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# Radio Doings

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No. 4

## We Shall Hear the Shouts of Politicians

**W**ELL—"it's all over but the shouting," but there is sure to be a lot of that before the polls close November 4th, and much of the shouting will be over the radio broadcasting circuits of the country.

With the broadcasting of the political conventions this year, a new slogan was born: It no longer holds "That he who runs may read," but rather, "He who listens in may hear." Blase politicians, and even those who still believe something new is possible, were astounded at the interest displayed in broadcasts which carried to every city and farm the very words of the nominators and secondors, the votes of delegations and the stentorian tones of the chairmen. The radio listeners were on the inside for the first time. Through them the public at large had its ear to the air. Newspapers were aided in their stories and editorials through the radio. Some carried a daily ringside, or round-by-round resume of the sessions. Many people read these running accounts which were not dissimilar to the inning-by-inning baseball stories found on the sport pages.

Before the campaigns are fully launched we shall see that campaign managers have laid plans for broadcasting the speeches of their candidates and auxiliary speakers, wherever arrangements can be made with broadcasting stations, and again we will tune in to hear what we shall hear.

Every fan in the country will also prepare to listen in when the polls close on November 4th. The returns will be gathered directly from precincts in all the states. It is foreseen that broadcasters will co-operate with local papers or precinct headquarters and election boards so as to carry minute-by-minute bulletins on returns. Those who do not possess sets of their own will join the crowds in front of newspaper offices where loud speakers will be active.

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# Entertainment

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with a **CROSLEY PORTABLE**



51-P—\$27.50

Somewhere almost every hour of the afternoon, evening or night there is a concert, a jazz band or a funny story being broadcast that you can tune in on your 51-P Portable.

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This exceptional receiver will give loud speaker volume on local stations at all times and on distant stations under fair receiving conditions.

*Take your entertainment with you.*

*We have them now.*

## THE BRAUN CORPORATION

(Wholesale Only)

LOS ANGELES

OAKLAND

## The New Army Flying Sets Interviewing a Pilot

By CARL H. BUTMAN

The recently demonstrated Army Air Service radio transmitting and receiving set for observation planes, is remarkable for its lightness, weighing only 110 pounds without the batteries. It is also compact, as all airplane sets have to be, and provides for both sending and receiving. It is shut down by a single 3-way switch in the observer's cockpit. A remote-control switch also operates the transmitting power plant when thrown by the operator.

The transmitter, which is composed of three major parts, uses four tubes and a master-oscillator circuit, and has a wave band of approximately 500 kcs. Three means of sending signals are provided: telephone, telegraph with CW, and telegraph with ICW, with a number of various pitched tones.

The receiving equipment, also of three major parts, is basically a super-heterodyne of eight tubes, being a special Signal Corps set. The amplifying unit is remotely controlled from the tuner box, and has a reception band of from 200 to 1200 meters. The receiving tuner box has only three adjustments—filament, heterodyning, calibrated in kcs., and antenna tuning adjustment.

In recent tests by Signal Corps and Air Service experts between the airplane and the ground a distance of 90 miles has been traversed by messages from the air. With the superheterodyne receiver, operating against the roar of engine and ignition interference from a twelve cylinder Liberty engine, reception by the plane operator has accomplished over a distance of 150 miles from low-power transmitters. Broadcasting stations all over the country have been received by the plane while in the air.

In a special test of these receivers in two fast, single-seater planes travelling at about 150 miles per hour and doing maneuvers and acrobatics, perfect telephone conversation was maintained, using only wing-tip antenna. A plane doing acrobatics, could not employ a trailing antenna as it would in straight and level flying.

The lightness of the set is due chiefly to the use of especially constructed laminated wood of great strength and through the use of duralumin, the light metal employed in the construction of the Navy's Airship Shenandoah. Careful design of each individual part of the radio equipment has also had considerable to do with the lightness of these airplane sets.

An enterprising semi-official reporter of the Army air service recently demonstrated the possibilities of interviewing aviators while aloft.

When Mr. Jacobs, the correspondent, saw Lieut. A. L. Johnson of McCook Field, Dayton, take off in a DH and disappear in the clouds, he wondered how it

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Ample Volume for Loud Speaker \$27.50

BURGESS BATTERIES for Better Quality, More Volume, Greater Distance, and

Longer Life—Let us install you a set today.

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Complete Line of Sets and Parts

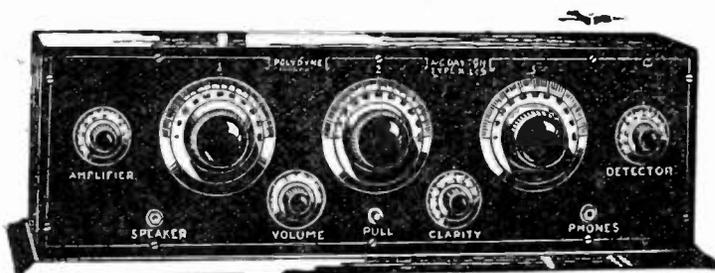
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|---|--|---|

Southern California Distributors

## Globe Accessories Corp.

307-309 W. Jefferson St.

LOS ANGELES

was up there, and going to the field radio laboratory he arranged for the tuning up of the SC-136 set, in hopes of calling up the pilot.

Operator "Pop" Leland started the dynamometer, threw some switches and began turning the dials. Presently the following ensued in the words of Mr. Jacobs:

"Hello—hello—hello," Leland called into a hand telephone in the most approved radio voice. "This is A-W-5 talking. Somebody wants to speak to Lieut. Johnson. Can you hear me, Johnson? Come in—come in—come in."

Then from the moving plane out of sight in the clouds, came faintly, but unmistakably, Lieut. Johnson's voice:

"Hello—hello—A-W-5, Johnson speaking. Can hear but cannot understand very well—seems to be a great deal of static. Try again."

"Pop" tried again. There was more turning of dials and talking, then I was handed the telephone and the head piece.

"Hello, Lieut. Johnson," I said, "can you hear us? If so, we'd like to know where you are just now and how the weather is up there."

Clearly, as if in the same room, Lieut. Johnson's voice came back. "We are flying over New Lebanon, Ohio, at an altitude of about 4,000 feet and are climbing steadily to get above the clouds. The clouds are very thick this afternoon, scattered from 3,000 to 6,000 feet. The thermometer registers 45 degrees which, with our suits and helmets, makes a comfortable flying temperature. We are traveling at a speed of 80 miles per hour. Now we have climbed to about 5,000 feet and are in clear sunshine. New Lebanon lies hidden below. Dayton lies to the east of us but we cannot see it. We are now over West Carrollton. Can you hear me?"

"I can hear you distinctly, Lieut. Johnson. With what kind of radio set is your plane equipped?"

Lieut. Johnson: "It is known as type SCR-134. The receiving unit is a super-heterodyne with VT-5 peanut tubes. The set is shielded in order that the ignition noises of the engine may be cut out and hearing made easier. We carry a trailing wire antenna with a 5-pound lead weight. The metal parts of the plane, the wires of the fuselage and the wings, are all bonded together and act as a counterpoise. In principle, it is the ordinary transmitter and receiver used the world over, but we have special adaptations to make it serviceable and practical for air use, worked out by the Signal Corps and tested at McCook Field. Does that answer your question?"

A little later, Johnson again came in: "We are now over Wilbur Wright Field and the Huffman Dam. Since talking to you we have flown over several towns and are now headed for McCook Field. If there are no bill collectors about, we'll come down."

We: "The coast is clear. This has been quite interesting, Lieut. Johnson, and it would seem that if one wants to interview a pilot while flying, one must work fast." Lt. Johnson answered: "You bet. There never was supposed to be anything slow about a pilot anyway."

I strolled out of doors. There were several planes in the sky. At the distance from the ground of even the lowest one, it was impossible to distinguish any sign of a human being in them. Even the sound of their motors came softened through the spaces.

## *Radiola, Polydyne, Californian, Equatone, Neutrodyne, Teledyne*

—all the *newest models*, completely equipped and ready for immediate delivery. Also a complete stock of high grade parts.

*Always come here for the best in Radio!*

**RADIO CORP. OF SOUTHERN CAL.**

Open Evenings 708 S. Broadway, Los Angeles Vandyke 8804

## The Invisible Aerial

One day a Washington telephone subscriber and a fan called WCAP requesting the services of a radio engineer, and one was sent to his house immediately.

The subscriber, who had just moved into a fine new city house, desired an invisible aerial. The expert asked why he did not use an inside loop. He was informed that, although the set might operate well with a loop antenna, the owner desired maximum distance, and consequently wanted an outside aerial. "But," he admonished, "it must not show; this house is the pride of both myself and the architect and we do not want unsightly aerials overhead."

Realizing the impracticability of installing a real aerial without its showing, the engineer climbed to the roof to look over the arrangement of the eaves and chimneys, hoping he could so string an aerial that it would not be seen from the street below. He soon found this impossible. Ready to give up, he was crawling down over the gutter, when he made a discovery. He descended, inspected the down spout and gutters all around the house, then climbed back and soldered the lead in to the down spout. Inside, he hooked up and tuned in several stations with fine results. He called the owner, who was delighted and wanted to see the aerial. "There isn't any," replied the expert. "You have a very fine copper gutter, completely insulated from the house by a slate roof, and other non-conductors; even the down spout leads into a terra cotta pipe, so I soldered a lead into the down spout just outside your library window, and there you are. Incidentally, it's probably the first invisible aerial," he added.

If you have a potentiometer connected across your dry "A" battery, make it a point always to disconnect the battery when you have finished listening in, or a considerable drain through the potentiometer winding will result. This is particularly important if the potentiometer is of comparatively low resistance. A panel switch affords the most convenient means of breaking the "A" battery circuit.

## Status of Broadcasting Stations Falling Off

(By Washington Radio News Service)

WASHINGTON, July 14.—A survey and a housecleaning of broadcasting stations completed by the Department of Commerce on July 1, eliminated a lot of "dead wood" stations, reducing the total number of broadcasters to 534, thirty-nine less than on July 1, last year, and fifty-five less than on June 1, this year.

Fans should not be alarmed, however, for fear that this popular practice is about to die out. Many of the stations eliminated simply failed to renew their licenses, and some will again apply for permission to broadcast, it is believed. Of the stations which dropped out, 53 were in Class A, and 29 in Class C. No Class B stations quit the air, and there are today 54 such, an increase of 12 over the number on June 1. There are also 377 Class A stations; 101, C, and 2 in the experimental Class D, still operating. Nevertheless, the peak of broadcasting, on May 1, 1923, totaled 592 stations, may never again be attained, although the total was only 3 below par, so to speak, on June 1, 1924, when 589 were on the air.

## T N T Super-Sensitive High Power Radio Crystal and Desert Cactus Cat-Whisker

Latest Startling Discovery in Radio! Only known mineral of its kind in the world! Endorsed by experts, including Govt. officials, as the World's Greatest Crystal Set.

Super-Sensitive at All Points. Not Injured by Heat, Dirt, Grease, or Handling.

162 Radio Dealers (95%) in San Francisco Bay District sell T N T. Test out all other makes of crystals, then try ours.

Sample T N T, with Desert Cat-Whisker, 50c Prepaid

A Clean-Up for Distributors. Ten Million Radio Owners Want T N T

Write for Attractive Prices

T N T PRODUCTS CO., 935 Phelan Bldg., San Francisco, Calif.

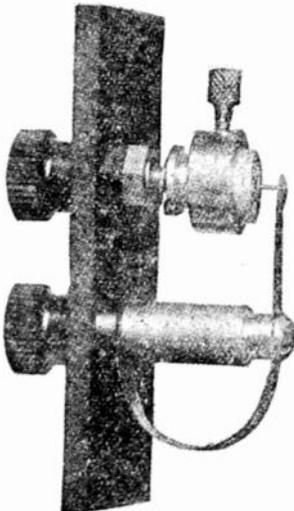
## Twelve New Broadcasters

### LIST OF (BROADCASTING) STATIONS LICENSED

Call	Class A Stations	Keys Frequency	Meters Wave Length	Watts Power
KFCL.	—Leslie E. Rice, Los Angeles, Cal.....	1270	236	500
KFLW	—Missoula Elec. Sup. Co., Missoula, Mont.	1280	234	5
KFQS	—Dickenson-Henry Radio Laboratories, Manitou, Colo.....	1220	246	10
KFQT	—Texas National Guard, Denison, Tex...	1190	252	10
KFQU	—W. Riker, Holy City, Calif.....	1280	234	100
KFQV	—Omaha Grain Exch. (Portable), Nebr..	1300	231	100
KFQW	—C. F. Knierlm, North Bend, Wash.....	1210	248	50
WDBY	—North Shore Congregational Church, Chicago, Ill.....	1160	258	500
WEBE	—Roy W. Waller, Cambridge, Ohio.....	1210	248	10
KFQX	—Alfred M. Hubbard, Seattle, Wash....	1290	233	250
WOAR	—Lundskow, Henry P., Kenosha, Wis....	1310	229	50
<b>TRANSFERRED FROM CLASS C TO CLASS A</b>				
WAAW	—Omaha Grain Exchange, Omaha, Neb..	1050	286	500
WBAA	—Purdue University, W. Lafayette, Ind...	1060	283	250
WLAP	—Wm. V. Jordan, Louisville, Ky.....	1050	286	20
WPAM	—Auerbach and Guettel, Topeka, Kans..	1090	275	100
<b>NEW CLASS B STATION</b>				
WNYC	—Dept. of Plant and Structures, N. Y....	570	528	1000

The "Mecca of Radiodom"—the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

### Murdock Radio Head Phones "Standard Since 1914"



## The Tanner Crystal Detector

The detector without a fault. Back-panel mounting, with two small projecting knobs which give every possible adjustment. One knob presents the entire surface of the crystal for contact; the other gives a micrometer two-way control on contact pressure. Solid gold catswhisker, phosper-bronze spring arm. All metal parts brass, heavily nickel-plated. Shipped with full instructions for panel mounting.

