	X	X	X	X
Fitzsimmons Hospital		Denver	542	AA 3			X	X	X	X	X	X	X	X	X	X	X	X
Westinghouse El.	1000	Hastings, Neb.	341	KFKX			X		X		X		X		X		X	
Star-Telegram	500	Fort Worth	476	WBAP			X	X	X	X	X	X	X	X	X	X	X	X
News and Journal	500	Dallas	476	WFAP			X	X	X	X	X	X	X	X	X	X	X	X
Palmer School	500	Davenport	484	WOC	X	X	X	X	X	X	X	X	X	X	X	X	X	X
W. O. W.	500	Omaha	526	WOAW	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Daily News	500	Chicago	449	WMAQ			X	X	X	X	X	X	X	X	X	X	X	X
Post Dispatch	500	St. Louis	546	KSD		X	X	X	X	X	X	X	X	X	X	X	X	X
Westinghouse	1000	Chicago	536	KYW			X	X	X	X	X	X	X	X	X	X	X	X
Sweeney School	500	Kansas City	411	WHB			X	X	X	X	X	X	X	X	X	X	X	X
Star	500	Kansas City	411	WDAF			X	X	X	X	X	X	X	X	X	X	X	X
Drake Hotel	1000	Chicago	390	WDAP	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Crosley Mfg. Co.	500	Cincinnati	423	WLW	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Albertan Pub. Co.	250	Calgary, Can.	410	CHBC	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Detroit Free Press	500	Detroit	517	WCX			X	X	X	X	X	X	X	X	X	X	X	X
Radio Cor. of Am.	500	New York	455	WJZ	X	X	X	X	X	X	X	X	X	X	X	X	X	X
John Wanamaker	500	Philadelphia	509	WOO	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Federal Tel. Co.	500	Buffalo	319	WGR	X	X	X	X	X	X	X	X	X	X	X	X	X	X
El Buen Tono	500	Mexico City	425	CYB			X	X	X	X	X	X	X	X	X	X	X	X
El Universal	500	Mexico City	500	CYL			X	X	X	X	X	X	X	X	X	X	X	X
Willard Battery	1000	Cleveland	390	WTAM			X	X	X	X	X	X	X	X	X	X	X	X
Westinghouse	1000	Pittsburgh	328	KDKA			X	X	X	X	X	X	X	X	X	X	X	X
Canadian Nat. Ry.		Ottawa	435	CKCH			X	X	X	X	X	X	X	X	X	X	X	X
Chamber of Com.	50	El Paso	268	WDAH			X	X	X	X	X	X	X	X	X	X	X	X
Calumet B. Pdr.	500	Chicago	449	WQJ	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Owing to "daylight saving" time now in force in the East, all stations in East should show one hour earlier.

Notice to the Trade

Our Pacific Coast Factory is now open at 239 South Los Angeles St., under the direction of EMMETT R. PATTERSON, formerly of the Patterson Electric Company, who has been retailing WORKRITE Neutrodyne sets.

Mr. Patterson has closed out his entire retail business and will devote his entire organization to the manufacture of WorkRite sets and parts for the trade.

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Diodide Detector Tube with Socket.....	2.50
Apex Tubes.....	4.00
All American Transformers.....	\$4.50 and 4.75
Bristol Loud Speaker.....	12.50
Dictagrand Loud Speaker.....	24.50
Adapters and Sockets for UV-199 Tubes.....	60c up
Connecticut Sodian Tube.....	5.00
Homecharger Gold Seal.....	18.50
No. 4500 Cotocoil Transformer.....	2.50
Harkness Coil, Silk Wound.....	pair 3.00
Sodium Tubes, ¼ amps, Detector Tubes, 1 ½, 3, 4, 6.....	4.50
Sodium Tubes, ¼ amps, Amplifier Tube.....	4.50
Cardwell Condensors, 11 plate, \$4.25; 17 plate.....	4.75
Cardwell Condensors, 21 plate, \$5.00; 41 plate.....	6.00
Ballantine Transformer.....	9.60
Ballantine R. F. Amplifier.....	15.00
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Tungar Charges, 50 cyc., 2 amp.....	22.50

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Wireless Telegraphy, by Bucher.....	\$2.25	\$1.15
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Radio Instruments and Measurements.....	2.25	1.00
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10-12 P. M.
PACIFIC TIME

RADIO TIME TABLE

11-1 Mountain Time
12-2 Central Time
1-3 Eastern Time

STATION	WATTS	CITY	METERS	CALL	SUN.		MON.		TUES.		WED.		THUR.		FRI.		SAT.	
					10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00	10 00-10 30	10 30-11 00
L. A. Times	500	Los Angeles.	396	K H J					X	X								
E. C. Anthony	500	Los Angeles.	469	K F I	X	X												
Angelus Temple	500	Los Angeles.	278	K F S G			X	X										
Echophone Radio	100	Long Beach	234	K F O N							X	X						
Northwest Radio	100	Portland	360	K G N					X	X								
Oregonian	500	Portland.	492	K G W							X	X						
Post-Intelligencer.	100	Seattle	270	K F J C			X						X	X				
W. W. Grant	500	Calgary	440	C F C N					X	X								
Hale Bros.	500	San Francisco	423	K P O			X	X										
Herald	1000	Calgary	420	C F A C			X	X					X	X				
Westinghouse	1000	Chicago	536	K Y W											X	X	X	
Sweeney School	500	Kansas City	411	W H B	X	X												
Drake Hotel	1000	Chicago	360	W D A P					X	X								
Edgewater Beach	1000	Chicago	270	W G N					X	X	X	X						
Fallon & Co.	100	Santa Barbara.	360	K F H J					X	X	X	X	X	X				
General Elec. Co.	1000	Oakland.	312	K G O					X	X	X	X						
Honolulu Advtr.	500	Honolulu	360	K G U	X	X	X		X	X	X	X						
Calumet B. Pdr.	500	Chicago	448	W Q J									X	X	X	X	X	X

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John S. Daggett, Announcer and Manager

Daily, except Sunday and Monday, from 10 to 11 p. m., we will broadcast Art Hickman's Orchestra from the Biltmore Hotel. Sunday from 6:30 to 7:30 p. m. and daily except Monday, from 6 to 6:30, we will broadcast Art Hickman's Concert Orchestra from the Biltmore Hotel. 2:30 to 3:30 p. m. daily except Sunday and Monday, Matinee Musicale.

SUNDAY, AUG. 3—

10:00 a. m.

Sermon from KHJ studio by Rev. William C. Isett, pastor of Amanda Chapel, Carthay Center.

10:30 to 12:30 p. m.

Organ recital and entire religious service from the First Methodist Episcopal Church; Arthur Blakesley, organist, and Rev. Elmer E. Helms, pastor.

6:30 to 7:00 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel.

7:00 to 7:30 p. m.

Organ recital from the First Methodist Episcopal Church; Arthur Blakesley, organist.

8:00 to 10:00 p. m.

Program presented through the courtesy of Paul G. Hoffman Co., Inc. The Neblett Concert Trio; Leona Neblett, violinist; Ruth May Schaffner, soprano, and Raymond McFeeters, pianist.

MONDAY, AUG. 4—

12:30 to 1:15 p. m.

Carl Allen and his Rendezvous Ballroom Orchestra from the Crystal Pier.

TUESDAY, AUG. 5—

12:30 to 1:15 p. m.

Program of news and music.

2:30 to 3:30 p. m.

Silent.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel. Children's program presenting Prof. Walter Sylvester Hertzog. The weekly visit of the Sandman and Queen Titania. Bedtime story by Uncle John.

6:45 to 7:30 p. m.

Program arranged through the courtesy of Mary Christine Albin, pianist.

8:00 to 9:00 p. m.

Program presenting the Fillino String Orchestra, through the courtesy of the Blue Bird Cafeteria.

9:00 to 10:00 p. m.

Art Hickman's Dance Orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

WEDNESDAY, AUG. 6—

12:30 to 1:15 p. m.

Program of news items and music. Fred C. McNabb of Aggeler & Musser Seed Co.

2:30 to 3:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel.

6:00 to 6:30 p. m.

Children's program presenting Prof. Walter Sylvester Hertzog. Dick Winslow, screen juvenile. Charles Metz, 11-year-old violinist, pupil of Lorna Usher. Baby Murial MacCormac, screen juvenile. Bedtime story by Uncle John.

6:45 to 7:30 p. m.

Program presented through the courtesy of the Platt Music Co., arranged by Edwin Lester of the Platt Music Co.

8:00 to 9:00 p. m.

Program presenting Hatch Graham, singer. Dr. Mars Baumgardt, lecturer.

9:00 to 10:00 p. m.

Art Hickman's Dance Orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

THURSDAY, AUG. 7—

12:30 to 1:15 p. m.

Program of news items and music.

2:30 to 3:30 p. m.

Silent.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel. Children's program presenting Prof. Walter Sylvester Hertzog. The weekly visit of Dickie Brandon, screen juvenile. Bedtime story by Uncle John.

6:45 to 7:30 p. m.

Program presenting the Piggly-Wiggly Trio, arranged by Miss Childred.

8:00 to 9:00 p. m.

Program presenting G. Allison Phelps, speaker. Al Schiller, pianist.

9:00 to 10:00 p. m.

Art Hickman's Dance Orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

FRIDAY, AUG. 8—

12:30 to 1:15 p. m.

Program of news items and music.

2:30 to 3:30 p. m.

Silent.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel. Children's program presenting Prof. Walter Sylvester Hertzog. Bedtime story by Uncle John.

6:45 to 7:30 p. m.

Program presented through the courtesy of Mr. and Mrs. J. L. Hunter, owners of the Raven at Laguna and San Juan Inn, San Juan Capistrano; arranged by Julia Kellar, harpist.

8:00 to 9:30 p. m.

Program presenting Charlie Wellman, jazz tenor, and Bill Hatch, pianist.

9:30 to 10:00 p. m.

Art Hickman's Dance Orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

SATURDAY, AUG. 9—

12:30 to 1:15 p. m.

Program of music and news items.

2:30 to 3:30 p. m.

Silent.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel. Children's program presenting Prof. Walter Sylvester Hertzog. Bedtime story by Uncle John.

6:45 to 7:30 p. m.

Program presenting the Naval Reserve Band; M. L. Brock, director.

8:00 to 10:00 p. m.

Art Hickman's Dance Orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

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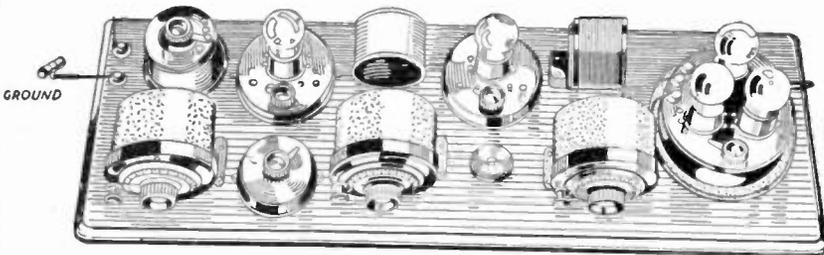
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Los Angeles Evening Herald:	5:00 to 5:30 p. m.	Daily except Sunday
	8:00 to 9:00 p. m.	Monday, Wednesday, Friday
Los Angeles Examiner:	5:30 to 6:00 p. m.	Daily except Sunday
	9:00 to 10:00 p. m.	Daily
Hotel Ambassador:	8:00 to 9:00 p. m.	Sunday, Tuesday, Thursday
	10:00 to 11:00 p. m.	Monday
	11:00 to 12:00 p. m.	Wednesday, Friday, Saturday

SUNDAY, AUG. 3—

10:00 to 10:45 p. m.	L. A. Church Federation Service.
6:45 to 7:30 p. m.	Messiah Quartette.
7:30 to 8:00 p. m.	Metropolitan Theatre Program.
8:00 to 9:00 p. m.	Ambassador Hotel Concert Orchestra.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Packard Six Orchestra.

MONDAY, AUG. 4—

5:30 to 6:00 p. m.	Examiner News Bulletins.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

TUESDAY, AUG. 5—

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 8:00 p. m.	Aeolian Organ Recital.
8:00 to 9:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Frederick Herrman, arranging vocal program.

WEDNESDAY, AUG. 6—

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 8:00 p. m.	Nick Harris Detective Stories and vocal concert.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Hollywoodland Community Orchestra.
11:00 to 12:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

THURSDAY, AUG. 7—

6:45 to 8:00 p. m.	Y. M. C. A. lecture and Bon Ton Orchestra.
8:00 to 9:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Instrumental program.

FRIDAY, AUG. 8—

6:45 to 8:00 p. m.	Aeolian Organ Recital.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Loa Felix Trio.
11:00 to 12:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

SATURDAY, AUG. 9—

5:00 to 5:30 p. m.	Evening Herald News Bulletins.
6:45 to 8:00 p. m.	Hennessy's Paramount Players.
8:00 to 9:00 p. m.	Altbada Oliver, mezzo-soprano, arranging concert.
9:00 to 10:00 p. m.	Examiner program.
10:00 to 11:00 p. m.	Popular song program.
11:00 to 12:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

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5:00 to 5:30—Daily except Sunday—Evening Herald News Items

WEEK BEGINNING AUGUST 4

MONDAY, AUG. 4—

8:00 to 9:00 p. m.

Evening Herald Radiolians. Popular dance music.

WEDNESDAY, AUG. 6—

8:00 to 9:00 p. m.

Dr. George L. McClelland of Fullerton.

FRIDAY, AUG. 8—

8:00 to 9:00 p. m.

Fisher's Melo-Jazz Orchestra.

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PROF. J. B. TROWBRIDGE, Director of Programs

SUNDAY, AUGUST 3—

10:45 to 12:30 noon

Regular services of the Church of the Open Door, including sermon by Dr. L. W. Munhall. Mr. Gordon Hooker, organist. Mr. C. M. Books, gospel solo.

6:00 to 6:45 p. m.

Radio vesper service with sermon by Rev. Keith L. Brooks. Mrs. Fern Barton, organist. Mr. C. E. Rykert, baritone soloist. Sermon by Dr. L. W. Munhall. Mr. C. M. Books, baritone soloist. Mr. Gordon Hooker, organist.

8:00 p. m.

TUESDAY, AUGUST 5—

8:00 to 9:00 p. m.

Program arranged by courtesy of Mr. H. A. Gooding, bandmaster, Salvation Army Band, Los Angeles Corps No. 2.

THURSDAY, AUGUST 7—

8:00 to 9:00 p. m.

Organ recital, Mrs. C. E. Anderburg. Mrs. Harry Rimmer, soprano; Miss Esther Orth, contralto; Mr. Wm. Roberts, lyric tenor; Mr. Wm. Leonard Galloway, violinist.

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- SUNDAY, AUGUST 3—**
10:30 to 12:30 p. m. Complete auditorium service. Triple male quartet. Children's chorus. M. L. Jones, baritone. Sermon by Aimee Semple McPherson. Esther Fricke Green, organist.
2:30 to 4:30 p. m. Afternoon auditorium service, with sermon by the pastor. Music by the Temple Choir and Silver Band. Marian McGlashen Muller, Salvation Army soloist, soprano. Roy Reid Brignall, organist.
7:00 to 9:30 p. m. Special musical hour featuring the Silver Band, Temple Choir, Hanell's Marimba Band, Mrs. Maude Burnett, illustrated salvation sermon and altar call by Aimee Semple McPherson. Esther Fricke Green, organist.
9:30 to 10:30 p. m. Organ recital and program presented through the courtesy of Roy Reid Brignall and assisting artists.
- TUESDAY, AUGUST 5—**
3:30 to 4:30 p. m. Organ recital and program presented through the courtesy of Esther Fricke Green, organist, assisted by Ruth Boesch Wood, soprano, and Sarah Karcher, violinist.
6:30 to 7:30 p. m. Gray studio children's program presented through the courtesy of Harry James Beardaley (Cousin Jim), with assisting artists. Eugene Lamb, pianist. Frank Brown, gospel singer.
- WEDNESDAY, AUGUST 6—**
2:30 to 4:30 p. m. Divine healing service broadcast from the auditorium. A message of comfort and hope for the sick, afflicted and the shut-in, by Aimee Semple McPherson.
6:30 to 7:30 p. m. Gray studio children's program presented through the courtesy of Mrs. Edward Hughes of Eagle Rock, assisted by her two little daughters, Mary Elizabeth and Helen, and other artists. Marjerie Nell Snider, reader, pupil of Marshall Stedman.
- THURSDAY, AUGUST 7—**
3:30 to 4:30 p. m. Organ recital and program presented through the courtesy of B. Earnest Ballard, organist, and assisting artists.
7:30 to 9:15 p. m. Water baptismal service and sermon of Aimee Semple McPherson, broadcast from the auditorium. Music by the Temple Choir and Silver Band, under the direction of G. N. Nichols. Esther Fricke Green, organist.
9:15 to 10:00 p. m. Gray studio program featuring the Temple Choir and Silver Band under the direction of G. N. Nichols.
10:00 to 11:00 p. m. Organ recital and program presented through the courtesy of Esther Fricke Green, with assisting artists.
- FRIDAY, AUGUST 8—**
3:30 to 4:30 p. m. Organ recital and program presented through the courtesy of Roy Reid Brignall, organist, with assisting artists.
7:30 to 9:15 p. m. Young people's service broadcast from the main auditorium. A live, bright Crusaders' meeting. Address by Judge Carlos S. Hardy of the Superior Court. Sermon by Aimee Semple McPherson. Music by the Silver Band.
9:15 to 10:00 p. m. Gray studio program presenting the Sierra Trio of Pasadena, and Jennie Durkee, ukulele and guitar soloist.
10:00 to 11:00 p. m. Organ recital and program presented through the courtesy of B. Earnest Ballard, with assisting artists. Margaret Kennedy, lyric soprano. Harold Lloyd, tenor.
- SATURDAY, AUGUST 9—**
3:30 to 4:30 p. m. Organ recital by Roy Reid Brignall.
7:30 to 9:15 p. m. Divine healing service and sermon of Aimee Semple McPherson, broadcast from the great auditorium.

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TUESDAY, AUG. 5—Between 2:30 and California Theatre Concert Orchestra of fifty musicians; Carli D. Elinor, director. Concert program given in conjunction with the photoplay, "Never Say Die," the current attraction at the California.

WEDNESDAY, AUG. 6—About 7:00 p. m.

THURSDAY, AUG. 7—Between 2:30 and

SATURDAY, AUG. 9—About 7:00 p. m.



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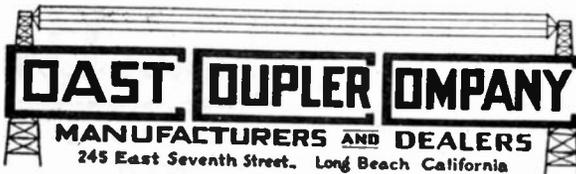
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- MONDAY, AUG. 4—
1:30 to 2:30 p. m. Mixed musical program. Arranged by the Thearle Music Co. Time signals.
- TUESDAY, AUG. 5—
1:30 to 2:30 p. m. Dance music, arranged and presented by the Thearle Music Co. Time signals.
6:00 to 6:45 p. m. Classical music. Late news items. Time signals.
- WEDNESDAY, AUG. 6—
1:30 to 2:30 p. m. Popular jazz music. Time signals.
8:00 to 9:00 p. m. Our regular Wednesday night program. To be announced later. Time signals. News items.
- THURSDAY, AUG. 7—
1:30 to 2:30 p. m. Dance music and request numbers. Time signals.
6:00 to 6:45 p. m. Operatic selections. Arranged by the Thearle Music Co. Time signals.
- FRIDAY, AUG. 8—
1:30 to 2:30 p. m. Mixed musical numbers. Time signals.
6:00 to 6:45 p. m. Popular jazz music. Time signals. Late news items.
- SATURDAY AND SUNDAY NO BROADCASTING DURING JULY AND AUGUST

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KLX — Oakland Tribune Radiophone — 509 Meters

SUNDAY, AUG. 3—

(Silent.)

DAILY—

3:00 to 5:00 p. m. Baseball scores, all leagues (except Sunday and Monday).
 7:00 to 7:30 p. m. News items, United States Weather Bureau report, financial and market news.

MONDAY, AUG. 4—

8:00 to 9:00 p. m. Educational talks by members of the summer session faculty, University of California, and music, broadcast over private leased wires through KLX from Stephens Union Hall, University of California campus.

9:00 to 10:00 p. m. Music by American Theater Orchestra, Owen Sweeten, directing, broadcast over private leased wires from the American Theater, with song numbers from the KLX studio by Wendell Hall, through the courtesy of the National Carbon Company.

TUESDAY, AUG. 5—

6:00 to 7:00 p. m. Children's Hour, conducted by Aunt Elsie of the Tribune Staff.

WEDNESDAY, AUG. 8—8:00 to 10:00 P. M.

Studio Program—Presentation by the KLX Players of
 "ONLY THIRTY-EIGHT"

A comedy of three acts by A. E. Thomas, under the direction of Etta Wilson Coleman

CAST OF CHARACTERS

Mrs. Newcomb	Clara Havens	Mr. Sanford, Mrs. Stanley's father
Mrs. Peters	Daisy Burman	J. Spencer Riley
Mrs. Stanley, who is "only 38"	Etta Wilson Coleman	Robert Stanley
Lucy Stanley, her daughter	Eugenia Hauck	Sydney Johnson
Mary	Ethel Johns	Prof. Giddings
Alice	Ethel Johns	Jimmy
		Charlie
		Dorian Rutter

PART I—In the home of Mrs. Stanley.