Price.....\$1.50

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Please write*

### C. D. TANNER CO.

528 West Washington

Los Angeles, Calif.

We Are Now in Our New Location

## 2135 WEST PICO STREET

More room, larger stock, increased facilities enable us to give you more satisfactory service.

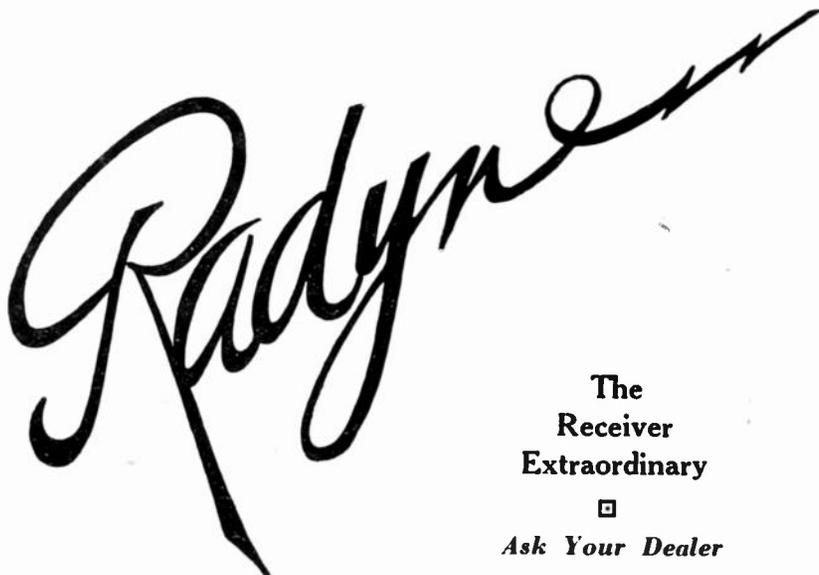
Call on us or phone us for demonstration  
of any set in your home.

Our repair department is again at your service.

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Phone BEacon 7439  
or BEacon 8848

### SOUTHERN CALIFORNIA RADIO CO.

The logo for Radync is written in a large, elegant, cursive script. The letters are thick and black, with a lightning bolt-like flourish extending from the top of the 'c'.

The  
Receiver  
Extraordinary



*Ask Your Dealer*

**The Wholesale Radio Electric Co.**

1111 Wall St., Los Angeles

FAber 3672

## Eliminate "B" Batteries?

By K. G. ORMISTON

Radio circles in both England and America are more or less excited over the prospect of discarding the high voltage "B" battery through the use of a four element tube and a newly developed circuit.

For several months past the circuit has been given widespread publicity in England, having been first announced by the technical editors of a radio journal, who developed the circuit and have called it the "Unidyne" principle. In America it is to be known as the "Solodyne" principle, both terms meaning "one force," and indicating that but one battery is used.

Experimentation with the circuit in England was not retarded by the lack of four-element tubes, as such tubes have been on the market there for some time. The original set, a two-tube regenerative affair, using only an "A" battery, was demonstrated to the press and prominent radio people with very satisfactory results, it being stated that WGY was received.

From all reports, a one tube set using the "Solodyne" principle, is equal in performance to the ordinary one-tube regenerative receiver using 3-element tube and "B" battery.

It would appear, therefore, that if this set is stable in its operation and lacks "tricky" characteristics, that we will presently find the "Solodyne" in use in this country. Provided, of course, that the tube manufacturers will market a four-element tube.

Now as to the principle itself. It is not correct to say that there is no "B" battery in the "Solodyne" circuit, because the "A" battery is in reality also the "B." No tube will function with zero voltage on the plate. There must be some plate potential, and in the "Solodyne," it is the voltage of the "A" battery. In the ordinary tube this would cause a tremendous reduction in the efficiency of the tube. In the "Solodyne" system, every effort is made to restore this lost efficiency.

First, an auxiliary grid is placed in the tube, in very close proximity to the filament. This grid is connected directly to the positive of the "A" battery, and being positively charged, therefore reduces the space charge within the tube and greatly lowers the resistance to the electron flow from filament to plate.

The circuit proper is very simple, every means being used to preserve and amplify the comparatively feeble plate current variations.

Among the claims made for the system, are the absolute lack of all tube and battery noises, and hence clearer and better reception of DX. The circuit is still in the experimental stage, however, but there are good prospects for its development through widespread research and experimentation and the ultimate practical application. Meanwhile, the real "experimenters" are "itching" for a four-element tube.

# International Radio Service

Under New Management

826 South Vermont

Service and Equipment

MR. A. ARMS  
Manager

MR. P. W. BROWN  
Radio Expert

Aerials Installed  
Complete Line of Sets and Parts  
Open Evenings

## INTERNATIONAL RADIO SERVICE

826 S. Vermont

Los Angeles, Calif.

Electrical Supplies, Repair Work and Installations

Se habla Espanol

On parle Francais

# Longer Life -- Better Results

## WITH THESE "A" BATTERIES

Too much care cannot be used in selecting an "A" Battery. Willard has built into Willard "A" batteries the essentials to give a steady flow of current. Internal and external leakage that cause noises and short circuits are not present in these batteries. Your set will operate at its best when you use a "Willard."



**Radio "A" Battery**  
Heavy plates. Threaded rubber insulation. All rubber case. Unusual capacity.

### All These Dealers Sell Willard Batteries

Burbank—John Null  
Ontario and Upland  
R. J. Tobey

Long Beach—A. C.  
Walker

Santa Ana, Orange,  
Fullerton — Orange  
County Ignition  
Works

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. Bevellard.

Torrance—Torrance  
Auto Electric Co.

Glendale—E. W. Cizek  
Co.

Santa Monica — Guy  
Hammond

Gardena—Gardena  
Battery & Ignition

San Pedro—Auto Elec-  
tric Service



**Radio "A" Battery**  
Wood case. Threaded rubber in-  
sulation. 90 amp. hr. capacity.

Los Angeles—Western Electric Co., any Radio Jobber or Dealer or any  
Willard Service Station.

10-12 A. M.  
PACIFIC TIME

# RADIO TIME TABLE

11- 1 Mountain Time  
10- 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	380	KH J	X	X	X	X										
Earl C. Anthony	500	Los Angeles	468	K F I	X	X	X	X										
Bible Institute	750	Los Angeles	380	K J S	X	X	X	X										
Angelus Temple	500	Los Angeles	278	K F S G	X	X	X	X										
So. Electric Co.	50	San Diego	244	K D P T	X	X												
Hale Brothers	500	San Francisco	423	K P O			X	X										
Tribune	500	Oakland	509	K L X	X	X												
Warner Bros.	250	Oakland	360	K L S					X									X
Gould	5	Stockton	360	K J Q	X	X												
Fallon & Co.	100	Santa Barbara	360	K F H J	X	X												
Guy Greason	10	Tacoma	360	K F E J			X	X										
Rhodes Co.	100	Seattle	455	K D Z E			X	X					X					
First Pres. Church	750	Seattle	360	K T W		X	X											
Meler & Frank	50	Portland	360	K F E C														X
Oregonian	500	Portland	492	K G W				X				X			X			X
Reynolds Radio	500	Denver	283	K L Z				X				X						X
News and Journal	500	Dallas	476	W F A A			X	X				X						X
Palmer School	500	Davenport	484	W O C			X	X				X						X
Oregonian	500	Portland	492	K G W				X				X						X
Federal Tel. Co.	500	Buffale	319	W G R				X				X						X
Sears-Roebuck	500	Chicago	345	W L S			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	12 00-12 30	12 30-1 00	12 00-12 30	12 30-1 00	12 00-12 30	12 30-1 00	12 00-12 30	12 30-1 00	12 00-12 30	12 30-1 00	12 00-12 30	12 30-1 00
L. A. Times	500	Los Angeles	396	KH 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														
Warner Bros.	250	San Francisco	360	K L S	X	X												
Hale Bros.	500	San Francisco	423	K P O														
General Elec.	1000	Oakland	312	K G O														
Herold Lab'y	50	San Jose	360	K Q W														
Guy Gresson	10	Tacoma	360	K F E J														
Rhodes Co	100	Seattle	270	K D Z E														
Honolulu Star Bul	100	Honolulu	360	K D Y X	X	X												
Honolulu Adver.	500	Honolulu	360	K G U														
Reynolds Radio	500	Omver	283	K L Z														
Pyles Nichols	10	Denver	360	K D Z Q														
News and Journal	500	Dallas	476	W F A A	X	X												
Palmer School	500	Davenport	484	W Q C														
Star	500	Kansas City	411	W D A F														
News	500	Detroit	517	W W J														
Radio Corp. of Am.	500	New York	455	W J Z														
Herald	1000	Calgary	420	C F A C														
Federal Tel. Co.	500	Buffalo	319	W G R	X	X	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	X	X	X	X	X	X	X	X	X
Sears-Roebuck	500	Chicago	345	W L S	X	X												
Calumet B. Pdr	500	Chicago	448	W Q J														

## 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	KH J					X	X								
Angelus Temple	500	Los Angeles	278	KF SG	X	X	X											
Electric Light Sup.	100	Los Angeles	360	KN X					X	X								
Echophone Radio	100	Long Beach	234	KF ON	X	X	X											
So. Electrical	50	San Diego	244	KD PT				X										
Hale Bros	500	San Francisco	423	KPO				X	X	X								
S. F. Examiner	150	San Francisco	360	KUO				X	X	X								
Tribune	500	Oakland	509	KLX				X			X							
General Elec. Co.	1000	"	312	KGO				X			X							
R. H. Horn	50	San Luis Obispo	212	KF BE		X	X											
Portable Wireless	100	Stockton	360	K W G	X	X												
Kimball-Upson	100	Sacramento	283	K FBK				X	X					X	X			X
First Pres. Church	750	Seattle	360	KT W		X	X											
Post-Intelligencer	100	Seattle	270	KF J C				X										
Rhodes Co	100	Seattle	270	K DZE				X	X	X				X	X			X
Oregonian	500	Portland	492	KGW				X						X				X
Deseret News	500	Salt Lake City	360	K ZN				X	X									
Reynolds Radio	500	Denver	283	KLZ						X					X			X
Honolulu Adver.	500	Honolulu	360	KGU				X	X					X	X			X
Star-Telegram	500	Fort Worth	476	WBA P		X	X											
Palmer School	500	Davenport	484	WOC				X						X				
Daily News	500	Chicago	448	WMA Q				X		X				X	X			X
Star	500	Kansas City	411	WDA F				X	X					X	X			X
Free Press	500	Detroit	517	WCX	X	X		X	X	X				X	X			X
News	500	Detroit	517	WW J				X	X	X				X	X			X
Drake Hotel	1000	Chicago	360	WDA P				X		X				X	X			X
Radio Cor. of Am.	500	New York	455	W J Z				X	X	X				X	X			X
Herald	1000	Calgary	420	C F A C				X	X	X				X	X			X
Federal Tel. Co.	500	Buffalo	319	WGR				X	X	X				X	X			X
Westinghouse	1000	Pittsburg	328	KDKA				X	X	X				X	X			X
Westinghouse	1000	Springfield	337	WBZ				X										
Sears-Roebuck	500	Chicago	345	WLS				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

# BUY A CROSLEY

## The Three Most Popular Sets

### TRIRDYN SPECIAL

**Artistic—**

It will beautify your home.

**Efficient—**

It gives service.

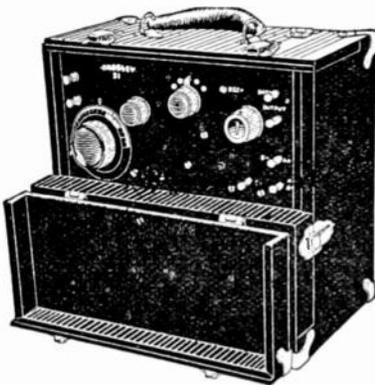


Trirdyn Special—\$82.50

### TRIRDYN 3R3

A three-tube set with the efficiency and volume of a five-tube set.

Price \$71.50.



51-P, \$27.50



### CROSLEY 51-P

Its popularity remains.. Take it with you to the beach. To the mountains. Or listen in at your home. Price \$27.50.



## COOK-NICHOLS CO.

411 South San Pedro St.

FABer 4487—TRinity 1350

Los Angeles, Cal.

482 South Fair Oaks Ave.

Fair Oaks 1578

Pasadena, Cal.

WHOLESALE ONLY



# ERLA

## TO THE RADIO DEALERS:

*Place Your Advance Orders for ERLA KNOCK DOWN  
KITS with Your Jobber and Insure Prompt  
Delivery—THIS FALL*

HAVE YOU ORDERED THE NEW  
ERLA DISPLAY BOARD

## Globe Commercial Co.

Southern California Office:  
Room 205 Radio Bldg., 1113 Wall Street, Los Angeles

## When on Your Vacation

and

you are away from all the big Broadcasting stations—then is when that portable set you made has to work 100%. It will only do this when made with **GOOD PARTS**. We carry only the best.