(Intermission)

PART II—In the college city of Hampshire.

(Intermission)

PART III—Same as part II.

During intermission between first and second parts, Helen Goodfellow, pianist and pupil of Mrs. H. I. Krick of Oakland, will play: (a) Elegie in C Sharp Minor (Nollet); (b) Alt Wien (Godowsky); (c) Military Polonaise (Chopin).

During the intermission between parts two and three, Lawrence Drake of the Whitehouse Book Department, San Francisco, will deliver the third of a series of book reviews.

Following part three of "Only Thirty-Eight" the controls of KLX will be transferred to the American Theater for instrumental selections by the American Theater Orchestra, Owen Sweeten directing, and for a short organ recital by Clement Barker, American Theater organist.

FRIDAY, AUG. 8—8:00 P. M.

Studio Program

PART I

Presented by the Berkeley Branch of the Mercantile Trust Company of California
 Under the Direction of Ethel Irvine

- Soprano Solos—(a) The Wren (Benedict); (b) In the Time of Roses (Reichardt)
 Mrs. Grace G. Brear
 Miss Ethel Irvine, Accompanist
- Bass Solos—(a) Drink to Me Only with Thine Eyes (Old English); (b) Annie Laurie (Old Scotch); (c) Irish Names (Turvey)
 Albert E. Brear
 Mrs. Grace G. Brear, Accompanist
- Violin Solos—Selected Mrs. Claire Ferrin Thatcher
 Mrs. Jane Ralphs Bessette, Accompanist
- Whistling Solos—(a) Nocturne (Chopin); (b) Sunflower Dance (MacClymont)
 Miss Shirley Irvine
 Miss Ethel Irvine, Accompanist

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KGO—Pacific Broadcasting Station—312 Meters

GENERAL ELECTRIC COMPANY (312 Meters), OAKLAND, CALIFORNIA

WEEK OF AUGUST 3

- SUNDAY, AUG. 3—**
3:30 p. m. Concert by KGO Little Symphony Orchestra and soloists, Carl Rhodehamel, conducting.
- MONDAY, AUG. 4—**
1:30 p. m. New York Stock Exchange and U. S. Weather Bureau reports.
3:00 p. m. Studio musical program.
4:00 to 5:30 p. m. Henry Halstead's Hotel St. Francis Dance Orchestra, San Francisco.
6:45 p. m. Final reading, stock exchange and weather reports, and news items.
8:00 p. m. Educational program, with musical numbers. Courses in Agriculture, Spanish, Music, Economics, and Literature.
- TUESDAY, AUG. 5—**
1:30 p. m. New York Stock Exchange and U. S. Weather Bureau reports.
4:00 to 5:30 p. m. Concert Orchestra of the Hotel St. Francis, San Francisco, Vinton La Ferrera conducting.
6:45 p. m. Final reading, stock exchange and weather reports, and news items.
8:00 p. m. Part one, given by Boys' Band, American Legion, Post No. 83, Merced, Calif. Part two—Arion Trio; Ethel Darling, soprano; Charles N. Wilson Newell, pianist; San Francisco Trio; Cornet Imitation, Ethel Darling; Blanche Hamilton Fox, contralto; David Zimet, pianist; George von Hugel, 'cellist.
- 10:00 p. m. to 1:00 a. m. Henry Halstead's Hotel St. Francis Dance Orchestra, San Francisco.
- WEDNESDAY, AUG. 6—**
1:30 p. m. New York Stock Exchange and U. S. Weather Bureau reports.
3:00 p. m. Short musical program. Speaker furnished through the courtesy of the Cora L. Williams Institute, Berkeley, Calif.
4:00 to 5:30 p. m. Concert Orchestra of the Hotel St. Francis, San Francisco, Vinton La Ferrera conducting.
6:45 p. m. Final reading, stock exchange and weather reports, and news items.
- THURSDAY, AUG. 7—**
1:30 p. m. New York Stock Exchange and U. S. Weather Bureau reports.
4:00 to 5:30 p. m. Concert Orchestra of the Hotel St. Francis, San Francisco, Vinton La Ferrera conducting.
6:45 p. m. Final reading, stock exchange and weather reports, and news items.
8:00 p. m. Three-act comedy, "Not So Fast," presented by the KGO Players, under the direction of Wilda Wilson Church. Music between acts by KGO Orchestra.
- FRIDAY, AUG. 8—**
1:30 p. m. New York Stock Exchange and U. S. Weather Bureau reports.
3:00 p. m. Studio musical program.
4:00 to 5:30 p. m. Concert Orchestra of the Hotel St. Francis, San Francisco, Vinton La Ferrera conducting.
6:45 p. m. Final reading, stock exchange and weather reports, and news items.
- SATURDAY, AUG. 9—**
12:30 noon New York Stock Exchange and U. S. Weather Bureau reports.
4:00 to 5:30 p. m. Concert Orchestra of the Hotel St. Francis, San Francisco, Vinton La Ferrera conducting.
8:00 p. m. Arion Trio; Chanson Quartet; Helen E. Haist and Morton H. Gleason, contralto and bass duet; Philip Ashcraft, tenor; Bessie H. Woods, pianist; Miriam Sellander and Philip Ashcraft, soprano and tenor duet; Arion Trio; Helen E. Haist, contralto; vocal trio; Miriam Sellander, soprano; Margaret Avery, 'cellist; Morton H. Gleason, basso.
- 10:00 p. m. to 1:00 a. m. Henry Halstead's Hotel St. Francis Dance Orchestra, San Francisco.

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GENERAL ELECTRIC COMPANY (312 Meters), OAKLAND, CALIFORNIA
(Pacific Time)

TUESDAY, AUGUST 5—8:00 P. M.

PART ONE

This part of the program is given by the Boys' Band, American Legion Post No. 83,
Merced, California

PART TWO

Instrumental Selection—Cavalleria Rusticana (Mascagni)	Arion Trio
Soprano Solos—(a) Irish Love Song (Lang); (b) Sing Me To Sleep (Greene)	Ethel Darling
Piano Solos—(a) Nocturne, Op. 9, No. 2 (Chopin); (b) Valsec (Mokrejs)	C. N. Wilson Newell
Trio Selections—(a) The Nile (Leroux); (b) La Vis, one (Vannuccini)	San Francisco Trio
Blanche Hamilton Fox, contralto; George von Hagel, 'cellist	
Charles N. Wilson Newell, pianist	
Cornet Imitations—(a) Maryland, My Maryland (Ryder); (b) Perfect Day (Bond)	Ethel Darling
Instrumental Selections—(a) Melodie (Tschaikowsky); (b) Orientale (Cesar Cui)	Arion Trio
Contralto Solos—(a) Now Sleeps the Crimson Petal (Quilter); (b) The Night Has a Thousand Eyes (Fisher)	Blanche Hamilton Fox
Piano Solos—(a) Selections from "The Merry Widow" (Lehar); (b) Nola Intermezzo	David Zimet
Trio Selection—Ave Maria (Bach-Gounod)	San Francisco Trio
'Cello Solos—(a) Dream Pictures (Golderman); (b) Gavotte (Popper)	George von Hagel
Instrumental Selections—(a) Minuet (Paradis); (b) My Bohemia (Taylor)	Arion Trio

THURSDAY, AUGUST 7—8:00 P. M.

"NOT SO FAST"

A Comedy in Three Acts, by Conrad Westervelt
Presented by the KGO Players, under the direction of Wilda Wilson Church

CAST

Henry Watterson Blake	Guy B. Kibbee
Mary Standish	Dorothea Wilson
Rose Standish	Vera Morse
Rob'n Standish	Barry Hopkins
Arabella, a maid in the Standish Home	Ellen Davidson
Sylvester Vane	Bert Horton
James Barton Acton	Fred Thomas
Fay Fothergill, Acton's Stenographer	Mary Harper
Place—New York City	Time—The Present

Instrumental Selection—Selections from "Faust" (Gounod)	KGO Orchestra
ACT I—A Living Room	
Instrumental Selection—Woodland Dreams Waltz (Waldteufel)	KGO Orchestra
ACT II—An Office	
Instrumental Selection—Aragonaize (Massenet)	KGO Orchestra
ACT III—Same as Act I	
Instrumental Selection—Tannhauser March (Wagner)	KGO Orchestra

SATURDAY, AUGUST 9—8:00 P. M.

Program given by the Chanson Quartet: Miriam Sellander, Soprano; Helen E. Haist, Contralto;
Philip Ashcraft, Tenor; Morton H. Gleason, Bass; Bessie H. Woods, Accompanist.

Assisted by the Arion Trio

Instrumental Selections—(a) Anvil Chorus, "Il Trovatore" (Verdi); (b) Romance (De- bussy)	Arion Trio
Vocal Selection—By Babylon's Wave (Gounod)	Chanson Quartet
Duet for Contralto and Bass—A Short Cut (Trottere)	Helen E. Haist and Morton H. Gleason
Tenor Solos—(a) To a Hill Top (Cox); (b) An Irish Love Song (Lang)	Philip Ashcraft
Piano Solo—Liebestraum (Liszt)	Bessie H. Woods
Duet for Soprano and Tenor—The Morning Stars Sang Together (Huhn)	Miriam Sellander and Philip Ashcraft
Vocal Selections—(a) Would God I Were a Tender Apple Blossom (Old Irish); (b) Sweet and Low (Barnby)	Chanson Quartet
Instrumental Selections—(a) March of the Tin Soldiers (Tierney); (b) Invincible Amer- ica (Crosby)	Arion Trio
Contralto Solos—(a) Saphica Ode (Brahma); (b) I Bring You Heartsease (Brans- combe)	Helen E. Haist
Vocal Trio Selections—(a) On Thee Each Living Soul Awaits, "The Creation" (Haydn); (b) Praise Ye, "Attila" (Verdi)	Miriam Sellander, Philip Ashcraft, Merton H. Gleason
Violin Solo	Josephine Holub
Soprano Solos—(a) Ah! Love But a Day (Beach); (b) The Owl (Barnes)	Miriam Sellander
Vocal Selections—Festival Te Deum (Buck)	Chanson Quartette
Duet for Contralto and Bass—Singing to You (Kerr)	Helen E. Haist and Morton H. Gleason
'Cello Solo	Margaret Avery
Bass Solo—Song of Hybrias the Cretan (Elliot)	Morton H. Gleason
Duet for Soprano and Tenor—Serenade (Tosti)	Miriam Sellander and Philip Ashcraft
Vocal Selections—(a) As I Was Going to St. Ives (Brown); (b) Bless the Lord, O My Soul (Ivanoff)	Chanson Quartette
Instrumental Selection—Beauty's Eyes (Tosti)	Arion Trio

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1:00 to 2:00 p. m. and

4:30 to 5:30 p. m. Daily except Saturday and Sunday, Fairmont Hotel.