*We SERVICE All Makes of Radio 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
Bible Institute	750	Los Angeles	360	K J S	X	X									
L. A. Times	500	Los Angeles	395	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									
Electric Light Sup.	100	Los Angeles	360	K N X											
Echaphone Radio	100	Long Beach	234	K F O N		X	X								
Hale Brothers	500	San Francisco	423	K P O		X	X								
S. F. Exanimer	150	San Francisco	360	K U O		X	X								
Maxwell Electric	50	Berkeley	278	K R E											
Tribune	500	Oakland	509	K L X		X									
General Electric	1000	Oakland	312	K G O			X								
Kimball & Upson	100	Sacramento	283	K F B K		X	X								
Fallan & Co.	100	Santa Barbara	260	K F H J		X	X								
Radio Den	10	Santa Ana	248	K F A W		X	X								
Southern Elect.	50	San Diego	264	K D P T		X	X								
Nelson Radio Sup.	10	Phoenix	238	K F C B	X		X								
McArthur Bros	100	Phoenix	360	K F A D		X	X								
Love Elect. Co.	10	Tacoma	380	K M O		X	X								
Mullens Elect. Co.	50	Tacoma	252	K G B		X	X								
N. W. Radio Ser.	50	Seattle	283	K J R		X	X								
Excel. Motor Co.	100	Seattle	360	K H Q			X								
First Pres. Church	750	Seattle	360	K T W	X	X									
Star Electric	50	Seattle	283	K F H R		X	X								
Oregonian	500	Portland	492	K G W	X	X	X								
Hallock & Watson	50	Portland	380	K G G		X	X								
Meier & Frank	50	Portland	248	K F E C		X	X								
Apple Cy. Rad. Cfb	10	Hood River	360	K O P		X									
Adler's Music Store	5	Baker, Ore	360	K F D A	X	X									
Boise High School	150	Boise, Ida	270	K F A U		X	X								
Bunkerhill-Sul.Co.	10	Kellogg, Ida.	360	K F E Y		X									
Telegram	100	Salt Lake	360	K D Y L		X	X								
Reynold's Radio	500	Denver	283	K L Z		X	X								
Western Radio	50	Denver	360	K F A F		X	X								
Pyle & Nichols	10	Denver	360	K Z D Q	X	X									
Fitzsimmons Hospital		Denver	542	A A 3											
Sparka Hi School	10	Sparks, Nev	226	K F F R											
Westinghouse El	1000	Hastings, Neb.	341	K F K X											
Star-Telegram	500	Fort Worth	478	W B A P		X	X								
News and Journal	500	Dallas	478	W F A A		X	X								
Palmer School	500	Davenport	484	W O C	X	X	X								
W. O. W.	500	Omaha	526	W O A W	X	X	X								
Daily News	500	Chicago	448	W M A Q		X	X								
Post Dispatch	500	St. Louis	548	K S D	X	X									
Westinghouse	1000	Chicago	538	K Y W		X	X								
Sweeney School	500	Kansas City	411	W H B		X	X								
Star	500	Kansas City	411	W O A F		X	X								
Drake Hotel	1000	Chicago	390	W O A P	X	X	X								
Crosley Mfg. Co.	500	Cincinnati	423	W L W	X	X	X								
Albertan Pub. Co.	250	Calgary, Can.	410	C H B C	X	X	X								
Oetroit Free Press	500	Detroit	517	W C X		X	X								
Radio Co. of Am.	500	New York	455	W J Z	X	X	X								
John Wansmaker	500	Philadelphia	609	W O O	X	X	X								
Federal Tel. Co.	500	Buffalo	319	W G R		X	X								
El Buen Tono	500	Mexico City	425	C Y B		X	X								
El Universal	500	Mexico City	600	C Y L		X	X								
Willard Battery	1000	Cleveland	390	W T A M		X	X								
Westinghouse	1000	Pittsburg	328	K O K A		X	X								
Canadian Nat. Ry.		Ottawa	435	C K H		X	X								
Chamber of Com.	50	El Paso	268	W D A H		X	X								
Calumet B. Pdr.	500	Chicago	449	W Q J	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 re-tailing 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.

## WATCH FOR DISPLAY OF NEW MODELS

Dealers — write for attractive proposition on the Work-Rite Neutrodyne sets and parts.  
Licensed under Hazeltine's Patents No. 1450080.

# Workrite Manufacturing Co.

CLEVELAND, OHIO

Western Branch

239 So. Los Angeles St.

Telephone MAin 5884

8-10 P. M.  
PACIFIC TIME

# RADIO TIME TABLE

8-11 Mountain Time  
19-12 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	9 00-9 30	9 30-10 00	8 00-8 30	8 30-9 00	9 00-9 30	9 30-10 00	8 00-8 30	8 30-9 00	9 00-9 30	9 30-10 00	8 00-8 30	8 30-9 00	9 00-9 30
L. A. Herald	500	Los Angeles	469	Herald	X	X		X	X		X	X		X	X		X	X	
Bible Institute	750	Los Angeles	360	K J S	X	X				X	X		X	X		X	X		
L. A. Times	500	Los Angeles	395	K H J	X	X	X	X		X	X		X	X		X	X		
L. A. Examiner	500	Los Angeles	469	Examin'r				X	X				X	X		X	X		
E. C. Anthony	500	Los Angeles	489	K F I	X	X			X	X			X	X		X	X		
Angelus Temple	500	Los Angeles	278	K F S G	X	X	X						X	X		X	X		
Echophone Radio	100	Long Beach	234	K F O N				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	X		
S. F. Examiner	150	San Francisco	360	K U O						X	X								
Warner Bros	250	San Francisco	380	K L S					X	X									
Oakland Tribune	500	Oakland	509	K L X		X	X	X	X	X		X	X		X	X	X		
Maxwell Electric	50	Berkeley	275	K R E					X	X		X	X						
General Elec. Co	1000	Oakland	312	K G O				X	X	X		X	X			X	X		
T. Selfert	100	Bakersfield	380	K D Z B					X	X			X	X		X	X		
Portable Wireless	100	Stockton	380	K W G			X	X							X	X			
Herrold Lab'y	50	San Jose	360	K Q W						X	X				X	X			
Kimball-Upson	100	Sacramento	283	K F B K					X	X									
Gould	500	Stockton	380	K J Q				X	X				X	X					
Fallon & Co	100	Santa Barbara	380	K F H J						X	X				X	X			
Southern Elec. Co	50	San Diego	244	K D P T		X	X	X								X	X		
R. H. Horn	80	San Luis Obispo	242	K F B E						X	X					X	X		
Drake Radio	5	San Luis Obispo	234	K F N V											X	X	X		
Cope & Johnson	500	Salt Lake	268	K F P T			X	X	X		X	X	X		X	X	X		
Univ. of Ariz	150	Tucson	360	K F D H					X				X						
Nielson Rad. Sup	10	Phoenix	238	K F C B										X		X	X		
Post-Intelligencer	100	Seattle	270	K F J C				X	X	X		X	X	X	X	X	X		
Excelsior Motor	100	Seattle	380	K H O			X	X	X		X	X	X	X	X	X	X		
Rhodes Co	500	Seattle	455	K F O A			X	X	X		X	X	X	X	X	X	X		
First Pres. Church	750	Seattle	380	K T W	X	X	X												
Star Electric	50	Seattle	283	K F H R				X	X				X	X		X	X		
Mullens Elec.	50	Tacoma	252	K G B				X	X				X	X		X	X		
Oregonian	500	Portland	492	K G W		X	X			X	X		X	X		X	X		
Hallock & Watson	50	Portland	360	K G G						X	X					X	X		
Stubbs Elect	100	Portland	360	K G N												X	X		
Moler & Frank	50	Portland	248	K F E C									X	X					
Apple Cy Rad. Cl	10	Hood River	380	K Q P						X	X			X					
Belas High School	150	Boise, Ida	270	K F A U						X	X				X	X			
Bunkerhill-Sul. Co.	10	Kaliogg, Ida	380	K F E Y				X					X			X			
Reynolds Radio	500	Denver	283	K L Z	X	X													
Pyle & Nichols	10	Denver	330	K D Z Q					X	X				X	X				
Westinghouse El.	1000	Hastings, Neb.	341	K F K X			X	X					X	X		X			
Star Telegram	500	Fort Worth	478	W B A P		X	X	X	X		X	X		X	X		X		
Dallas News	500	Dallas, Tex	478	W F A A	X	X			X	X			X	X		X			
Palmer School	500	Davenport	484	W O C	X	X		X	X		X	X		X	X		X		
Post Dispatch	500	St. Louis	548	K S D						X	X								
Star	500	Kansas City	411	W O A F		X	X		X	X			X	X		X	X		
Woodmen of W.	500	Omaha	528	W O A W					X	X			X	X		X	X		
Westinghouse	1000	Chicago	536	K Y W					X	X		X	X	X		X	X		
Drake Hotel	1000	Chicago	380	W O A P					X	X		X	X	X		X	X		
Crosley Mfg. Co.	500	Cincinnati	423	W L W					X	X		X	X	X		X	X		
Detroit News	500	Detroit	517	W W J					X	X		X	X	X		X	X		
Radio Cor. of Am.	500	New York	453	W J Z			X		X			X	X	X		X			
Herald	1000	Calgary	420	C F A C	X	X		X	X				X	X		X			
W. W. Grant	500	Calgary	440	C K C X				X	X										
Federal Tel. Co	500	Buffalo	319	W G R					X	X									
El Universal	500	Mexico City	500	C Y L					X	X					X	X			
El Buen Tone	500	Mexico City	425	C Y B									X	X		X			
Sweeney School	500	Kansas City	411	W H B		X	X												
Edgewater Beach	1000	Chicago	370	W G N				X	X	X		X	X	X		X	X		
Westinghouse	1000	Springfield	537	W B Z					X	X		X	X	X		X	X		
Westinghouse	1000	Pittsburg	328	K O K A				X	X	X		X	X	X		X	X		
Sears-Robuck	800	Chicago	243	W L S												X	X		
Calumet B. Pdr.	500	Chicago	448	W Q J									X	X	X	X	X		

# Radio Supplies

Most Complete Line on the Coast

Monodyne Tube Set, complete.....	\$27.50
Sterling Voltmeter.....	2.75
Filko-stat.....	2.00
Accuratune Dials.....	3.75
Erla Reflex Transformers.....	5.00
WD-11, WD-12 Tubes, large stock.....	5.00
UV-199 and C-299, 201-A, 301-A Tubes.....	5.00
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
T. N. T. Superheterodyne Transformer.....	Each 4.00
Tungar Charges, 50 cyc., 2 amp.....	22.50

## Sleeper Monotrol

## The Long Distance Set

Complete with Tubes, Batteries, Loud Speaker and Loop Ariel, \$145.00

No. 65 Federal Transformer.....	7.00
Mercury Table Talker.....	8.50
Parts for Workrite 5-Tube Set.....	70.00

### SPECIAL SALE OF RADIO BOOKS

	Reg.	Sale
Wireless Telegraphy, by Bucher.....	\$2.25	\$1.15
Experimenters' Manual, by Bucher.....	2.25	1.15
Wireless Stations, by Edelman.....	3.00	1.50
Radio Phone Receiving.....	1.50	1.00
Radio Instruments and Measurements.....	2.25	1.00
Radio for Everybody.....	1.50	.90

We have for Immediate Delivery

Erla Parts—Gilfillan, Sleeper and Remler Parts  
 Acme Transformers  
 Amstran Transformers  
 Bradleystad and Bradley Leak, \$1.85  
 Full Line Transmitting Parts  
 Citizens Call Books, 50c  
 Radio News Handbooks, \$1.00  
 Cabinets, built to order, \$3.50 up

## RADIO SUPPLY CO.

Open Evenings Till 9 P. M.  
 920 South Broadway

Telephone VAndike 6063  
 Los Angeles, California

*Our New and Complete Price List Now Ready*



# Mr. Dealer!

Write for our monthly Dealer Bulletin, containing information and prices on the newest and best in Radio.

## IN STOCK NOW

Kodel

Spartan Speaker

Acme Transformers

Red Seal Phones

(List formerly \$8—Now \$6)

Marcy & Stevens Tools

Univernier Dials

Yale Crystal Rectifier

Mar-Co Products

Erla Apparatus

Simplex D. X. Tuner

Timmons Talkers

NEW Manhattan Speakers

Benjamin Sockets

Automatic Template



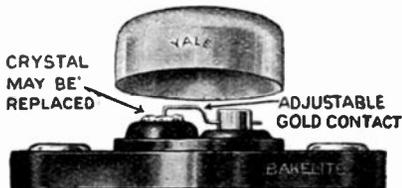
WHOLESALE DISTRIBUTORS

# YALE RADIO ELECTRIC CO.

4816-18 South Vermont

## Yale Crystal Rectifier

(Semi-Fixed)



### BEST FOR REFLEX

Extremely Sensitive  
More Volume  
Good DX Reception

TESTED AND GUARANTEED

At All Dealers—\$1.25

Jobbers and Dealers—Write

Exclusive Distributors

## YALE RADIO ELECTRIC CO.

4816-4818 So. Vermont Ave.

Los Angeles, Calif.

# KHJ—Los Angeles Times—395 Meters

Times Building, First and Broadway, Los Angeles. Owned and Operated by Los Angeles Times  
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.

WEEK COMMENCING JULY 27, 1924

## SUNDAY, JULY 27—

10:00 a. m.

Sermon from KHJ studio by Dr. C. H. Culbertson, pastor of the Plymouth Congregational Church.

10:30 to 12:30 p. m.

Organ recital and entire religious service from the First Methodist Episcopal Church; Arthur Blakeley, 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 Blakeley, organist.

6:00 to 10:00 p. m.

Program presented through the courtesy of the West Coast Theaters, arranged by Mr. Spier.

## MONDAY, JULY 28—

12:30 to 1:15 p. m.

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

## TUESDAY, JULY 29—

12:30 to 1:15 p. m.

Program presented through the courtesy of Piggly-Wiggly.

2:30 to 3:30 p. m.

Hollywood Bowl program sponsored by Mrs. J. J. Carter, presenting Bess Daniels, pianist.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel.

6:45 to 7:30 p. m.

Children's program presenting Prof. Walter Sylvester Hertzog. The weekly visit of the Sandman and Queen Titania. Frances Bards, 9 years old, reader. Bedtime story by Uncle John.

6:00 to 10:00 p. m.

Program presented through the courtesy of the B. T. Spencer Wallpaper and Paint Store of Anaheim, arranged by Gladys Llewellyn and the Sunkist Orchestra.

10:00 to 11:00 p. m.

Art Hickman's dance orchestra from the Biltmore Hotel.

## WEDNESDAY, JULY 30—

12:30 to 1:15 p. m.

Program of music and news items. Fred C. McNabb, speaker.

2:30 to 3:30 p. m.

Silent.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel.

6:45 to 7:30 p. m.

Program presenting Prof. Walter Sylvester Hertzog. Dick Winslow, screen juvenile. Bedtime story by Uncle John.