2:30 to 3:30 p. m. Studio program daily, except Sunday.

FRIDAY—

12:45 to 1:30 p. m. Speakers of Commonwealth Club from the Palace Hotel.

SATURDAY—

1:00 to 2:00 p. m.

3:30 to 5:30 p. m. Fairmont and Palace Hotel Tea Dansants.

SUNDAY—

11:00 a. m. to 12:15 p. m. Church services by Church Federation of San Francisco.

EVENING PROGRAMS

SUNDAY—

8:30 to 10:00 p. m. Rudy Seiger's Fairmont Hotel Concert Orchestra.

MONDAY—

8:00 to 9:00 p. m. Organ.

9:00 to 10:00 p. m. Studio program.

10:00 to 11:00 p. m. Max Bradfield's Versatile Band of Rose Room Bowl, Palace Hotel.

TUESDAY—

8:00 to 10:00 p. m. Studio program.

10:00 to 11:00 p. m. Palace Hotel Dance Orchestra.

WEDNESDAY—

8:00 to 11:00 p. m. Palace Hotel Dance Orchestra.

THURSDAY—

8:00 to 9:00 p. m. Organ.

9:00 to 10:00 p. m. Studio program.

10:00 to 11:00 p. m. Palace Hotel Dance Orchestra.

FRIDAY—

Silent.

SATURDAY—

8:00 to 12:00 p. m. Art Weidner's Fairmont Hotel Dance Orchestra.

MONDAY, TUESDAY, WEDNESDAY AND THURSDAY—

7:00 to 7:30 p. m. Dinner concerts by Rudy Seiger's Fairmont Hotel Concert Orchestra.

5:30 p. m. Children's Hour; stories for children.

10:00 p. m. Time Signals daily except Friday, P. S. T.

MONDAY, AUG. 4—

12:00 noon

A Bi-lingual reading of the Scriptures, first in English and then in Greek. The Right Reverend Athenagoras Cavadas, D.D., will handle the Greek. He is the Archmandrite of the Holy Trinity Greek Orthodox Church of San Francisco.

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Carl E. Haymond, Program Announcer.

MONDAY, AUGUST 4—

8:30 p. m. The program will include three of radio's most popular entertainers. Mr. Alfred Green, one of Seattle's most pleasing baritones, will sing two selected groups of solos, with Miss Willeke as accompanist. Nelle Duffey, mezzo-soprano, whose charming voice pleased all the radio fans during the recent concert, will sing three selected groups. Eva Craig, dramatic reader, exercises such wonderful enunciation and expression in her offerings, as evidenced by the many cards and letters from a recent radio concert, will give two groups of selected readings.

WEDNESDAY, AUGUST 6—

8:30 p. m. Special program of dance music played by the popular Premier Orchestra, under the direction of Al Nist, banjo player; Henry Bailey, piano; Joseph Sliva, trombone; Walter Watt, drums, and William Rosin, saxophone.

FRIDAY, AUGUST 8—

8:30 p. m. A varied program of vocal and instrumental music will be given under the direction of Mrs. Carl English, well known soprano of Seattle. She will be assisted by Mrs. Albert Parks, contralto; Henry Cook, baritone; Mrs. Ardron, tenor; Victor Vednick, violinist, and Mrs. Merriam, accompanist.

K G W—The Morning Oregonian—492 Meters

PORTLAND, OREGON
(PACIFIC TIME)

PROGRAM FOR WEEK AUGUST 3 TO AUGUST 9, 1924

SUNDAY, AUG. 3—

6:00 p. m. Church services.

MONDAY, AUG. 4—

11:30 a. m. Weather forecast.

3:30 p. m. Literary program by Portland Library Association.

7:15 p. m. Police reports.

7:30 p. m. Baseball scores, weather forecast and market reports.

TUESDAY, AUG. 5—

11:30 a. m. Weather forecast.

3:30 p. m. Children's program.

7:15 p. m. Police reports.

7:30 p. m. Baseball scores, weather forecast and market reports.

8:00 p. m. Concert arranged by Seiberling-Lucas Music Co.

WEDNESDAY, AUG. 6—

11:30 a. m. Weather forecast.

3:30 p. m. Talk by Jeanette P. Cramer, home economics editor of The Oregonian.

7:15 p. m. Police reports.

7:30 p. m. Baseball scores, weather forecast and market reports.

8:00 p. m. Concert.

10:00 p. m. Dance music by George Olsen's Metropolitan Orchestra of Hotel Portland.

THURSDAY, AUG. 7—

11:30 a. m. Weather forecast.

3:30 p. m. Children's program.

7:15 p. m. Police reports.

7:30 p. m. Baseball scores, weather forecast and market reports.

10:00 p. m. Dance music by George Olsen's Metropolitan Orchestra of Hotel Portland.

FRIDAY, AUG. 8—

11:30 a. m. Weather forecast.

7:15 p. m. Police reports.

7:30 p. m. Baseball scores, weather forecast and market reports.

8:15 p. m. Studio concert by George Olsen's Metropolitan Orchestra of the Hotel Portland; Herman Kenin, director.

10:30 p. m. Hoot Owls.

SATURDAY, AUG. 9—

11:30 a. m. Weather forecast.

3:00 p. m. Children's musical program: story hour.

10:00 p. m. Police reports, baseball scores, weather forecast and music by George Olsen's Metropolitan Orchestra of the Hotel Portland. (2 hours.)

Station K. G. W. is not observing daylight saving time.

W F A A — Dallas News-Journal — 476 Meters

(PACIFIC TIME) DALLAS, TEXAS

REGULAR DAILY FEATURES—

- 8:30 a. m. United States Weather Bureau report and forecast and C. A. M. A. A. highway condition bulletin for the Southwest, followed by Dallas produce market report and Wall street review.
- 12:30 to 1:00 p. m. Dallas livestock market, late general markets, sports, news.
- 3:30 to 2:00; 2:30 to 3:00 p. m. Agriograms, health bulletins, Texas market news, sports, news.
- 3:30 to 4:00 p. m. Bedtime story and fairy tale, told by Miss Mary C. Toomey.
- 4:45 to 5:00 p. m. Sport news and information bulletins.
- 7:30 p. m. United States weather report and forecast.

MONDAY, AUG. 4—

- 10:30 to 11:00 a. m. Address, Dr. J. D. Boon, Professor of Astronomy, Southern Methodist University, on "Fixed Stars and Variables."
- 6:30 to 7:30 p. m. Musical Recital by Old Fiddlers from Farmers Branch, Texas, L. J. Cook, directing.

TUESDAY, AUG. 5—

- 10:30 to 11:00 p. m. Address, DeWitt McMurray, editor The Semi-Weekly Farm News, in a medley of humor, pathos and wisdom.
- 6:30 to 7:30 p. m. Musical recital by orchestra and singers from Second Avenue Baptist Church.
- 9:00 to 10:00 p. m. MacDowell Sisters in Hawaiian Music Program.

WEDNESDAY, AUG. 6—

- 10:30 to 11:00 a. m. Musical recital, presenting the Red-Head Girl of The Dallas Journal. Station WFAA will be silent for the remainder of the day.

THURSDAY, AUG. 7—

- 10:30 to 11:00 a. m. Address, Capt. O. B. Freeman, Commander John W. Lowe Post, American Legion, on "The Former Soldier as a Citizen."
- 6:30 to 7:30 p. m. "Pep Peddlers," an orchestra from Paris, Texas, Ray Martin, directing.
- 9:00 to 10:00 p. m. Schubert Junior Choral Club and Glee Club in recital.

FRIDAY, AUG. 8—

- 10:30 to 11:00 a. m. Address, Dr. Robert Stewart Hyer, President Emeritus of Southern Methodist University, on the Sunday School Lesson.
- 6:30 to 7:30 p. m. Male quartet from Anna, Texas, in vocal recital.

SATURDAY, AUG. 9—

- 10:30 to 11:00 a. m. Address, Robert N. Watkin, on "The Place of Music in Summertime."
- 1:30 to 2:00 p. m. Musical program.
- 6:30 to 7:30 p. m. Eudoxia Butler and Nelva Boren in contralto voice and violin recital.
- 9:00 to 10:00 p. m. Adolphus Hotel Orchestra, Lawrence Morrell directing, a courtesy program from R. B. Ellifritz, Managing Director of the Adolphus.

SUNDAY, AUG. 10—

- 4:00 to 5:00 p. m. Radio Bible Class, Dr. William M. Anderson, pastor First Presbyterian Church, teacher; Bible Study and Gospel Song.
- 7:00 to 7:45 p. m. Sacred Song Recital, Dr. Robert Thompson and singers from Haskell Avenue Methodist Church.
- 7:45 to 9:00 p. m. Popular Music Recital by the Foxtrotters' Orchestra.

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DAVENPORT, IOWA—PACIFIC TIME

SUNDAY, AUGUST 3—

6:00 p. m. Church service—Rev. P. B. Gray, pastor Methodist Church, Wheatland, Iowa. Vocal solos by Richard Atwell, tenor.

7:30 p. m. Musical program (1½ hours). The Palmer School Radio Orchestra. Erwin Swindell, conductor. Assisted by Mrs. R. D. Hawkins, soprano; Emil Hass, reader.

MONDAY, AUGUST 4—

8:00 p. m. Musical program—Recital by Jas. R. Houghton, baritone, and Helen Gobble-Heingbaum, pianist: Recitative and aria, "Eri tu che macchiai?" from "Un Ballo in Macchua"; "Die Post; "Du Bist die Ruh"; "Standchen"; "En Automne"; Ballade, G Minor." Negro Spirituals: "Oh, When I Get to Heaven," "Were You There?" "Steal Away," "Goin' to Shout!" "The Cave," "Now Sleeps the Crimson Petal," "Invictus."

TUESDAY, AUGUST 5—

(No broadcasting after 6:00 p. m. Tuesday—Silent Night for W O C.).

WEDNESDAY, AUGUST 6—

6:00 p. m. Organ recital from the B. J. Palmer residence. Erwin Swindell, organist. Chas. R. Hall, tenor.

THURSDAY, AUGUST 7—

7:00 p. m. Orchestra program (1 hour)—The Palmer School Radio Orchestra. Erwin Swindell, conducting. Featuring: "My Daddy's Dreamtime Lullaby," "Waltz of Yesterday," "L'ac," "Mother Remembers, Broadway Forgets," "Pretty Soon," "Before I Go Home." (Popular selections released through the National Association of Broadcasters, of which W O C is a member.) Ralph W. Fuller, baritone soloist.