6:00 to 10:00 p. m.

Program presented through the courtesy of the Hollenbeck Chanters; an evening of old-fashioned songs. Dr. Mars Baumgardt, lecturer. Art Hickman's dance orchestra from the Biltmore Hotel.

10:00 to 11:00 p. m.

Art Hickman's dance orchestra from the Biltmore Hotel.

## THURSDAY, JULY 31—

12:30 to 1:15 p. m.

Program of news items and music.

2:30 to 3:30 p. m.

Hollywood Bowl program, sponsored by Mrs. J. J. Carter; presenting Bess Daniels, pianist.

6:00 to 6:30 p. m.

Art Hickman's concert orchestra from the Biltmore Hotel.

6:45 to 7:30 p. m.

Children's program presenting Prof. Walter Sylvester Hertzog. The weekly visit of Dickie Brandon, screen juvenile. Bedtime story by Uncle John.

6:00 to 9:00 p. m.

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

9:00 to 10:00 p. m.

Program presenting Al Schiller, pianist. "Radio Red's" Hawaiian Trio.

10:00 to 11:00 p. m.

Art Hickman's dance orchestra from the Biltmore Hotel.

## FRIDAY, AUGUST 1—

12:30 to 1:15 p. m.

Program presenting C. J. Frank, baritone.

2:30 to 3:30 p. m.

Hollywood Bowl program, sponsored by Mrs. J. J. Carter; presenting Bess Daniels, pianist.

6:00 to 6:30 p. m.

Art Hickman's Concert Orchestra from the Biltmore Hotel.

6:45 to 7:30 p. m.

Children's program presenting Prof. Walter Sylvester Hertzog. The weekly visit of Richard Headrick, screen juvenile. Bedtime story by Uncle John.

6:00 to 10:00 p. m.

Program presented through the courtesy of the Heilman Commercial Trust and Savings Bank, arranged by A. K. Berkland. Charlie Wellman, tenor, and Bill Hatch, pianist. "Music Makers."

10:00 p. m.

## SATURDAY, AUGUST 2—

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.

6:45 to 7:30 p. m.

Children's program presenting Prof. Walter Sylvester Hertzog. Bedtime story by Uncle John.

6:00 to 10:00 p. m.

Program presented through the courtesy of the Martin Music Co., arranged by J. Howard Johnson.

10:00 to 11:00 p. m.

Art Hickman's dance orchestra from the Biltmore Hotel.



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Los Angeles Evening Herald:	5:00 to 6:30 p. m.	Daily except Sunday
	6:00 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, JULY 27—

10:00 to 10:45 p. m.	Los Angeles Church Federation Service.
6:45 to 8:00 p. m.	Crosby Sisters and Sigma Pi Violin Trio.
8:00 to 9:00 p. m.	Ambassador Hotel Concert Orchestra.
9:00 to 10:00 p. m.	Examiner—Wes Bennett's Orchestra.
10:00 to 11:00 p. m.	Packard Six Orchestra.

## MONDAY, JULY 28—

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

## TUESDAY, JULY 29—

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—Highland Park Six Orchestra.
10:00 to 11:00 p. m.	Lawrence Lambert Concert Co.

## WEDNESDAY, JULY 30—

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 8:00 p. m.	Detective stories and Vocal Concert.
9:00 to 10:00 p. m.	Examiner—Penwomen of America.
10:00 to 11:00 p. m.	Hollywoodland Community Orchestra.
11:00 to 12:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

## THURSDAY, JULY 31—

5:30 to 6:00 p. m.	Examiner News Bulletins.
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—Kentucky Colonels' Orchestra.
10:00 to 11:00 p. m.	Instrumental and Vocal Concert by Marguerite Bitter and Patsy Forsythe.

## FRIDAY, AUGUST 1—

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 8:00 p. m.	Aeolian Organ Recital.
9:00 to 10:00 p. m.	Examiner—Grace Eaton Dow, arranging concert.
10:00 to 11:00 p. m.	Pupils of Myra Belle Vickers in vocal recital.
11:00 to 12:00 p. m.	Ambassador Hotel Coconut Grove Orchestra.

## SATURDAY, AUGUST 2—

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 8:00 p. m.	Hennessy's Paramount Players.
8:00 to 9:00 p. m.	Los Feliz Trio.
9:00 to 10:00 p. m.	Examiner—Ida May Wall's 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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## Evening Herald, Los Angeles

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

WEEK BEGINNING JULY 27, 1924

MONDAY, JULY 28—

8:00 to 9:00 p. m. Evening Herald Radiolians. Popular dance music. Corrine Jackson, contralto; Thos. Smith, pianist.

WEDNESDAY, JULY 30—

8:00 to 9:00 p. m. Wright's Rejuvenators. Popular dance orchestra. Marjorie Lake, female baritone.

FRIDAY, AUGUST 1—

8:00 to 9:00 p. m. Program presented by Carl Edward Hatch.

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SUNDAY—JULY 27—

10:45 to 12:30 noon. Regular services of the Church of the Open Door, including sermon by Dr. French E. Oliver. Mr. Ernest P. Burley, tenor soloist. Male quartet; Miss Evelyn B. Palmer, organist.

6:00 to 6:45 p. m.

Radio Vesper Service with sermon by Rev. Keith L. Brooks. Mrs. Fern Barton, organist; Mr. A. H. Ramseier, baritone soloist. Sermon by Dr. French E. Oliver. Mr. Robert Hoobyar, tenor soloist; male quartet; Miss Evelyn B. Palmer, organist.

8:00 p. m.

TUESDAY, JULY 29—

8:00 to 9:00 p. m. Special evangelistic services. Sermon by Dr. French E. Oliver. Special music.

THURSDAY, JULY 31—

8:00 to 9:00 p. m. Program arranged by courtesy of the Harmony Quartet (Messrs. Edward Hamm, Henry S. Foth, John H. Richert and Herbert C. Richert), assisted by Mr. Oscar Walton, organist and accompanist.

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- SUNDAY, JULY 27—**  
 10:30 to 12:30 p. m. Complete auditorium service. Triple male quartet. Children's chorus. Mr. and Mrs. E. C. Mills in gospel songs. 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. Rev. C. G. Emanuel, Swedish Baptist evangelistic singer. Roy Reid Brignall, organist.  
 7:00 to 9:30 p. m. Special musical hour featuring the Silver Band, Temple Choir, Isabelle Wilson-Corning, soprano; Agnes Pearson, flutist, and Alfred C. Green, lyric tenor. Followed by great salvation sermon and altar call by Aimee Semple McPherson.  
 Organ recital by Roy Reid Brignall with assisting artists.  
 10:00 p. m.
- TUESDAY, JUNE 29—**  
 3:30 to 4:30 p. m. Organ recital and program through the courtesy of Esther Fricke Green, organist, assisted by Ruth Boesch Woods, soprano, and Sarah Karcher, violinist.  
 6:30 to 7:30 p. m. Children's Kozy Hour program presented by Harry James Beardsley (Cousin Jim) and assisting artists. Eugene Lamb, pianist.
- WEDNESDAY, JULY 30—**  
 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 shut-in, by Aimee Semple McPherson.  
 6:30 to 7:30 p. m. Children's Kozy Hour program presented through the courtesy of Mrs. Edward Hughes of Eagle Rock and her two little daughters, Mary Elizabeth and Helen, with assisting artists.
- THURSDAY, JULY 31—**  
 3:30 to 4:30 p. m. Organ recital and program presented through the courtesy of B. Earnest Ballard, organist, assisted by Margaret Kennedy, lyric soprano, and Harold Lloyd, tenor.  
 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 presented by Carl Edward Hatch, violinist, and assisting artists. Courtesy of the Butts Music Company.  
 10:00 to 11:00 p. m. Organ recital and program presented through the courtesy of Esther Fricke Green, organist, with assisting artists.
- FRIDAY, AUGUST 1—**  
 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 Crusader's meeting. Address by Judge Carlos S. Hardy of the Superior Court. Evangelistic sermon by Aimee Semple McPherson. Music by the Silver Band. Ada Lantz, soprano. Auxiliary revival chorus.  
 9:15 to 10:00 p. m. Gray Studio program presented through the courtesy of Maude Reeves Bernard and artist pupils.  
 10:00 to 11:00 p. m. Organ recital and program presented through the courtesy of B. Earnest Ballard.
- SATURDAY, AUGUST 2—**  
 3:30 to 4:30 p. m. Children's studio program.  
 7:30 to 9:15 p. m. Auditorium service. Sermon on divine healing by Aimee Semple Pherson. Music by the Temple Choir. Marion McGlashen Muller, Salvation Army soloist. Sarah Karcher, violinist.  
 9:15 to 10:00 p. m. Gray Studio program, featuring the Temple Choir.

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WEDNESDAY, July 30—About 7:00 p. m.

THURSDAY, July 31—Between 2:30 and

SATURDAY, Aug. 2—About 7:00 p. m.



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## DAILY—

3:00 to 5:00 p. m. Baseball, all leagues (except Sunday and Monday)  
7:00 to 7:30 p. m. News Items, U. S. Weather Bureau reports, market and financial news (except Sunday).

## SUNDAY—JULY 27—

9:30 to 10:00 p. m. Evening church service; address by Rev. John Stephens of the First Methodist Church of Oakland; music by members of the Church choir, before and after the address.

## MONDAY, JULY 28—

8:00 to 10:20 p. m. Educational talks by members of the summer session faculty at the University of California, and music by the Elder Trio, Scott Elder, violinist; Winston Petty, cellist, and Grace Jurges, pianist. The program will be broadcast from Stephens Union Hall at the University of California over a private leased wire through Radio KLX.

## WEDNESDAY, JULY 30—

8:00 to 10:20 p. m. Studio program and orchestral and organ selections by the American Theater, broadcast directly from the theater pit over a private leased wire through KLX. Studio program: 1. Baritone Solos—(a) Invictus (Huhn), (b) The Bandolero (Leslie Stuart), (c) It Is Enough, from "Elijah" (Mendelssohn)—Byron Mills, baritone. 2. Recitation by Fern Brabandt, 4-year-old reader. 3. Tenor solos—(a) Heart of Gold (Manney), (b) At Dawning (Cadman), (c) The Prayer Perfect (Stenson)—Leon Mills, tenor. 4. Tenor and baritone duets—(a) The Garden of Your Heart (Dorol), (b) Solonno in Quest'ora, from "La Forza del Destino" (Verdi), Leon and Byron Mills. 5. Orchestral selections (to be announced), played by the American Theater Orchestra and broadcast directly from the orchestra pit in the theater over a private leased wire through KLX. 6. Baritone solos—(a) Within a Garden Rosary (Hildach), (b) Because (d'Hardelot)—Byron Mills. 7. Tenor and baritone duets—(a) Serenade (Schubert), (b) So Thou Lifest Thy Petition (Stainer), Leon and Byron Mills. 8. Tenor solos—(a) If With All Your Hearts (Mendelssohn), (b) The Star (Rogers), (c) Tell Her I Love Her So (De Faye), Leon Mills. 9. Organ selections played by the American Theater organ and broadcast over a private leased wire from the theater through KLX.

## FRIDAY, AUGUST 1—

8:00 to 10:20 p. m. Studio program and orchestral and organ selections by the American Theater, broadcast directly from the orchestra pit of the theater over a private leased wire through KLX. Studio program: 1. Instrumental selections—(a) Sweet Lillahua, (b) Hono, Hono, Hawai'i, Paia's Hawaiians. 2. Vocal solos—(a) Rosary (Nevin), (b) Carry Me Back to Old Virginny, (c) Sevra il Sen (Bellini), Mms. Dorothy Raegan Talbot, coloratura soprano. 3. Instrumental solos—(a) I Love You, Honolulu, (b) It Ain't Goin' to Rain No More, Paia's Hawaiians. 4. Vocal solos—(a) Last Rose of Summer (Flowtow), (b) Logie O' Luchan (Scotch Folk song), (c) Pearl of Brazil, from the opera of the same name (Bizet), Mms. Dorothy Raegan Talbot. 5. Instrumental selections—(a) One, Two, Three, Four, (b) Hawaiian Medley, Paia's Hawaiians. 6. Overture by the American Theater Orchestra, Owen Sweeten, directing, broadcast direct from the orchestra pit of the theater over a private leased wire through Radio KLX. 7. Instrumental selections—(a) Alice March, (b) Nancy, Paia's Hawaiians. 8. Vocal solos—(a) Selected, Donald King, baritone. 9. Instrumental selections—(a) Nolo lulu Tomboy, (b) Aloha, Paia's Hawaiians. 10. Organ recital by Clement Barker on the American Theater organ, broadcast directly from the theater over a private leased wire through Radio KLX.

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GENERAL ELECTRIC COMPANY (312 Meters). OAKLAND, CALIFORNIA

WEEK OF JULY 27, 1924

- SUNDAY, JULY 27—**  
3:30 p. m. Concert by KGO Little Symphony Orchestra and soloists, Carl Rhodehamel conducting.
- MONDAY, JULY 28—**  
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. Course in Agriculture, Spanish, Music, Economics, and Literature.
- TUESDAY, JULY 29—**  
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. Arion Trio; KGO Mixed Quartette; Claire Harsha Upshur, soprano; Mary Groom Richards and Gwynfi Jones, contralto and tenor duet; steel and Spanish guitar duet; Richard Lundgren, basso; Boruck and Tarleton, vaudeville sketch; Joyce Holloway Barthelson, pianist; Claire Harsha Upshur and Mary Groom Richards, soprano and contralto duet; Gwynfi Jones, tenor; Mary Groom Richards, contralto; Claire Harsha Upshur and Gwynfi Jones, soprano and tenor duet; Margaret Avery, 'cellist; Gwynfi Jones and Richard Lundgren, tenor and baritone duet; vocal trio.
- 10:00 p. m. to 1:00 a. m. Henry Halstead's Hotel St. Francis Dance Orchestra, San Francisco.
- WEDNESDAY, JULY 30—**  
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, California.  
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, JULY 31—**  
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 drama, "The Great Divide," presented by KGO Players under direction of Wilda Wilson Church. Music by Towler Trio.
- FRIDAY, AUGUST 1—**  
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, AUGUST 2—**  
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; Robert E. Saxe, tenor; Bay City Male Quartet; Margaret Avery, 'cellist; Clarence H. Oliver, baritone; Male Trio; Ruth Collins, soprano; Joyce Holloway Barthelson, pianist; Carl Anderson, tenor; Josephine Holub, violinist; Carl Anderson and Clarence H. Oliver, tenor and baritone duet; George Madison, basso-profundo;  
10:00 p. m. to 1:00 a. m. Henry Halstead's Hotel St. Francis Dance Orchestra, San Francisco.

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# KGO—Pacific Broadcasting Station

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

TUESDAY, JULY 29—8:00 P. M.

- Instrumental Selections—(a) Selections from "Lohengrin" (Wagner); (b) Lullaby from Arion Trio  
"Jocelyn" (Godard)
- Vocal Selections—(a) Ciribiribin (Neapolitan); (b) Hail, Smiling Morn (Spofforth) KGO Mixed Quartette
- Claire Harsha Upshur, Soprano; Gwynfi Jones, Tenor; Mary Groom Richards, Contralto; Richard Lundgren, Bass; Joyce Holloway Barthelson, Accompanist.
- Soprano Solos—(a) Una voce poco fa (Rossini); (b) Melba Waltz (Arditi) Claire Harsha Upshur
- Duet for Contralto and Tenor—Still As the Night (Gotze) Mary Groom Richards, Gwynfi Jones  
Hawaiian Melodies Joseph Lario, Steel Guitar; Jack Andrade, Spanish Guitar
- Bass Solos—(a) O'er the Billowy Deep (Taylor); (b) Asleep in the Deep Richard Lundgren  
(Petrie)
- Vocal Selection—My Old Kentucky Home KGO Mixed Quartette
- Vaudeville Sketch Borack and Tarleton
- Piano Solo—The Fountain (Drouillet) Joyce Holloway Barthelson
- Duets for Soprano and Contralto—Tuscan Folk Songs (Caracciolo) Claire Harsha Upshur, Mary Groom Richards
- Tenor Solos—(a) Little Lad o' Dreams (Lamont); (b) Look Down, Dear Eyes Gwynfi Jones  
(Fisher)
- Contralto Solos—(a) My Ain Folk (Lemon); (b) My Ship (Garratt) Mary Groom Richards  
Hawaiian Melodies Joseph Lario, Steel Guitar; Jack Andrade, Spanish Guitar
- Vocal Selections—(a) La Spagnola (di Chira); (b) Soldiers' Chorus (from "Faust") KGO Mixed Quartette  
(Verdi)
- Duet for Soprano and Tenor—Zuleika and Hassan (Mendelssohn) Claire Harsha Upshur, Gwynfi Jones
- 'Cello Solo—Song of India (Rimsky-Korsakoff) Margaret Avery
- Duets for Tenor and Baritone—(a) Excelsior (Balfe); (b) The Moon Has Raised Her Gwynfi Jones, Richard Lundgren  
Lamp Above (Benedict)
- Contralto Solos—(a) My Dear Soul (Sunderson); (b) A Farewell (Liddle) Mary Groom Richards
- Vocal Trio Selection—Praise Ye (from "Attila"); (Verdi) Claire Harsha Upshur, Soprano; Gwynfi Jones, Tenor; Richard Lundgren, Baritone
- Instrumental Selections—(a) To a Wild Rose (MacDowell); (b) Tarantella (Heller) Arion Trio

THURSDAY, JULY 31—8:00 P. M.

"THE GREAT DIVIDE"

A Drama in Three Acts, by William Vaughn Moody. Presented by the KGO Players, under the direction of Wilda Wilson Church.  
CAST

- |   |                     |
|---|---------------------|
| Philip Jordan   | Roger Noble Burnham |
| Polly Jordan, Philip's wife   | Mary Harper         |
| Mrs. Jordan, his mother   | Florence Palmer     |
| Ruth Jordan, his sister   | Pearl King Tanner   |
| Winthrop Newbury  | Bert Horton         |
| Dr. Newbury, Winthrop's father  | Perry Riley         |
| Stephen Ghent   | Barry Hopkins       |
| Lon Anderson  | Roger Noble Burnham |
| Burt Williams   | Bert Horton         |
| Dutch   | Fred Thomas         |
| A Mexican   | Conrad Kahn         |
| A Contractor  | Conrad Kahn         |
| An Architect  | Fred Thomas         |
| A Boy   | John Bacon          |
| Instrumental Selection—Country Dance (Gade)                                     | Towler Trio         |
| ACT I—Philip Jordan's cabin in Southern Arizona, on a late afternoon in spring. |                     |
| Instrumental Selection—Rosaline (Rubner)  | Towler Trio         |
| ACT II—Stephen Ghent's home in the Cordilleras.                                 |                     |
| Instrumental Selection—Gavotte (Martini)  | Towler Trio         |
| ACT III—Sitting-room of Mrs. Jordan's house at Millford Corners, Massachusetts. |                     |
| Instrumental Selection—Serenade (Widor)   | Towler Trio         |

SATURDAY, AUGUST 2—8:00 P. M.

- Instrumental Selections—(a) Selections from "The Serenade" (Victor Herbert); (b) Arion Trio  
Autumn and Winter (Glazounow)
- Tenor Solos—(a) The Sailor Song (Rancher); (b) The Year's At the Spring Robert E. Saxe  
(Beach)
- Vocal Selections—(a) Viking Song (Coleridge Taylor); (b) Love's Old Sweet Song Bay City Male Quartette  
(Molloy)
- Gwynfi Jones, First Tenor; Robert E. Saxe, Second Tenor; Clarence H. Oliver, Baritone, George Madison, Basso-Profundo.
- 'Cello Solos—(a) Lamento (Gabriel-Marie); (b) Nocturne (Chopin) Margaret Avery
- Baritone Solos—Indian Love Lyrics (Woodforde-Finden); 1, The Temple Bells; 2, Kashmiri Song; 3, When I Wake Clarence H. Oliver
- Instrumental Selections—(a) Hungarian Dance No. 6 (Brahms); (b) Musette Arion Trio  
(Sibelius)
- Selections for Male Trio—The Cavanaugh (Bullard) Robert E. Saxe, Tenor; Clarence H. Oliver, Baritone; George Madison, Bass

## K P O—Hale Bros. Radiophone—423 Meters

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 THEODORE JOHN IRWIN, Official Organist

Scripture Reading and Time Signals at noon daily except Sunday.

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.



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## K F O A—Pacific Northwest Station—455 Meters

Rhodes Department Store, Arcade Square, Seattle, Wash.  
(Pacific Time)

Carl E. Haymond, Program Announcer.

### MONDAY, JULY 28—

8:30 p. m. The Seattle Chamber of Commerce presenting their monthly program of vocal and instrumental music, under the direction of Mrs. G. O. Guy.

### WEDNESDAY, JULY 30—

8:30 p. m. The Admiral Oriental Steamship Company will present a remarkable evening's entertainment with a program of dance music given by the orchestra of the Steamship President Grant. This orchestra is a selected group of musicians of the University of Missouri student body, and are extremely popular among passengers of the Oriental Line. Miss Joyce Reynolds, contralto soloist, will sing two groups of popular melodies. A five-minute address will be given by an officer of the Admiral Oriental Line.

### FRIDAY, AUGUST 1—

8:30 p. m. Miss Nelle Duffy, contralto, will sing three groups of specially requested numbers. Mr. Alfred Green, one of Seattle's most promising baritone soloists, will sing several groups with Mrs. Willeke as the accompanist.

## K G W—The Morning Oregonian—492 Meters

PORTLAND, OREGON  
(PACIFIC TIME)

PROGRAM FOR WEEK OF JULY 27 TO AUGUST 2

### SUNDAY, JULY 27—

6:00 p. m. Church services, conducted by Dr. O. C. Wright.

### MONDAY, JULY 28—

11:30 a. m. Weather forecast.  
3:30 p. m. Literary program by Portland Literary Association.  
7:15 p. m. Police reports.  
7:30 p. m. Baseball scores, weather forecast and market reports.

### TUESDAY, JULY 29—

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 by George Webber and his orchestra.

### WEDNESDAY, JULY 30—

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.  
9:00 p. m. Concert by Wendall Hall, presented by National Carbon Co.  
10:00 p. m. Dance music by George Olsen's Metropolitan orchestra of Hotel Portland.

### THURSDAY, JULY 31—

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.  
9:00 p. m. Concert by Wendall Hall, presented by National Carbon Co.  
10:00 p. m. Dance music by George Olsen's Metropolitan orchestra of the Hotel Portland.

### FRIDAY, AUGUST 1—

11:30 a. m. Weather forecast.  
3:30 p. m. Woman's program.  
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, AUGUST 2—

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 KGW is not observing daylight saving time.

**Murdock Radio Head Phones "Standard Since 1914"**

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

(PACIFIC TIME) DALLAS, TEXAS

**MONDAY, JULY 28—**

10:30 to 11:00 a. m. Address, Capt. S. C. Kile, United States Veterans' Bureau.  
 6:30 to 7:30 p. m. Charles Roessler, zither recital; W. W. Macbeth, harmonica expert, in specialties.

**TUESDAY, JULY 29—**

10:30 to 11:00 a. m. Address, DeWitt McMurray, editor Semi-Weekly Farm News, in a medley of humor, pathos and wisdom.  
 6:30 to 7:30 p. m. Song and orchestra recital by talent from Van Alstyne, Texas, in charge of Ray A. Nunnallee.  
 9:00 to 10:00 p. m. Mrs. Margaret Fifer and her orchestra.

**WEDNESDAY, JULY 30—**

10:30 to 11:00 a. m. Musical program by the Red Head Girl of The Dallas Journal Editorial Staff.  
 Station WFAA will be silent remainder of the day.

**THURSDAY, JULY 31—**

10:30 to 11:00 a. m. Address, Charles E. Osborne, physical director Young Men's Christian Association, on "Doing Your Best."  
 6:30 to 7:30 p. m. Robert Pool, tenor; Nell Lowrey, soprano; recital.  
 9:00 to 10:00 p. m. Mustang Serenaders Orchestra.

**FRIDAY, AUGUST 1—**

10:30 to 11:00 a. m. Address, Dr. Robert Stewart Hyer, President Emeritus Southern Methodist University, on the Sunday School Lesson.  
 6:30 to 7:30 p. m. George A. Nicoud in Grand Musicbox Recital of classics and favorites.

**SATURDAY, AUGUST 2—**

10:30 to 11:00 a. m. Address, William M. Reilly, editor The Craftsman, Labor Journal, on "Organization and the Ethics of Labor."  
 1:30 to 2:00 p. m. Musical program, Reynolds Presbyterian Orphanage.  
 6:30 to 7:30 p. m. Netto Male Quartet in recital of standard favorites.  
 9:00 to 10:00 p. m. Adolphus Hotel Orchestra, Lawrence Morrell directing, in Bamboo-land dancing floor on the roof of The Adolphus.

**SUNDAY, AUGUST 3—**

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 7:30 p. m. Sacred Song Recital, East Dallas Christian Church.  
 7:30 to 9:00 p. m. Jack A. Davis and his orchestra.

See the U. S. Government "spook detector" in operation at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

Radio fans, see the model "radio home" at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

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Los Angeles, Calif.

**WOC—Palmer School of Chiropractic—484 Meters**  
 Davenport, Iowa—Pacific Time

- SUNDAY—JULY 27—**  
 6:00 p. m. Church service—Rev. S. A. Morning, pastor First Presbyterian Church, Deep River, Iowa.  
 7:30 p. m. Musical program (1½ hours)—The Palmer School Radio Orchestra, Erwin Swindell, conductor, assisted by Henry Van Den Berg, baritone, and Chas. Kerns, tenor.
- MONDAY, JULY 28—**  
 6:00 p. m. Mus'cal program—Lois McDermard, pianist; novelty numbers by Peter Mac Arthur and Erwin Swindell.  
 8:00 p. m. Musical program—Program by select juvenile talent from Tri Cities and vicinity.
- TUESDAY, JULY 29—**  
 No broadcasting after 4:00 p. m. Tuesday—Silent Night for WOC.
- WEDNESDAY, JULY 30—**  
 6:00 p. m. Organ recital from the B. J. Palmer residence—Erwin Swindell, organist. Mrs. John Malloy, soprano, in a program of old-time favorites.
- THURSDAY, JULY 31—**  
 7:00 p. m. Orchestra program (1 hour)—The Palmer School Radio Orchestra, Erwin Swindell, conductor, featuring: "Evelyn," "Adoration Waltz," "Dimples," "My Sweetheart," "Sweet Caroline," "Hoodoo Blues" (popular selections released through the National Association of Broadcasters, of which WOC is a member). Ralph W. Fuller, baritone soloist.
- FRIDAY, AUGUST 1—**  
 6:00 p. m. Musical program (1 hour)—Band concert by Note's Band of Moline, Illinois, Honnore Note, director.  
 7:00 p. m. Weekly Tourists' Road Bulletin, as compiled by Touring Bureau, Davenport Chamber of Commerce.
- SATURDAY, AUGUST 2—**  
 7:00 p. m. Orchestra program (1 hour)—The Palmer School Radio Orchestra, Erwin Swindell, conductor, featuring: "A Souvenir of Love," "My Dream Moon," "Unfortunate Blues," "After All," "Thru the Shady Lane," "Forget Me Not" (popular selections released through the National Association of Broadcasters, of which WOC is a member). Ralph W. Fuller, baritone soloist.

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

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## Letters to the Editor

Boise, Idaho, July 15, 1924.

Editor Radio Doings,  
Los Angeles, Calif.