FRIDAY, AUGUST 8—

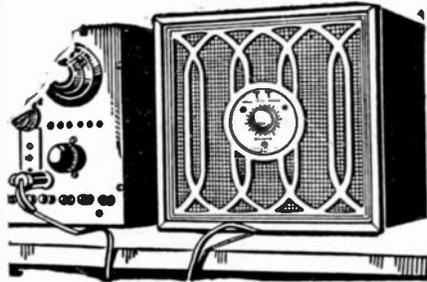
7:00 p. m. Weekly Tourists' Road Bulletin, as compiled by Touring Bureau, Davenport Chamber of Commerce.

SATURDAY, AUGUST 9—

7:00 p. m. Orchestra program (1 hour)—The Palmer School Radio Orchestra. Erwin Swindell, conductor. Featuring: "Some Day, Sweetheart," "The One I Love Belongs to Somebody Else," "Blue Rose," "Believe Me," "Sweetest Little Rose in Tennessee." (Popular selections released through the National Association of Broadcasters, of which W O C is a member.) Ralph W. Fuller, baritone soloist.

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K Y W—560 Kilocycles (536 Meters)—Westinghouse Chicago

DAYLIGHT SAVING TIME

FOR WEEK OF AUGUST 3 TO AUGUST 10, 1924

K Y W, "The World Crier," will broadcast the latest news of the world every half hour—on the hour and half hour—during the day and night. This service is furnished from 2 a. m. to 2 p. m. by the Chicago Evening American; International News Service, and Cosmopolitan News Service. K Y W bulletins are provided from 2 p. m. to 2 a. m. by the Universal News Service in co-operation with the Chicago Herald and Examiner. All Chicago stations are silent on Monday night from 4 p. m. to 9 p. m.

TUESDAY, WEDNESDAY, THURSDAY AND SATURDAY—

4:00 to 4:30 p. m. Dinner concert broadcast from the Congress Hotel: Joska DeBabary's Orchestra, Louis XVI room. Paul Whiteman's Collegians, under the direction of A. Vincent Gauthier, Pompeii room. Joska DeBabary's Orchestra, Louis XVI room.

TUESDAY, AUGUST 5—

5:00 to 6:30 p. m. Musical program through the courtesy of the Chicago Musical College under the direction of Eudoardo Sacerdote. Speeches under the auspices of the American Farm Bureau Federation: "Ridding the Nation of Bovine Tuberculosis," by H. R. Smith, National Live Stock Exchange; "We-Mindedness," by E. P. Taylor, assistant director, Organization Department, American Farm Bureau Federation. Continuation of musical program by the Chicago Musical College. Artists and program will be announced by radio.

7:00 to 8:30 p. m. "At Home" program. This is a Chicago Evening American-Westinghouse feature, broadcast from K Y W's studio in Hearst Square.

WEDNESDAY, AUGUST 6—

4:30 to 6:10 p. m. Program from K Y W's studio in the Duncan Sisters Music Publishing Offices. Musical program will be radiocast from K. Y. W's studio in the Commonwealth Edison Building through the courtesy of the Sherwood Music School, direction of Ruth H. Lathrop. Artists and detailed program will be announced by radiophone. "Good Roads" report will be furnished by the Chicago Motor Club.

6:45 to 9:30 p. m. Midnight revue. This is a Chicago Evening America Westinghouse feature. It is radiocast from K Y W's studio in Hearst Square. Artists and program will be announced by radio.

THURSDAY, AUGUST 7—

5:10 to 8:30 p. m. "Twenty Minutes of Good Reading," by Rev. C. J. Pernin, S. J., head of Department of English, Loyola University, Chicago. Musical program: Edna Benson, soprano; Helen Weiner, mezzo; Mrs. B. Marchek, accompanist; Franz W. Schmidt, tenor; Francis J. Valentin, pianist; Sallie Menkes, accompanist. Detailed program will be announced by radiophone. "Safety First" talk by Mr. Z. C. Elkin of the Chicago Motor Club. "At Home" program given from K Y W's studio in Hearst Square.

FRIDAY, AUGUST 8—

4:30 to 5:45 p. m. Program broadcast from K Y W's studio in the offices of the Duncan Sisters Music Publishing Company. Speeches under the auspices of the American Farm Bureau Federation: "Cattle Kings from Club Work," by Dr. R. F. Eagle, executive department, Wilson & Co.; "Where Our Products Must Be Sold in Future," by Arthur C. Page, editor, Orange Judd Illinois Farmer; "The Farming of the Future," by E. F. Gallup, supervisor of Agricultural Education, Lansing, Michigan.

6:00 to 9:30 p. m. Midnight revue. This is a Chicago Evening American-Westinghouse feature. It is broadcast from K Y W's studio in Hearst Square. Artists and program will be announced by radiophone.

SATURDAY, AUGUST 9—

5:00 to 6:30 p. m. Musical program: Rose Meyers, soprano; Sallie Menkes, accompanist. Herman Essak, violinist. Nell Gwynn, soprano. Additional artists and detailed program will be announced by radiophone. Talk by Vivette Gorman of the Home Economics Department, Peoples Gas Co. Youth's Companion, including short stories, articles and humorous sketches.

Murdock Radio Head Phones "Standard Since 1914"

Get the "low down" on radio from experts at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

Letters to the Editor

July 19, 1924.

Dear Sir:

Tonight I received a station around 360 meters, between 7:30 and 8:15. At first a man lectured for about twenty minutes, then he quite and a woman talked about ten minutes, and then the man lectured from then on until about 8:15, when it seemed as though they signed off. It must have been a powerful station, for they were rather broad tuned. I would also like to know the call letters of the new station in Salt Lake which broadcasts about three times a week.

I would appreciate this information very much. I read the "Radio Doings" and think that it is a fine book.

Yours truly,

W. H. RONEY,
119 North Third Street, Alhambra, California.

203 Montana Ave., Santa Monica, Calif., July 25, 1924.

Editor, Radio Doings,
Los Angeles, Calif.

Dear Sir: I made a rather interesting experiment last week when my wife and I took our Radiola Super-Heterodyne with a four-foot folding loop to the top of San Jacinto Mountain, elevation 10,805 feet.

We left Idyllwild Inn on Tuesday morning, July 15, 1924, and after an all-day ride reached the top at sundown in time to get ready for 8 o'clock reception. We found a sheltered spot and set up the loop and receiver so that we could tune while wrapped in our blankets (it sure gets cold up there at night). The static was pretty bad, but we succeeded in getting KHJ, KFI, KIX, KPO and KDKA, as well as KFKX, which was re-broadcasting KDKA. The greatest pleasure was when Uncle John (KHJ) at 8:59 p. m., after giving the correct time, announced that we were on San Jacinto and hoped that we were able to set our watches. Next morning the mule who carried the set up proceeded to buck until he threw himself at the sight of the set coming his way. We packed down to Round Valley at the base of the peak and slept all day. Reception at Round Valley was not good and the following day we returned to Idyllwild Inn. A word in regard to the relative volume of the stations heard may be of interest. KLX and KPO were heard with nearly the same volume as KHJ and KFI, and the fading was not nearly as marked as at Santa Monica. KHJ and KFI did not fade at all as they do at the Idyllwild Inn, where they go out entirely. KFKX and KDKA could be heard on the loud speaker at a distance of two or three feet. I think this is the first time a receiving set has been put on San Jacinto peak. The set came through the trip in good shape thanks to Domingo Costo, our packer.

Very truly yours,

HORATIO SEYMOUR.

P. S.—Last but not least our Radio Doings was with us.

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Letters to the Editor

Editor, Radio Doings.

Dear Sir: I have something I would like to ask you or some reader of the wonderful little magazine. Monday, July 14, at 10:30 a. m. I heard a conversation about 240 meters. There was a man that would keep saying, "Hello, hello, hello, 6BW, do you hear?" He would repeat this many times. He would talk about the wave length and ask if the other person heard. At this same time there was some one that would say, "This is HJY. Hello, go a lower, I raised my wave." Then some one would say, "Is my wave too low? Hello, KJW, hello." If anyone heard this I would like to hear from them.

Yours truly,

JACK OSBORNE, 237 California Street, Huntington Park, Calif.

We think that you probably heard 6JY talking to 6BW. Both these are licensed amateurs. 6JY is A. J. Pashgian, Pasadena; 6BW is S. McK. Hudd, Oakland.

Editor, Radio Doings.

July 15, 1924.

Having read from time to time in your valuable book of so many fans having trouble in selectiveness in the Harkness circuit. Having built several of them, I have found several ways of remedying it.

Shortening aerial, a little less volume. Topping primary of 1 W coil at 8 turn. Use a .0005 variable condenser in antenna circuit. Best of all use a .00025 fixed mica condenser between aerial lead-in and aerial binding post. Using the .00025 fixed condenser, in this way I can tune in the following stations, one after the other, when they are in: KFON, KGO, KFSG, KJS, KHJ and KFI, without any interference with one or the other. I also use the best audio transformer I can get for the first one, which sharpens the tuning of your second coil and condenser. Best parts all around are none too good for success, as I have tried all kinds.

My antenna is a two-wire flat top, 72 feet long, 50 feet high at one end, 36 feet high at the antenna lead-in end, with a 40-foot lead-in and 15-foot ground. I have also tuned in two stations in Chicago, Cleveland, Ohio; Davenport, Iowa, and Nebraska on one tube and head set.

Hoping this will help some Harkness fans, I am,

Yours truly,

L. A. BICKEL, 143 East Sixty-third Street, Los Angeles, Calif.

Editor, Radio Doings.

Glendale, Calif., July 14, 1924.

I heard a piano solo at 7:27 tonight on about 269 meters. I would be very glad to know who it was, whether KFAW, KFR or possibly KFCB. If any of your readers could help me, I would appreciate it.

PAUL L. SCOTT, 623 North Jackson Street, Glendale, Calif.

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Letters to the Editor

July 24, 1924.

Could anyone please tell me where Isham Jones' orchestra was playing July 23 about 10:30?

Those who desire information about the selectivity of the Harkness circuit would be surprised at the results obtained by using a simple wave trap consisting of 50 turns No. 22 D. C. C. wire, shunted by a 43 plate condenser in series with antenna and ground.

I can get KGO and KPO remarkably well while locals are on.

EVAN McLAUGHLIN, 1841 East Villa Street, Pasadena, Calif.

Santa Ana, Calif., July 26, 1924.

Dear Mr. Charles:

The following took place at one of the local broadcasting stations on Friday night of this week:

The writer was putting on a program through some local talent and had a friend here from the south whom he took along to the station to see the way in which broadcasting was done.