Dear Sir: Replying to your article, "The Aerial Outlook," in the July 12th number, will say that it has been my experience that there is no need of an exposed aerial high up on the top of a roof. I have an antenna wire on the roof and about 50 feet from the ground. I also have a screen 4 by 6 feet covered with green burlap, which in turn is covered with common chicken netting on both sides. The burlap could just as well cover the wire, but I have it reversed in order that I can hang articles up for sale. This screen is hung on hinges so that it is also directional. This screen could just as well be covered with canvas or burlap and ornamented with designs in colors. I use this as an antenna and it gives me better results than my aerial on the roof, notwithstanding the fact that I have this screen in the basement of a brick building and some 14 feet below the sidewalk. The wire netting might just as well be stretched on the rafters of the attic or on the joist in the good old cellar where other things are kept. A still better result could be obtained if the wire netting were replaced with copper netting or screen wire, but this way is satisfactory.

Yours truly,

WM. SCHACHNER.

Fallbrook, Calif., July 17, 1924.

Editor Radio Doings,  
Los Angeles, Calif.

Hello, fans! Where are you all nowadays, anyway? Hiding from Old Man "Static," I'll bet. I notice this last issue of "Radio Doings" contains only forty-six pages and only one "Letter to the Editor" (issue of July 20-26). Whose fault is this? Not the editor's. And as we like to see this fine little paper with at least sixty-five pages, and ninety if possible, let's get together and fill up the magazine with good, interesting "Letters to the Editor." What do we care if static is bad and reception rather poor; let's keep our radio interest going. We have the fall and winter months coming, when we can sit up late and listen to distance clear as a bell. I have sold my three-tube regen. set, and so have no radio at present, but expect a good one soon, as I am nearly finished wiring a five-tube Cockaday four-circuit tuner. Now let's hear from some of you fans through "Radio Doings."

Box 26, Fallbrook, Calif.

HAROLD GRAHAM.

P.S.—I wish Mr. Frank Dana Thorne the most consolation and comfort possible in his invalid condition, through the help of this wonderful means, radio.

H. G.

### **"RAY-DEE-ARTCRAFT Selection is YOUR Protection"**

#### **"THE RADIO DOCTORS"**

*Service that Satisfies*

WE can definitely determine the reasons for inferior results with any type set, and can repair or rebuild and guarantee complete satisfaction.

OUR SPECIALTY—Custom-built sets to fit your Console, Phonograph, Book Case, Automobile and bank account. Our sets are doing distance now. Is yours?

If not, Phone AX. 7294. Consultation Free.

R. O. GORDON

N. P. JACK

Laboratory 510 East Saturn St., Huntington Park, Calif.

## Letters to the Editor

Hamlin, Kans., July 15, 1924.

Radio Doings:

Would like to find out what station I heard last night (Monday, July 14). Just got the singing-off announcement. A woman announcer. Call sounded like KFCV. Might have been KFEV, Casper. Signed off at 10:31, I believe, and by mountain time. A short wave, but hard to determine exact wave due to change, same day, in aerial, to a 3-wire, 100-foot, 28 feet high, T type. Sure has real volume. "China Boy" of recent issue should try it. Received 2-meg. g. l. from Mr. Cooke. Result of change, fine.

Radiospectfully,

J. A. BROCKHOFF, GBQB.

Oakland, Cal., July 8, 1924.

Dear Editor: Could you please tell me what station was broadcasting on just a few meters below KFI, July 7, Monday night? I heard them between 10 and 10:30, but could not make out what the announcer said. Also, could you tell me what the call letters are of the new station in Salt Lake City?

I would be much obliged if you could answer my questions by mail, as I do not have a chance to get Radio Doings each week.

Thanking you beforehand, I am,

Truly yours,

H. J. SOLFISBURG.

5043 Fairfax Ave., Oakland, Cal.

This station is KFPT, 268 meters. See page 46.

Saticoy, Calif., July 10, 1924.

Dear Sirs: I am very sure that Russell Wisler and Billy Blevins heard KFPT of Salt Lake City. It is a new station on 268 meters. They have very good volume here and the quality is excellent. Mr. Brockhoff—if you only wish to communicate a few miles, why not make a c.w. set using an amplifier tube? It will cause much less interference and I am sure will cover practically as great a distance. It can be operated from your receiver batteries. If this is what you want, please write me. Spark coil sets are not practicable. I have operated several, but c.w. will be better.

Yours truly,

JAMES M. SHARP, JR.

See how ships are guided by radio through the thickest fog at the United States Navy exhibit at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

Will you be one of the 100,000 who visit the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive?

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The "Death Valley" PERMATECT is constructed expressly for Reflex Circuits. Recommended by Radio Engineers Will stand up under any High Plate Voltage. This Product is also an ideal detector for a crystal set

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The "Death Valley" Crystal is a natural mineral with every point sensitive. The Volume and Clarity has not been equaled. Will stand up under any conditions, as it cannot be damaged. Sold only in sealed packages

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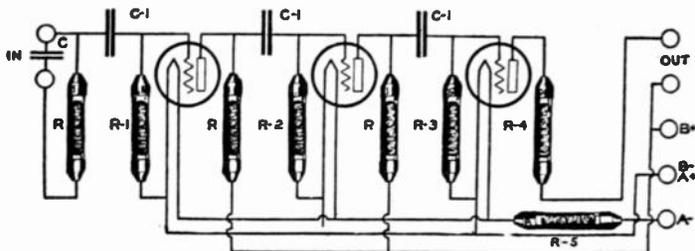
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Pacific Coast Distributor, V. P. LANCE, San Fernando, Calif.

## Resistance Coupled Amplifiers

By H. G. AYLSWORTH of the Radio Corp. of Southern California

Many of us have been under the impression that Resistance Coupled Audio Frequency Amplifiers are expensive to operate and build. The circuit shown here will disprove this theory, as all the resistances are ordinary grid leaks of various resistances, and a few fixed condensers, preferably "Micadons."



The following constants will probably give the best results although in some cases, C-1 may be as high as .006. However, we recommend:

C, .002; C-1, .0025; R, 100,000 Ohms; R-1, 1 Megohm; R-2, ½ Megohm; R-3, ¼ Megohm; R-4, 50,000 Ohms; R-5, ballast of suitable resistance, or a rheostat.

In a four stage amplifier, the grid leak for the fourth tube should be 200,000 ohms for maximum results. The "B" battery voltage should be not less than 90, but a higher voltage up to 180 will give greater amplification. As the plate current for the detector must flow through the input resistor (R) which cuts down the voltage considerably, it may be necessary to allow from 45 to 60 volts for the plate circuit of that tube.

In connecting the amplifier to a crystal set, a low ratio transformer should be used. The output from the set will connect to the primary, the secondary will connect across the grid and filament of the first tube. This does away with the first two fixed condensers and the first resistor, R. It will also be necessary to ground the negative "A" battery, and reverse the "A" battery as well.

As stated in a previous article a few weeks ago, the "B" battery consumption of this set is very low—less than 2 milliamperes per stage, and while the higher voltage is necessary to obtain maximum amplification, the very small 22½ volt cells will last as long on this set as the larger cells do on a transformer coupled set, therefore the cost of "B" battery will be about the same for either type of amplifier.

One hundred and fifty booths filled with radio apparatus at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

### Murdock Radio Head Phones "Standard Since 1914"

## WE ARE THE ONE AND ONLY "RADIO DOCTORS"

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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*Elite* RADIO SHOPPE

Phone 56434

132 S. Western Ave.

Open 9 a. m. to 7:30 p. m.

Los Angeles

????

Woodland, Cal., July 1. 1924.

Radio Doings,  
San Francisco, Cal.

Dear Sirs: Will you kindly answer a question for me:

Question 1.—Can 22½ volt dry B battery be charged?

2. Have a 5-tube Neutrodyne, factory built. Have aerial, north and south, 60 feet, twenty-foot lead in. Can't pick up Los Angeles at all on loud speaker. Can get KGO, KPO, KLX. That's about all on loud speaker. A battery, fully charged; B battery test 60 volts. Would you advise storage B battery?

Thanking you in advance for an early reply, I am,

PAUL E. KRONFELDT, Woodland, Cal.

P. S.—Couldn't get along without Radio Doings.

Answer 1.—Dry batteries cannot be recharged. You should have at least 90 volts B battery.

2.—Yes, storage B batteries are advantageous if properly cared for.

July 10, 1924.

Radio Doings:

Question.—Would like this information by return mail and please answer very prompt, so I can make adjustments if need be made: Have a new 4-tube set, so far get KFI quite clear; KGO is coming best of all. Have not been able to get Portland or Canada so far. My antenna is 125-foot pole, 44 feet high, running north and south, between two phone lines. Have been a reader of Radio Doings for some time before I got the new radio. Find it a very good book.

P. ERICKSON, Olanthe, Cal.

Answer.—It is possible that you will be unable to receive Canadian stations during the summer months. Reception conditions vary in different localities, and the best any fan can do is to make his installation as efficient as possible, keeping the batteries well charged, etc. You have a good antenna. Are other listeners in your vicinity doing better work? If not, your difficulty is probably solely due to poor locality.



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- Complete Radio Satisfaction?

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## HENSEL ELECTRIC STORE

OPEN EVENINGS

567-073

214 So. Western Ave., Los Angeles

?? ??

Wilmington, Cal., P. O. Box 146, July 8, 1924.

Dear Sir:

I have a Neutrodyne receiver, aerial 15 to 20 feet high, and length about 30 feet, five-tube set, large-sized tubes and storage battery. I get Los Angeles fine, and KGO, Oakland, O. K., but outside of that I get no long-distance points except very occasionally, and only then close in, such as San Francisco and San Diego.

It seems to me that with such a set, \$250, that even in the summer months I should get distant stations.

Question.—Can you advise me where the fault is? The people I purchased the set from say that during the summer months you cannot successfully get the long-distance stations. Is this correct as you find it? I do not even get a semblance of any long-distance points stations.

Yours very truly,

C. M. DAVIS.

P. S.—Are there any amplifiers, etc., which I could add to the machine to help me get long-distance stations during the summer months, and, if so, what?

Answer.—The neutrodyne receiver is sufficiently selective to function with a much larger antenna than you are using. Your short, low antenna is probably responsible for your failure to get long-distance other than San Francisco. During the summer months little is to be expected in the way of long-distance reception. No, there is nothing that would be practical to add to your equipment to bring in long-distance during the summer.

Question—When I listen to KGO, it comes in loud for a few minutes and then it gets very dim. A few minutes later it comes in loud again. This occurs repeatedly all the time. What is the cause of this? Is it in my set? I have a one-tube regenerative receiver.

HARPER B. HENRY, R. 3, Box 1586, Burbank, Cal.

Answer—The trouble is not in your set. The action which you describe is known as "fading" and is one of the mysteries of radio, as yet unexplained. Several theories have been advanced, depending upon the existence of the "Heaviside Layer" for their foundation.

Question—I have a crystal set and can't tune in KHJ without also hearing KFI. I use a lamp socket antenna and a gas pipe ground. Could I use a variable condenser? I will appreciate your answer very much.

ALFRED MORA, Pasadena, Cal.

Answer—Would suggest that you abandon the lamp socket and erect an outdoor antenna if possible. A single wire 60 to 80 feet long. If you are still troubled with interference, your set is totally lacking in that quality known as selectivity and should be converted into a two-circuit set. Use the water pipe for ground if possible in preference to the gas.

**ANNOUNCEMENT OF A NEW RADIO STORE AT  
1358 South Hill Street**

We furnish complete two-tube Harkness Reflex Set, prices ranging from \$65.00 and up, according to cabinet.

**TIME PAYMENTS ARRANGED**

Manufacturers Agents for  
**CLEA-R-ADIO SPEAKERS**

Dealers Wanted.

**THE GUARANTEE RADIO COMPANY**

1358 South Hill Street

ATlantic 9939

Los Angeles



Dear Sir:

Will you kindly answer the following questions?

- 1.—Is it true that the U. V. 199 tubes are unsatisfactory for reflex sets on account of getting soft?
- 2.—If they are unsatisfactory because they go soft what make them soft?
- 3.—Is the WD 11 subject to the mentioned trouble?
- 4.—What tube would you recommend for a two tube Harknes Reflex set?

Thanking you in advance for your trouble.

Sincerely yours,

OGLE McCLELLAN,  
1927 East Second St.,  
Los Angeles, Calif.

**ANSWER**—The UV-199 tube, with the other tubes employing the XL Tungsten filament, has the peculiarity of ceasing to function if excessive filament or plate voltages are applied. A tube may be inoperative as an amplifier with 90 volts on the plate, for example, while it will function satisfactorily as a detector with 40 volts B battery. This condition, peculiar to this type of tube, may in most cases be rectified by burning the tube for half an hour with the plate battery disconnected. The WD-11 type of tube is not subject to this fault, and is used by the Radio Corporation in their new reflex set. Tubes are more apt to be crowded in a reflex circuit than in a plain circuit, and hence the reflex should have tubes of the greater stability. The 201A tubes are, of course, to be recommended, whenever the storage battery is not objectionable.

Dear Sir:

Could you answer the following questions in the "Radio Doings."

I have a crystal set, made up of a 23-plate condenser, detector, condenser and a double slide tuning coil, but I can only get one slide to work. When I put the other slide down it kills the program entirely.

Question 1.—Do you think that if a vario-coupler was put in place of the tuning coil it would help?

2.—I can only get KFI, and then pretty loud. The aerial is about seventy-five feet long. It is a one-strand aerial. If there is anything I can do, will you let me know?

Yours truly,

ALBERT SNYDER,

602 Tujunga Ave., Burbank, Cal.

Answer 1.—Without your diagram we are unable to advise what the difficulty may be.

If KFI is the only station which you hear, it is obvious that you are unable to tune down to the shorter wavelengths. We have mailed the hook-up best suited to the apparatus which you have.