It so happened that the regular announcer was ill and the announcing was done by his understudy, and after several numbers had been dedicated to various ones, my friend asked if he could have a number dedicated to his wife-to-be in Yuma, Arizona.

I wrote the name and address on a slip of paper and handed it to the announcer, and this was the happening:

Announce: "The next selection will be a vocal solo rendered by Mr. Barney Webber, and we are dedicating this to Miss So-and-So, who is listening in in Yuma, Arizona," and, unknowingly, Mr. Webber sang "You Go Your Way and I'll Go Mine."

Now this friend spent the remainder of the night writing letters and telegrams squaring himself.

Very truly yours, W. V. P.

Cannon-Ball Phones \$3.50

It Weighs But Ten Ounces Complete with Headband and Cord

Why do you prefer the light, attractive straw hat for Summer wear? Because it is so cool and comfortable. The lighter the better and usually the more expensive because light weight accompanies good quality.

It seems to us that if this is true of a hat, it is equally true of a headset. They are often worn for hours, and you surely want to be comfortable when you are being entertained by Radio. If your headset is uncomfortable, then you are not being entertained, indeed you are being punished.

As we said before, a light straw hat is usually the most expensive, but fortunately this is not the case with headsets. The CANNON-BALL phone is extremely low in price. It is not, however, of inferior quality. The materials and workmanship are the best. It could not be otherwise and be so light. We do not believe that you can buy a better headset at any price.

CANNON & MILLER have been making headsets for years. We make nothing else. Our force is trained to make this class of apparatus ONLY and the result is perfection in manufacture possible only under such conditions.

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Letters to the Editor

Editor, Radio Doings,
Los Angeles, Calif.

Dear Sir:

Some recent experiments (amateur) on my part have during the warm weather materially increased the strength and quality of my reception for local programs. I cannot say it has helped any in getting Oakland, for it has not, but locally it has proven most helpful.

I first put up an aerial slightly over the roof of my bungalow, that gave satisfaction for my first efforts. Desiring greater distance and strength, a second aerial was erected above the tops of my trees, with the expected increase in strength and clarity of reception.

I experimented still more. Securing ten feet of 18-inch copper screen, I tried it out in various ways as an aerial. My best result in using that was when I rolled it up, with waxed paper inside, insulating the screen from itself. I was much pleased with results, when it was suggested that the original and lower aerial be used as a ground or counterpoise. This I substituted for my water pipe ground, but found the screen failed to work as formerly. Cutting out my screen, I found my reception was excellent, but not any improvement over the water pipe ground.

Going back to the water pipe as a ground, I again used the screen, but this time cut it into my high aerial, with improvement in reception again. Then trying the lower aerial as a counterpoise, I found results not so good again, causing me to again remove the screen.

The happy idea of experimenting with the water pipe ground and lower aerial, both as a ground, resulted in obtaining the best all-round reception for local programs that I have at any time secured. Not being sufficiently up on the technical side of the matter, I would appreciate learning why the use of the lower aerial and water pipe ground has proven so superior in every way to the water pipe alone, or the lower aerial alone as a counterpoise, with my high antenna as upper receiver. Anyone else who has experimented along these lines the writer would be glad to hear from, with details.

Cordially yours,
PIERSON W. BANNING.

148 North Wilton Place, Los Angeles.

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N. P. JACK

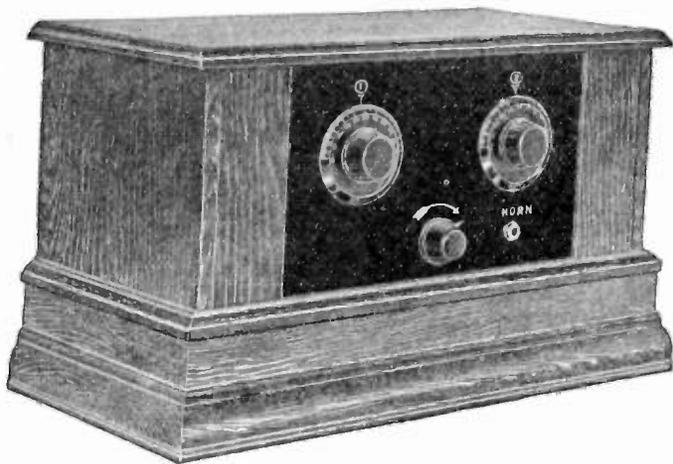
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No. 340	A & B Crystal Set.....	6.00
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?? ??

QUESTION—I have a home made crystal set on a 100 ft. antenna. Would it be better to use an aerial longer than 100 feet? I get San Francisco and Oakland good and loud, and don't you think I could pick up some more distant stations, like Los Angeles?

Yours sincerely,

ERIC ROBINSON,

Box 124, Mayfield, California.

ANSWER—No, your antenna is right. You cannot expect to hear Los Angeles stations on a crystal set in your location.

QUESTION—What is the quickest and most practical way to learn the wireless code? Which is the best set for volume, the 3-tube CR-5 circuit or the Harkness 2-tube reflex circuit?

JOHN GIBSON, Box 91, Beaumont, Cal.

Answer—The best way is to attend a good radio school. If this is out of the question get another person to learn it with you so that each can send to the other. Make a buzzer, key and battery arrangement to practice on. (2) You may expect slighter greater volume from the 3-tube hook-up.

Question—I am four blocks from KHJ and have a 3 tube set. I would like to know how I can hear other stations through him?

H. WOLF, 710 East 1st St., Los Angeles, Calif.

Answer—Shunt a 50-turn coil with a 23-plate variable condenser and connect in series with your antenna circuit. Tune this new circuit to eliminate interference.

Los Angeles, July 28, 1924.

QUESTION—I am a subscriber to your little book and like it very much. My questions are as follows: 1. I have a chemical rectifier for charging B battery. Does it begin to charge as soon as it is connected to the battery? 2. I have a one-tube set (CR-5) circuit,—where is the best place for a "C" battery? 3. Who is KYY? They were testing Wednesday before last at 10:50 p. m. They were loud.

RICHARD MEAD, 814 Orange Grove, Burbank, Calif.

ANSWER—Nothing happens until the rectifier and B battery are connected to the alternating current supply, then charging begins. You need no "C" battery in a one-tube set. The one-tube is necessarily a detector and operating on low plate voltage, with sufficient grid bias already in use due to the connections of grid return and filament rheostat.

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?? ??

QUESTION—You're right! Trouble was with the tubes. Referring to my question which you answered in Radio Doings of July 20th to 26th. I equipped my set with 5 C-301-A's and Ye Gods! What volume! Get Los Angeles on loud speaker without amplification, which can be heard all over the house. Now, another question: There is a loud roaring growl, which seems to have started in the last two or three months, and is loudest when my whole set is tuned to resonance. Sometimes it breaks in during the day, and sometimes starts early in the evening.

The slides on my neutrodons are made of pieces of curtain rod. They are undoubtedly tin, though they were brass-lacquered previous to my having them nickeled.

L. N. BOUGHTON, 235 19th St., San Diego, Calif.

ANSWER—First, convince yourself that this racket is coming in on your antenna by disconnecting the antenna lead. This is a simple way of determining if noises are being caused within the set or are coming in from the outside. If you still have 'em with the lead off the set, look for tire trouble under the lid. Assuming that this noise is coming in from the outside, it requires a real Sherlock Holmes sometimes to run down the cause. It may be anything from mush from an arc station, leaky insulation in a high-tension power line, to electric sewing machines, vacuum cleaners, etc. We understand that you have a very excellent radio club in San Diego, and suggest taking the matter up there and determining the locality in which this disturbance seems to be most prominent. A directional loop set may sometimes be used to accurately locate the cause.

Though you may not notice any difference in your actual results, please take out those tin neutrodons, and put in brass tubing.

QUESTION—I have a new radio 3-A in my house at Carmel-by-the-Sea. It is hard to make the set regenerate on waves over 400 meters. My antenna is 125 feet long. Why don't the set regenerate? I have received the following stations: JGO, KLX, KLS, KUO, KHJ, KFI, KFSG, KJS, KGW, KFON, KFBK, KWG, KPFT and CFCN. These stations were heard from my loud speaker, with the exception of KGW. I cannot get along without Radio Doings, it has much information beside the time table.

JACK BREMER, Carmel, Calif.

ANSWER—You are obtaining very good results, receiving this list of stations on loud speaker. Many of these stations are above 400 meters and at considerable distances from you, and you are certainly employing regeneration to bring them in. What you mean, no doubt, is that you cannot make the detector tube oscillate at waves above 400. Try witching your tubes around. Those vary considerably as to the point on your regeneration control where oscillation occurs, and perhaps one of the tubes which you are now using for an amplifier will make a better detector than your present one.

QUESTION—Is there any book of instructions as to how to operate a radio set? We have no success in getting anything outside Oakland, San Francisco and Portland. We have a four-tube neutrodyne. None of us know anything about the operation of the thing. We don't know what a meter is. There must be some book explaining things to a foolish beginner. We find any number of books about building the machines and erecting aeriols, etc., but no book on how to get the broadcast stations and how to operate the set.

D. L. ROBINSON, Mapleton, Ore.

ANSWER—We know of no book explaining in detail the tuning procedure of the newer types of receivers, such as the neutrodyne you operate. Here is a good thought for the manufacturers—why not put out an instruction book with each instrument that will enable the "foolish beginner" to get entire satisfaction. We are mailing you a letter of instructions, in which we are endeavoring to make the process as clear as possible.

? ? ? ?

QUESTION—I am an old reader of RADIO DOINGS and would like to ask you a few questions: I have a two-tube Harkness set. Am using a 100-ft. single wire for antenna, Willard battery, galena crystal, two 301-A tubes. I have tried a "C" battery, but it never made any difference, so I took it out. Can you tell me where to hook up the "C" battery so it will help? How could I fix my set for long distance and volume?

RAYMOND VELLIQUETTE, 5502 Market St., Lawndale, Calif.

ANSWER—The Harkness is usually operated without C battery. Would not advise you to tamper with the circuits of the first or reflexed tube. A "C" battery may be added to the second tube, however, which is a straight audio-amplifier circuit. Simply open the grid lead and insert the C battery, connecting the negative terminal to the grid. If 90 volts of B battery is used, use a C battery of 3 cells, or $4\frac{1}{2}$ volts. In answer to your second query, it is impossible to say definitely what your trouble is if you do not get volume or distance. The Harkness set requires good units and careful assembly for good results, and very often full efficiency is not obtained. We have observed many cases where the first tube behaved as a detector and the second as one step of audio amplification, and the intermediate circuit with its transformers and crystal did not function at all. You may readily ascertain if this is your difficulty by opening the circuit at the crystal.