## DUTHO RECHARGEABLE STORAGE "B" BATTERIES

### Provide Clear Reception

Have 3500 M. A. Hours capacity. Designed especially for larger sets demanding steady plate current, for loud, clear, undistorted reception. Note low prices delivered. 750 M. A. hours Dutho "B" Batteries are for portable and other sets. New technical features make them fool-proof and insure long life. Shipped dry, with liquid in separate container. Thousands in use.

Shipped anywhere prepaid. Certified Check or money order must accompany order.

Here's what they cost you delivered

Super-Dutho  
3500 m a hours

- 24 v \$9
- 45 v \$17
- 90 v \$32

S Type Dutho  
750 m a hours

- 24 v \$5
- 45 v \$9
- 90 v \$17

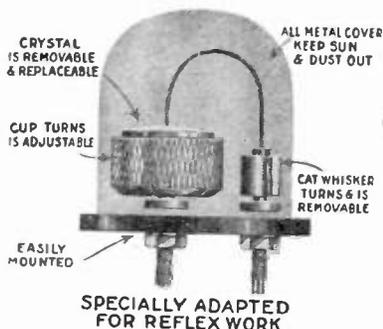
Write for booklet on Storage "B" Batteries

**DURKEE-THOMAS Products Co.**

1228 Folsom Street, San Francisco

DEALERS:—Write for Special Dealer Proposition

# The Lincoln Detector



*Enclosed, Fixed, Adjustable*

AUGUST 1st  
New List Price

**\$1.50**

Increased Production



**LINCOLN RADIO  
COMPANY**

1151 Santee Street  
FAber 0665

—Phones—

Los Angeles, Cal.  
FAber 0666

## Trade Notes

With final payments for exhibit space practically all in, the success of the Pacific Radio Exposition, to be held in the San Francisco Civic Auditorium, August 16 to 21, inclusive, is now assured, according to William P. Bear of Chicago, manager of the show.

There will be 150 booths on the main floor of the auditorium, which will be elaborately decorated with radio as the motif. Exhibits will comprise products of practically all manufacturers of receiving sets, parts, etc., and several United States Government departments, notably the Navy, will have booths. Elaborate entertainment for the public, in addition to the exhibits, is planned.

Morning sessions will be devoted to trade meetings and hundreds of leaders from throughout the country are expected to attend. The afternoons and evenings will be open to the public and the show is expected to attract more than 100,000 persons.

A. S. Lindstrom is chairman of the executive committee in charge, assisted by C. C. Langevin, Don Lippincott, H. W. Dickow and F. J. Cramm.

Formal announcement of the incorporation of the General American Radio Corporation, under the laws of Delaware, with capitalization of \$10,000,000, was made during the current week. Executive officers of the concern are located at 345 Madison Avenue, New York.

In connection with the new incorporation Mr. Selznick made the following statement: "The General American Radio Corporation is formed for the purpose of consolidating a number of the most important independent radio and accessories manufacturers. Its business will include the manufacture and sale of various kinds of receiving apparatus, and all parts therefor. It will also manufacture non-infringing radio vacuum tubes and tungsten filament wire under patents recently issued, and now acquired by the General American Radio Corporation. These patents are considered of the greatest importance in the radio field. This consolidation places the new corporation in a position to manufacture and license under them to the utmost advantage of the public and itself."

Gilfillan Bros., Inc., Los Angeles, manufacturers of radio and magneto parts, have completed a merger with the Radio Service Laboratories of Asbury Park, according to an announcement made during the current week. The new combine, it is reported, will enter the fields as a Hazeltine Corporation as sub-licensed manufacturer of neodyne receivers.

The Western Radio, Inc., one of the oldest jobbers on the Pacific Coast, have joined "Radio Row," their new location being 1224 Wall street, Los Angeles. A large percentage of radio jobbers are now located in this vicinity.

Mr. L. E. Taufenbach, vice-president and manager, showed us over his new premises and is to be congratulated on the splendid arrangement.

The Western Radio, Inc., were established in 1919 and operated the first broadcast station, KOG, in Southern California.

Kierulff & Ravenscroft have opened a branch at 654 Howard Street, San Francisco. This firm is the distributor for the Kennedy line and also carries a full line of accessories.

E. G. Arnold, who has been with the Western Radio, Inc., has accepted the position of manager of the radio department for Kierulff & Ravenscroft. Mr. Arnold has been associated with radio for several years and is well known to the trade all over California.

The International Radio Service, 826 S. Vermont Avenue, Los Angeles, is now under the management of Mr. Armes. A feature of this store is that both Spanish and French is spoken.

Get ready for your "DX" work during the winter at the Pacific Radio Exposition, Civic Auditorium, San Francisco, August 16 to 21, inclusive.

## Out of the Air

We are at last able to give some details about KFPT at Salt Lake City. So many calls and letters have been coming in about this station that we have been trying to satisfy the listening-in public. The station is owned and operated by Cope & Johnson; the power is 500 watts, wave-length 268 meters. The studio is of the latest approved construction. The operating personnel consists of the following: Earl Jay Glade, chief announcer; C. H. Hoys, announcer; W. R. Anderson, program director; Heber C. Johnson, business manager; J. N. Cope, technical director; Helen Johnson, accompanist. The owners of this station promise to furnish detailed programs in the near future.

We have had several requests to publish the telephone numbers of the various broadcasting stations. The reason we do not do so is that so many people call up stations during broadcasting, requesting numbers be played, and it is impossible to comply with all these. Let us suggest that listeners-in drop a post card to the station. Applause cards can be obtained from many of the radio dealers and you can make your requests on these.

Eighty colleges and universities in this country operate broadcasting stations.

Fifty magazines have a department devoted to radio.

The janitor's little boy, very black, was named "Midnight" by his white neighbors. He didn't mind their calling him that, but one day when one of his own race exclaimed, "Hello, Midnight!" he retorted indignantly, "Shet up, you'se jes about quarter to twelve yo'self."

A \$2,000,000 apartment hotel—to be the finest in the South—is to be erected at the corner of Church street and West End avenue, Nashville, Tenn., in the near future, and every room in this building will be equipped with a radio receiving set. Radio is booming in Nashville—two new broadcasting stations being planned. One probably will be erected by Fisk University and the other by a large insurance company.

Even the Holy land has succumbed to radio. The installation of radio apparatus in Palestine was given official sanction by a government ordinance issued June 3 permitting all inhabitants to install radio sending or receiving instruments. The British Government is planning to install a powerful broadcasting station on the Mount of Olives, the report said.

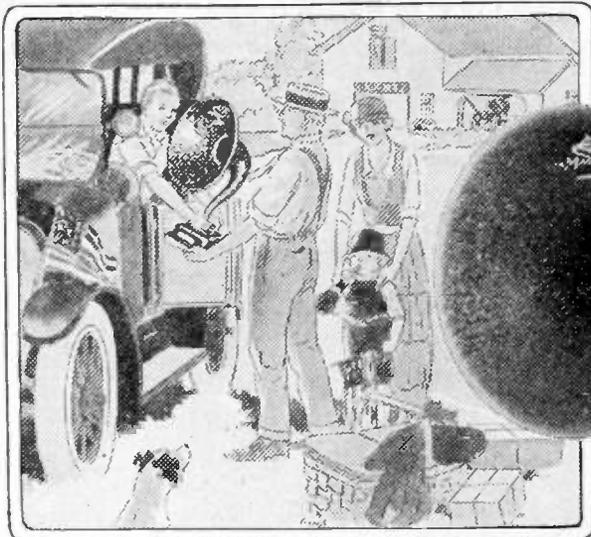
Shun Pao of Shanghai is the first Chinese newspaper to take up broadcasting.

On a farm in South Georgia is posted this sign: "Trespasser's will be persecuted to the full extent of 2 mean mongral dorgs which ain't never been ovarly soshibil with strangers and 1 dubbel barelt shot-gun which ain't loaded with no sofy pillers. Dam if I ain't tired of this hel raisin on my proputy."—Everybody's

KPO has the pleasure of announcing that on Wednesday evening, August 20th at 8:20 a course in conversational French will be begun. Those who wish to enroll for the course and receive necessary details, charts, and so on, please send self-addressed stamped envelopes to KPO, Hale Bros., Inc., San Francisco, at once.

When storage battery clips become green, soak them for a few minutes in a hot solution of bicarbonate of soda and water. Afterward wash them in clean water and set them aside to dry. When they are dry, rub them over with a light film of vaseline. Do the same to the lugs on the storage battery.

Manufacturers interested in the specifications of the tentative standard vacuum receiving tube adopted by the Inter-departmental Radio Advisory Committee for manufacture and test, may secure copies of the full data and drawings by applying to L. E. Whittemore, Secy., Dept. of Commerce Building, Washington, D. C.



M4  
\$25.00

**T**HIS new Magnavox Reproducer perfectly meets the insistent demand for an instrument of small, convenient size, handsome finish, economical operation, yet producing clear tone throughout the entire musical range.

The low price of Magnavox M4 brings flawless radio reproduction within reach of all.

**THE MAGNAVOX COMPANY, Oakland, Calif.**

New York Office: 350 West 31st Street

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

**MAGNAVOX**  

**Radio**

# ANNOUNCEMENT

THE SAME CRYSTAL      THE SAME QUALITY

## TO THE PUBLIC

THE

# Argentite Radio Corporation

Has acquired the ARGENTITE Mine, Factory and Patents of the Mineral Products Co.

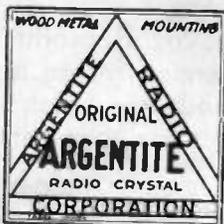
It has cut its production costs materially, with the object in view of giving you a better crystal for less money.

The same workmanship and quality will be put into  
**ARGENTITE**

It will carry the same guarantee of quality.

ORIGINAL

## ARGENTITE



Nickel  
50 Cents

Plain  
Unmounted  
30 Cents

Wood-Metal, 30 Cents

The Best In The World For Less Money

The Mineral Products Co. takes this occasion to thank you for your appreciation of ARGENTITE and assure you, you will receive a better crystal and better service from the

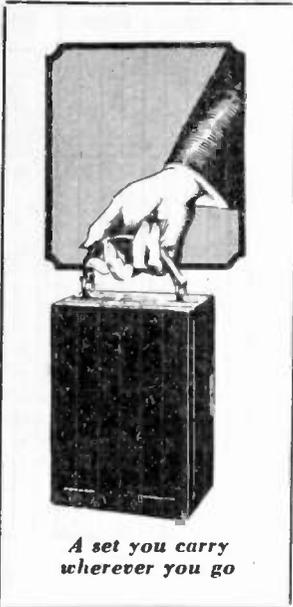
## ARGENTITE RADIO CORP.

326 H. W. HELLMAN BLDG.

Phone TUcker 5015

Los Angeles, Calif.





*Compact  
as  
a Camera*

**KODEL**  
*The Camera*

*"Make a Pal*

KODEL—A complete long distance remarkable receiving power and range on the floor brings in local stations. aerial or on the ground wire alone. operate.

**Popularly Price**

Your Dealer will install  $\bar{B}$ att  
at an approximate

**Your Radio Dealer Will Be**

*Kodel Can*

AT HOME  
AT CAMP

ON THE FARM  
ON THE TRAIN

**ANY I**

**ANYWHERE**

*It is the ideal set for home use because it  
out of sight when not in use. Occupies no  
other accessories to carry.*

WHOLESALE DISTRIBUTORS

**YALE RADIO ELECTRIC CO.**

4816-4818 S. Vermont Ave., Los Angeles

**L**  
Radio  
Model?

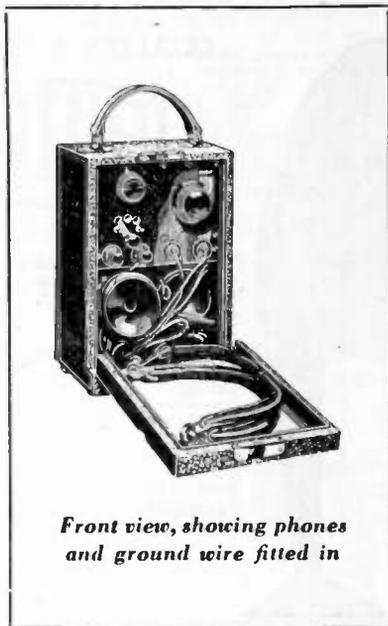
**A Real  
Portable  
Set**

Set in a camera case. Has  
A few feet of wire thrown  
Will operate on any kind of an  
highly selective and easy to

Without  
Accessories

**\$18.50**

Tube and Phones  
Cost of \$10.00



*Front view, showing phones  
and ground wire fitted in*

# Glad To Demonstrate Kodel

**Be Operated**

**AT YOUR OFFICE      IN THE PARK  
AT THE SEASHORE    ON BOARD SHIP**

## PLACE

### ANY TIME

*is compact, and can be folded and placed  
in any small corner in your traveling bag—no*

MANUFACTURED BY

## KODEL MFG. CO.

WESTERN BRANCH

400 San Fernando Bldg., Los Angeles

QUALITY MAINTAINED

**TRUTONE**  
TRADE MARK

PRICES REDUCED

The Popularity of TRUTONE has reduced manufacturing cost. The manufacturer believes in the policy, "Quality Merchandise at Fair Profit"—that's why TRUTONE prices are reduced.

**LITTLE SENIOR** has large mica diaphragm; wooden tone chamber in base; beautiful horn of non-metallic composition—complete with 6-foot cord, \$16.00. **TRUTONE SENIOR** maintain the high standard of Truetone Quality and is designed for those who want the best long-distance reception. Complete, with 6-foot cord, \$22.00.

**TRUTONE**, Types A and B (\$8.00 each), are amplifying horns for any make of single or double phone receivers. Horn only \$6.00. Base only \$2.00.

AWARDED THE RADIO  
N E W S LABORATORIES  
CERTIFICATE OF MERIT  
NO. 309.

*Every dealer can  
supply you.*



# J. D. COLFORD & CO.

400 San Fernando Bldg., Los Angeles

Phone 823-269

*"After the Receiving Set has brought in the stations, then your pleasure depends on the quality of the "speaker." Don't experiment; get the best "speaker"; get a TRUTONE—Quality at the right price."*

*—Radio Jim.*

**KHJ—Los Angeles Times—395 Meters**

Times Building, First and Broadway, Los Angeles. Owned and Operated by Los Angeles Times  
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.