QUESTION—I am a reader of your magazine, and have been for over a year. I could not get along without it, and I certainly thank you for the many questions you have answered for me. I have a few problems that I am submitting to you.

1. I have built a 4-tube set as given in "100 Radio Hook Ups," Page 30, Fig. 55. When I put more than 45 volts B battery on it, it won't work the loud speaker, but works fine on headset. I have tried using C battery on $67\frac{1}{2}$ and 90 volts, but that doesn't make any difference. Oakland and Los Angeles come in loud on speaker with 45 volts. Please explain.

2. I have an aerial about 60 feet long and 30 feet high at one end, and 15 feet at the other end, and I had a plain 43-plate condenser on the above and could get Chicago, Pittsburg, Hastings and other stations. I took off the plain and put on a vernier condenser, 43 plates, and now I cannot get any of these places even when it was cool in April. I think it is the condenser. Please explain.

R. ST. CLAIR, East San Diego, Calif.

ANSWER—In this case there are two logical explanations, either or neither of which may be correct. It is possible that you have a semi-soft tube among the four which will not stand the higher voltage. This would, of course, wreck your output when the higher voltage B battery was put on, while giving perfect results at 45 volts. The second thought is that the loud speaker may be freezing up on the higher voltage, since you state results are O. K. on phones. If you have tubes of the 199 or 299 type, the soft tube explanation is the more probable, as this is a common fault.

2. While variable condensers vary as to their efficiency, some having greater energy losses than others, it is not logical that the change in condensers could bring about such a great change in results. I would say that some other condition within your equipment changed about the same time you switched condensers. It may be that you will trace this difficulty also to that soft tube.

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???

QUESTION—I have a standard single circuit regenerative set of which I am enclosing the diagram. When the ground wire is connected to this set, no signals excepting spark stations are received. When the ground wire is entirely disconnected from the set broadcast stations are heard with good intensity and quality, except for the fact that the set howls and squeals at the slightest move. Please check enclosed circuit and explain cause of the squeals.

JOHN COCHRAN, 251 Brocton Ave., Riverside, Calif.

ANSWER—You have made the mistake of connecting your variable condenser in parallel with the antenna inductance coil, instead of in series. The effect is that you are unable to tune down to the broadcast stations when your ground is on. The spark stations you hear are the commercials around 600 and 700 meters. Tie your ground on where it belongs, and then connect that 43-plate condenser in series with your antenna lead, instead of in shunt with your tuner, and all will be well. The reason that your set squawks with the ground off, is that body capacity effects become tremendously amplified. With no ground it is very unstable. With the whole earth tied to the set, the capacity of your body doesn't make much difference, though.

Among the enlisted men of the Navy to qualify for training as officers at Annapolis were two radiomen. The first was K. H. Weir, of East Hampton, L. I., N. Y., and the second, R. R. Reynolds, of Newnan, Ga.; both were third-class radiomen. They have not only passed their mental and physical examinations but have been entered at the Academy as midshipmen.

"Friends of Wireless Communication" of Provence, France, have taken the initiative in planning an International Inventors' Exposition at Marseilles, France, in the Spring of 1925, according to the report to the Department of Commerce. The French Radiophone Society of Paris, the National Syndicate of Radio-electric Industries of Paris, General Monro, of the Army, and General Ferrie, of the Military Telegraphy, have also offered co-operation.

The Polish Post Office Department has announced that, pending legislation, private radio sending or receiving installations in Poland are still forbidden, advices to the Department of Commerce state. Anticipated legislation, while expected to permit private receiving stations, will control their installation strictly by license. Unauthorized private radio telephone receiving stations will be sealed up on discovery by the postal authorities, and the case prosecuted.

Considerable criticism of this restrictive radio policy is expressed in Poland, but the government is urged not to abandon control of communications especially with Soviet Russia, due to the presence of numerous communist agents within the country. Efforts of British, French, German and Polish concerns to obtain a monopoly over eventual sales of radio equipment have further delayed relaxation of government control.

"RAY-DEE-ARTCRAFT Selection is YOUR Protection"



Stations Recently Deleted

Call	Station	Call	Station
KDYX	Star Bulletin Pub. Co., Honolulu, T. H.	KFDV	Gilbrech & Stinson, Fayetteville, Ark.
KDZQ	Nichols Academy of Dancing, Denver, Colo.	KFHB	A. S. Kolstad, The Rialto Theatre, Hood River, Ore.
KFAF	Western Radio Corp., Denver, Colo.	KFHf	Central Christian Church, Shreveport, La.
KFAJ	University of Colorado, Boulder, Colo.	KFFO	Smith, Dr. E. H., Hillsboro, Ore.
KFCY	Western Union College, La Mars, Iowa.	KFFZ	Al. G. Barnes Amusement Co., Dallas, Texas.
KFDA	Adler's Music Store, Baker, Oregon.	KFLR	University of New Mexico, Albuquerque, N. M.
KFFQ	Marksheffel Motor Co., Colorado Springs, Colo.	KFLW	Missoula Electric Supply Co., Missoula, Mont.
KFFV	Graceland College, Lamoni, Iowa.	KFMU	Stevens Brothers, San Marcos, Texas.
KFGV	Heidbreder Radio Supply Co., Utica, Neb.	KFMZ	Roswell Broadcasting Club, Roswell, N. M.
KFHx	Nelson, Robert W., Hutchinson, Kans.	KFNC	Alonzo Monk, Jr., Corsicana, Texas.
KFJV	Warren, Thomas H., Dexter, Iowa.	KFOF	Rohrer Electric Co., Marshfield, Ore.
KFLH	Erickson Radio Co., Inc., Salt Lake City, Utah.	KFOH	The Radio Bungalow, Portland, Ore.
KFLP	Everette M. Foster, Cedar Rapids, Iowa.	KFOP	Willson Construction Co., Dallas, Texas.
KFMS	Freimuth Dept. Store, Duluth, Minn.	KG N	Northwestern Radio Mfg. Co., Portland, Ore.
KFMY	Boy Scouts of America, Long Beach, Calif.	KZ V	Wenatchee Battery & Motor Co., Wenatchee, Wash.
KFNH	State Teachers' College, Springfield, Mo.	WABS	Essex Mfg. Co., Newark, N. J.
KFOV	Davis Electrical Corp., Sioux City, Iowa.	WABV	DeWitt, John H., Jr., Nashville, Tenn.
WABL	Lake Forest University, Lake Forest, Ill.	WBBQ	Frank Crook, Pawtucket, R. I.
WABN	Ott Radio, Inc., La Crosse, Wis.	WBBS	First Baptist Church, New Orleans, La.
WBBF	Georgia School of Technology, Atlanta, Ga.	WCAM	Villanova Col., Villanova, Pa.
WBBO	Mich. Limestone & Chemical Co., Rogers, Mich.	WCM	University of Texas, Austin, Texas.
WCAS	Dunwoody Industrial Institute, Minneapolis, Minn.	WDAO	Automotive Electric Co., Dallas, Texas.
WFAJ	Hi Grade Wireless Inst. Co., Asheville, N. C.	WFAF	Spratley, Henry C., Poughkeepsie, N. Y.
		WGV	Interstate Electric Co., New Orleans, La.
		WHAB	Thompson, Clark W., Galveston, Texas.

(Continued on Page 59)

STAR ENGRAVING COMPANY

223 EAST FOURTH ST.

LOS ANGELES

872-969 TELEPHONE 872-969

"Your Story in Picture Leaves Nothing Untold"

Overworking the Dictionary

....Vocabularies of adjectives and adverbs have been exhausted in the extravagant exploitation of various brands of Gasoline.

... Meanwhile, Gilmore Gasoline has won its popularity largely by 'word of mouth advertising.'

....The enormous increase in the sale of Gilmore Gasoline indicates that it must be 'consistently better.'

.... Have you tried Gilmore?

GILMORE GASOLINE *and* Motor Oils



256 Independent
Service Stations
will supply you
with Gilmore
Oil Products.

Stations Recently Deleted

(Continued from Page 57)

Call	Station	Call	Station
WFAQ	Missouri Wesleyan College and Cameron Radio Co., Cameron, Mo.	WIAF	De Cortin, Gustav A., New Orleans, La.
WFAT	Columbus College, Sioux Falls, S. D.	WJX	De Forest Radio Telephone & Telegraph Co., New York City.
WIAI	Heers Stores Co., Springfield, Missouri.	WLAJ	Waco Electrical Supply Co., Waco, Texas.
WIAJ	Fox River Valley Radio Supply Co., Neenah, Wis.	WMAB	Radio Supply Co., Oklahoma City, Okla.
WJAT	Kelley-Vawter Jewelry Co., Marshall, Mo.	WNAN	Syracuse Radio Telephone Co., Syracuse, N. Y.
WKAY	Brenau Col., Gainesville, Ga.	WNAS	Texas Radio Corp., Austin, Texas.
WLAK	Vermont Farm Machine Corp., Bellows Falls, Vt.	WNAV	People's Tel. & Tel. Co., Knoxville, Tenn.
WMAJ	Drovers Telegram Co., Kansas City, Mo.	WNJ	Shotton Radio Mfg. Co., Inc., Albany, N. Y.
WNAQ	Charleston Radio Elect. Co., Charleston, S. C.	WOAP	Kalamazoo College, Kalamazoo, Mich.
WOAR	Lundskow, Henry P., Kenosha, Wis.	WOK	Pine Bluff Company, The, Pine Bluff, Ark.
WQAW	Catholic University of America, Washington, D. C.	WPAT	Saint Patrick's Cathedral, El Paso, Texas.
WSAG	Davis, Loren V., St. Petersburg, Fla.	WQAD	Whitall Electric Co., Waterbury, Conn.
WSAW	John L. Long, Jr., Canandaigua, N. Y.	WRAA	Rice Institute, Houston, Texas.
WAAF	Galvin Radio Supply Co., Camden, N. J.	WRAH	Read, Stanley N., Providence, R. I.
KFAN	Electric Shop, Moscow, Idaho.	WRAY	Radio Sales Corporation, Scranton, Pa.
KFAU	Independent School Dist. of Boise City, Boise, Idaho.	WSAT	Donohoo-Ware Hdw. Co., Plainview, Texas.
KFDO	Cutting, H. E., Bozeman, Mont.	WWAC	Sanger Bros., Waco, Texas.

Carl A. Stone of the Carl A. Stone Company of Los Angeles, San Francisco and Seattle, has returned to Los Angeles after spending considerable time in the South and East on his honeymoon trip. The Radio Manufacturers Agents' Association of Southern California, of which Mr. Stone is president, expects to extend a welcome to him at their next luncheon. We hope to interview Mr. Stone in the near future and to hear from him what he thinks of trade conditions in the territories he has visited and expectations for the coming season. Mr. Stone is also due for an explanation why he sneaked off and got married without notifying his associates.

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AERIAL SERVICE

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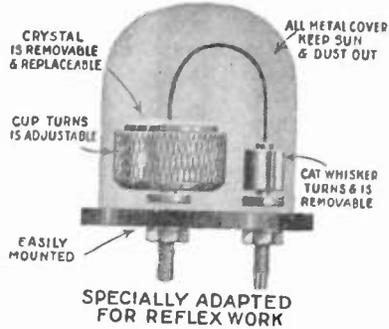
2228 W. 16th St.

Los Angeles, Calif.

— The —
Lincoln Detector

Enclosed, Fixed
 Adjustable

August 1st
 New List Price
\$1.50

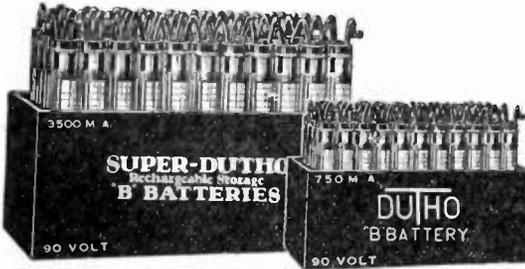


RADIO DEALERS!

You can get the "LINCOLN DETECTOR"
 from the following dealers—

- Yale Radio.....4816 S. Vermont Ave., Los Angeles
- Western Radio, Inc.....1224 Wall St., Los Angeles
- Radio Supply Co.....920 S. Broadway, Los Angeles
- Walter W. Biddick, Inc.....1316 S. Grand Ave., Los Angeles
- H. Earl Wright Co.....415 E. Eighth St., Los Angeles
- Kierulff & Ravenscroft.....1630 S. Los Angeles St., Los Angeles
- The Electric Corporation.....836 S. Los Angeles St., Los Angeles

Dutho-"B" Batteries



PRICE LIST

TYPE "S"
 750 M. A. Hours Capacity

Volts	Price
24.....	\$ 5.00
45.....	9.00
90.....	17.00

TYPE "L"
 3500 M. A. Hours Capacity

Volts	Price
24.....	\$ 9.00
45.....	17.00
90.....	32.00



Exclusive Distributors

**LINCOLN RADIO
 COMPANY**

1151 Santee Street
 FAber 0665

Los Angeles, Cal.
 FAber 0666

—Phones—

Trade Notes

Cloyd Marshall, Jr., representing Marshall & Company of Los Angeles and Seattle, has just been appointed Pacific Coast Sales Representative of the Crosley Radio Corporation of Cincinnati, Ohio.

Mr. Marshall also represents the Dubilier Condenser and Radio Corporation of New York City and the Coto-Coil Co. of Providence, R. I.

Mr. Marshall has just returned from a seven weeks' trip throughout the East and Middle West and reports that trade conditions are very good for this time of the year. Most of the wholesalers are running about 65 per cent of the winter volume; he also reports they all expect to do an enormous business the coming season of 1924-25, about 75 per cent greater volume than in the past season.

While in New York, Mr. Marshall had the opportunity of experimenting and testing out the new Dubilier product, the Super Ducon rectifier, to take the place of "B" batteries. He reports that he is more than satisfied with the results of the experiments as it will not only do what it claims to do but is absolutely noiseless.

He states that as far as he knows there are not any radical new changes in the products for the coming year. There will be changes, improvements and refinements, but the products will be basically the same as those manufactured and merchandised during the past season.

Mr. Marshall is now located in his new offices in the Radio Building, 1113 Wall street, Los Angeles, Calif., and states that he is ready to take care of a large increase in business this year.

The Radio Manufacturers Agents' Association of Southern California has proved such a success and has been of such help to the trade in general as well as to themselves that they have been requested to send their bylaws and other information pertaining to their organization to Chicago and New York where like associations are being planned. A national association has been formed to be known as the National Radio Manufacturers Agents' Association and the Radio Manufacturers Agents' Association of Southern California will be known as Chapter No. 1.

Still another acquisition to "Radio Row," Los Angeles. Hengler-Seltzer Company have lately opened at 1125 Wall street. This company are direct factory representatives of the following: Crescent Insulated Wire & Cable Co., Trenton, N. J.; Bonnell Manufacturing Co., New York; Saylor Electric & Manufacturing Co., Detroit; Aurora Steel Products Co., Aurora, Ill., and Yaxley Manufacturing Co., Chicago.

This firm wish it understood that they are not in the jobbing business, but will carry a very considerable stock of the various lines they represent for the benefit of jobbers.

A great surprise is planned at the coming radio show in San Francisco, August 16 to 21, inclusive by the Radio Manufacturers Agents' Association of Southern California, where they have rented a booth. We are not at liberty to tell you just what the association has "up its sleeve," but we can safely say that it will be a great feature of the show and will be a "knockout." Remember the date and place, and be there. The novel exhibit of this live organization will be worth the price of admission alone.

Listenwalter & Gough, Inc., 819 East First street, Los Angeles, have been appointed distributors for California for the Rola loud speaker.

A seven-tube super-heterodyne set was stolen from the store of the Carlberg Radio Company, 5850 South Vermont street, Los Angeles, on Saturday, July 19. This set contained "Haynes-Griffin" transformers, Cardwell condensers, Celeron panel and was in a gum cabinet 7x26x12. Any dealer getting trace of this set will please communicate with Mr. Carlberg or Radio Doings.

Radio dealers, join your trade leaders from throughout the country at the Pacific Radio Exposition, San Francisco Civic Auditorium, August 16 to 21, inclusive.

Out of the Air

In our notice last week about KFPT, Salt Lake City, we failed to call attention to their schedule. They are on the air on Mondays, Wednesdays and Fridays from 8 to 10 P. M., Pacific time.

We have just received word of a new station that has been reconstructed and is now broadcasting. This station is located at Chihuahua, Mexico. Their call letters are XICE, power 250 watts, wave length 375 meters. Their schedule is Wednesdays and Fridays from 8 to 9:30 P. M., Pacific time.

Little boys suffering from an irrepressible impulse to wander away from the front porch or back yard in search of adventure must nowadays take radio into account when formulating plans for a safe get-away. Otherwise radio upsets everything.

Little Marcel Plourde, aged 5½, left his parents' home, 608 Fullum Street, Montreal, at 11 A. M., July 15th. The police were duly notified and CKAC, La Presse, broadcast at 10 P. M. a description of the diminutive adventurer. Less than an hour later he was spotted at the corner of Chambly and Ontario Streets by a radio fan who was putting out some empty milk bottles at his door. After twelve hours of unalloyed freedom and bliss, Marcel was restored to loving arms.

Marcel is an experienced wanderer, according to his parents, and his disappearance from home "is a thing to be expected, every now and then, when the weather is fine."

"Some say there are a million too many retailers and the solution is to eliminate several hundred thousand of them. The solution lies, not in eliminating a million retailers, but in showing them how they can work efficiently and how they can be of the greatest possible service. This is the great task facing American business men today."—Roger W. Babson.

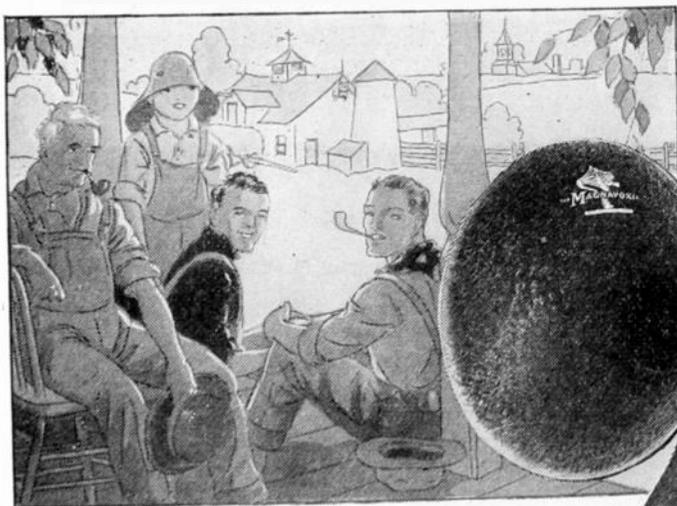
The third annual Boston Radio Exposition will be held in Mechanics' Building, the week of December 1 to 6, inclusive.

Quick to see the advantages of radio education, both to rural and urbane populations, Edna K. Barker is offering another foreign language course to the KPO listeners-in. The radio course in Spanish, which rose so rapidly in favor under Mrs. Barker's organization and direction, was the first of its kind ever given on the air and proved to be highly practical. The coming classes in French, however, are already more popular with the general public as well as with educators and students of economic and social life.

The KPO French course commences at twenty minutes past eight, Pacific time, August 20th. Tune in and take it. Write in and receive the free material. Send your stamped, self-addressed envelopes to Edna K. Barker or Ada Morgan O'Brien, Station KPO, Hale Bros., Inc., San Francisco. The course is free.

E. M. Bonnell, better known as "Uncle Remus" to a host of friends in Radio Land, has joined the Electric Equipment Company of Los Angeles and will have charge of wholesale sales of Atwater-Kent receiving sets for that firm. "Uncle Remus" accompanied "Uncle John" of KHJ on a recent vacation trip which took them to Green Creek, near Bridgeport, Mono County, at the "back door" of the high Sierras. "Uncle Remus" avers that "Uncle John" is just as good a swimmer and fisherman as he is a radio announcer, and that he turns the best double flip-flop that he has ever seen, which unfortunately is an accomplishment that is difficult to broadcast successfully. They took an Atwater-Kent receiving set along with them and listened to Los Angeles every night with great success.

Visit the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21.



\$25

Magnavox M4

*Contains a True
Reproducing Unit*

IF a radio reproducer does not contain a true **reproducing unit**, the size, design or material of its horn will be of very little importance.

The Magnavox M4, illustrated above, has been particularly popular with the man who has already owned one or more "loud speakers." One demonstration will tell you why.

Magnavox Radio Products are for sale by reliable dealers everywhere. The name Magnavox is your assurance of highest quality.

THE MAGNAVOX CO.

Oakland, Calif.

San Francisco Office: 274 Brannan Street

Canadian Distributors: Perkins Electric Ltd., Toronto, Montreal, Winnipeg

Over One-Quarter Million Dollars

Was Spent by Californians Alone During the Past Year

FOR THE

Freed-Eisemann NR5 NEUTRODYNE and Accessories



NR5 \$150

The popularity that has made these sales possible has also built up a reputation that will only be changed when it is fortified from year to year with new records—for the NR5 is still the best for summer or winter reception.

*If You Are Not Convinced, Ask Any of the Hundreds
of Owners, or Have One of Our Dealers
Demonstrate in Your Home*

THE BRAUN CORPORATION

Exclusive Far-Western Distributors

Los Angeles

Oakland