**WEEK COMMENCING SUNDAY, JULY 6, 1924****SUNDAY, JULY 6—**

10:00 a. m.

Sermon from KHJ Studio by Dr. H. C. Culbertson, pastor of the Plymouth Congregational Church.

10:00 to 12:30 p. m.

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

7:00 to 7:30 p. m.

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

8:00 to 10:00 p. m.

Program presented through the courtesy of the Paul G. Hoffman Co., Inc. The Wind Quintet—Andre Maquarre, flute; Henri De Busscher, oboe; Pierre Perrier, clarinet; Alfred Brain, French horn; Frederick Mauritz, bassoon; Blanche Rogers Lott, pianist.

**MONDAY, JULY 7—**

12:30 to 1:15 p. m.

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

8:00 to 10:00 p. m.

Special program through the courtesy of Barker Bros., presenting the Philharmonic Orchestra.

**TUESDAY, JULY 8—**

12:30 to 1:15 p. m.

Program of news items and music.

2:30 to 3:30 p. m.

Matinee musicale.

6:45 to 7:30 p. m.

Children's program, presenting Prof. Walter Sylvester Hertzog. The weekly visit of the Sandman and Queen Titania. Dorothy Nichols, pianist, 13 years old, pupil of Mrs. Walter M. Reckord. Program presented through the courtesy of the Stebbins, Roberts Bucor Co., arranged by J. Howard Johnson.

8:00 to 10:00 p. m.

**WEDNESDAY, JULY 9—**

12:30 to 1:15 p. m.

Program presenting the Junior Novelty Three, through the courtesy of "Radio Red."

2:30 to 3:30 p. m.

Matinee musicale.

6:45 to 7:30 p. m.

Children's program, presenting Prof. Walter Hertzog. Geneva Smith, 12 years old, pianist, pupil of Mrs. Shepard. Marjorie Kertchbaum, violinist, pupil of Louise Moody. Victori Kaerner, screen juvenile. Dick Winslow, juvenile reporter.

8:00 to 9:00 p. m.

Program presented through the courtesy of the Ben Hur Co.

9:00 to 10:00 p. m.

Program presenting Dr. Mars Baumgardt, lecturer, Hoffman's Hawaiian Trio, through the courtesy of the Hoffman Candy Co.

**THURSDAY, JULY 10—**

12:30 to 1:15 p. m.

Program arranged through the courtesy of Ethel Sanborn, pianist.

2:30 to 3:30 p. m.

Matinee musicale.

6:45 to 7:30 p. m.

Children's program, presenting Prof. Walter Sylvester Hertzog. The weekly visit of Dickie Brandon, screen juvenile. Elinore Hammon, 12 years old, pianist, pupil of Winifred Pennell. H. G. Noble, harmonica. Frances Barto, 9 years old, reader.

8:00 to 10:00 p. m.

Program presented through the courtesy of the Platt Music Co.

**FRIDAY, JULY 11—**

12:30 to 1:15 p. m.

Program of news items and music.

2:30 to 3:30 p. m.

Matinee musicale.

6:45 to 7:30 p. m.

Children's program, presenting Prof. Walter Sylvester Hertzog. The weekly visit of Richard Headrick, screen juvenile. Jack Downs, singer, 10 years old. Bedtime story by Uncle John. Program presented by the Community Broadcasters of Pasadena, Edward Murphey, director. Hatch Graham, singer and banjoist.

8:00 to 10:00 p. m.

**SATURDAY, JULY 12—**

12:30 to 1:15 p. m.

Program presenting the Long Beach Californians, through the courtesy of Piggly-Wiggly.

2:30 to 3:30 p. m.

Matinee musicale.

6:45 to 7:30 p. m.

Children's program, presenting Prof. Walter Sylvester Hertzog. Hector Dyer, pianist, 14 years old, pupil of Mrs. Walter M. Record. Helene Pirie, screen juvenile.

**THIS IS STATION K. U. Y.**

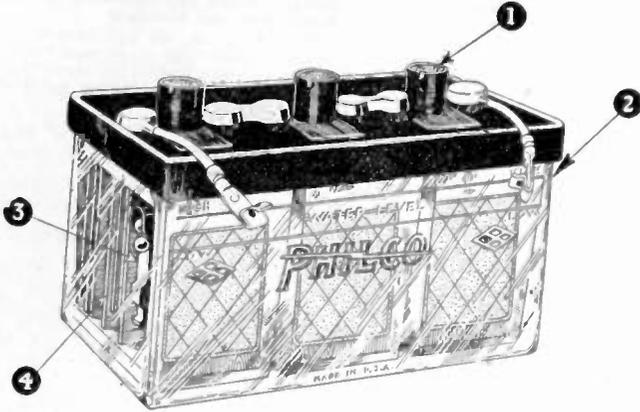
El Monte, California

We carry nothing but the best—Free Demonstrations

**RADIOLAS**  
Coast Radio  
El Monte

**GREBE**

**ECHOPHONE**  
Phone El Monte 110  
306 W. Main St.



*Nick Harris, the famous detective, says to Tobey, Says he:*

"What kind of a battery is this that doesn't spill acid all over creation and never gets you in dutch with your wife? She even thinks it's good looking."

**AND TOBEY ANSWERED:**

"It's a PHILCO. (1) Tightly sealed covers made with new vent construction permit only dry gasses to pass out. (2) Cells are assembled in attractive, strong monobloc containers of clear pressed glass. (3) Visible indicator shows at a glance the exact state of charge. (4) Plates, separators and insulation have been constructed extra heavy—that's why they're guaranteed for 2 years."

"Furthermore, Friend Nick, a radio battery without a charger is just as impractical as a car without a generator. Sure as fate when you've got company and want to show off, you'll find the juice is all gone and you can't get anything. That's why Philco Dynamic Radio Glass Jar Storage Batteries are only sold with a recharger."

There's a Philco Radio Battery for every Radio set. Be sure and ask your radio dealer for Philco. They are more economical, attractive, safer and better in every respect. Write for descriptive booklet and mention your type of radio.

*A. J. Tobey Co.*  
 INC.  
 BATTERY SERVICE

Hope Street at Fifteenth, Los Angeles

Tel. Atlantic 1641

Also for Sale at All Philco Battery Stations

**KFI, Radio Central Station of Earle C. Anthony, Inc.**

Packard Building, 1000 South Hope St., Los Angeles, California  
 Class "A" 500 Watt Western Electric Station, Operating on 469 Meters  
 PAUL REESE, Program Announcer

Remote Control Stations:

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, JULY 6—**

10:00 to 10:45 a. m.	L. A. Church Federation service.
4:00 to 5:00 p. m.	Secular concert.
6:45 to 7:30 p. m.	San Diego Concert Co.
8:00 to 9:00 p. m.	Ambassador Hotel Concert Orchestra.
9:00 to 10:00 p. m.	Examiner concert.
10:00 to 11:00 p. m.	Theron Bennett's Orchestra.

**MONDAY, JULY 7—**

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

**TUESDAY, JULY 8—**

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 7:30 p. m.	Dorice Gordon—vocal and instrumental concert.
8:00 to 9:00 p. m.	Ambassador Coconut Grove Orchestra.
9:00 to 10:00 p. m.	Examiner Concert.
10:00 to 11:00 p. m.	Don Meany arranging concert.

**WEDNESDAY, JULY 9—**

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 7:30 p. m.	Nick Harris detective stories and concert.
9:00 to 10:00 p. m.	Examiner Concert.
10:00 to 11:00 p. m.	Hollywoodland Orchestra.
11:00 to 12:00 p. m.	Ambassador Coconut Grove Orchestra.

**THURSDAY, JULY 10—**

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 7:30 p. m.	Y. M. C. A. concert and lecture.
8:00 to 9:00 p. m.	Ambassador Hotel Concert Orchestra.
9:00 to 10:00 p. m.	Examiner Concert.
10:00 to 11:00 p. m.	John Smallman arranging program.

**FRIDAY, JULY 11—**

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 7:30 p. m.	Program by Myra Belle Vickers.
9:00 to 10:00 p. m.	Examiner Concert.
10:00 to 11:00 p. m.	Varied program.
11:00 to 12:00 p. m.	Ambassador Coconut Grove Orchestra.

**SATURDAY, JULY 12—**

5:30 to 6:00 p. m.	Examiner News Bulletins.
6:45 to 7:30 p. m.	Vocal concert.
8:00 to 9:00 p. m.	Mixed program.
9:00 to 10:00 p. m.	Examiner Concert.
10:00 to 11:00 p. m.	Popular song concert.
11:00 to 12:00 p. m.	Ambassador Coconut Grove Orchestra.

**A Suraco Installed in Your Phonograph**

Complete with Batteries and Tubes

**\$97.50**

Terms, If Desired

You will be more than pleased with the wonderful clarity and selectivity of this Radio.

We also carry the New Radiola Line

Satisfaction guaranteed. Call on us for a demonstration.

MUSIC AUDITORIUM, 8th FLOOR

*The Broadway Department Store*

BROADWAY - FOURTH AND HILL

ARTHUR LETTS, JR., PRESIDENT

## Evening Herald, Los Angeles

Phone METropolitan 5100  
Evening Herald Programs Via Radio Central Station KFI  
5:00 to 5:30—Daily except Sunday—Evening Herald News Items

**MONDAY, JULY 7—**

8:00 to 9:00 p. m. Evening Herald's Radiolians popular dance music. Oscar, Teel, baritone.

**WEDNESDAY, JULY 9—**

8:00 to 9:00 p. m. Kennedy Broadcasters of Long Beach. Charlie Wellman, tenor.

**FRIDAY, JULY 11—**

8:00 to 9:00 p. m. Lippincott Orchestra of Santa Ana. Oscar Teel, baritone.

## KJS—Bible Institute Radiophone—360 Meters

Owned and Operated by Bible Institute of Los Angeles, Inc.

**M. E. CARRIER, Manager.**

**PROF. J. B. TROWBRIDGE, Director of Programs.**

**SUNDAY, JULY 6—**

10:45 to 12:30 noon Regular services of the Church of the Open Door, including sermon by Dr. French E. Oliver. Mr. Henry J. Schlagel, bass soloist; Mr. Paul S. McConnell, organist.

6:00 to 6:45 p. m. Radio Vesper Service with sermon by Rev. John Hunter, Secretary of the Faculty, Bible Institute of Los Angeles. Mr. A. H. Ramseier, bass soloist; Mrs. A. H. Ramseier, accompanist; Mrs. Fern Barton, organist.

8:00 p. m. Sermon by Dr. French E. Oliver. Mr. Ernest P. Burley, tenor soloist; Mr. Paul S. McConnell, organist.

**TUESDAY, JULY 8—**

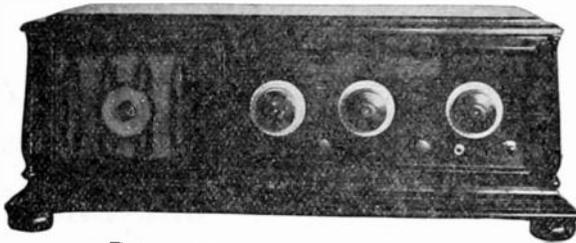
8:00 to 9:00 p. m. Miss Mary Adeline Bishop, organist. Vocal and instrumental selections.

**THURSDAY, JULY 10—**

8:00 to 9:00 p. m. Organ selections. Mrs. W. J. Schomberg, soprano.

# THE HOLLYWOOD

"THE STAR OF RADIO"



Price \$185.00 (Complete)

"Nothing more beautiful for the home—nothing more effective in operation."

Mahogany case, gold dials, batteries and speaker self-contained—no outside aerial necessary.

"TERMS IF DESIRED"

**JOE B. GRISSOM**

5723 Santa Monica Blvd.

Hollywood

Phone HEMPstead 2548

**Murdock Radio Head Phones "Standard Since 1914"**

# K F S G—Angelus Temple—278 Meters, 1080 Kilocycles

Echo Park, Los Angeles, Cal.

Evangelist Aimee Semple McPherson, Pastor

## SUNDAY, JULY 6—

- 10:30 to 12:30 noon Complete morning service. Sermon by Aimee Semple McPherson. Organ and Chimes, Esther Fricke Green. Triple Male Quartet, John Walker, tenor. Blanche Scott.
- 2:30 to 4:30 p. m. Frank E. Brown, evangelistic singer. Choir. Silver Band, Gladwyn Nichols, director. Roy Reid Brignall, Organist. Evangelistic address by Aimee Semple McPherson.
- 7:00 to 9:30 p. m. Silver Band, Choir, Male Quartet. Isabelle Wilson Corning, Soprano; Esther Fricke Green, Organist. Great Salvation Sermon and Altar Call. Aimee Semple McPherson.

## TUESDAY, JULY 8—

- 3:30 to 4:00 p. m. Organ recital, Esther Fricke Green.
- 4:00 to 5:30 p. m. Ruth Boesch Woods, soprano; A. L. Stark, tenor; Blanche Scott, soprano; Sarah Karcher, violinist; Dorothy Sauter, 'cellist; Betty Zwick, soprano; Esther Green, accompanist and soloist.
- 6:30 to 7:30 p. m. Kozy Hour program. Mr. and Mrs. A. T. Heard, cornet and trombone; Mrs. V. D. Clair, soprano; Frank E. Brown, baritone; Roy Reid Brignall, accompanist and soloist.
- 8:00 to 9:00 p. m. Auditorium Service. Sermon by Aimee Semple McPherson.
- 9:00 to 10:00 p. m. Grey Studio program, presented by John Hall's Swanee Jubilee Singers, and the Sierra Trio of Pasadena.
- 10:00 to 10:30 p. m. Organ recital, Roy Reid Brignall.

## WEDNESDAY, JULY 9—

- 2:30 to 4:30 p. m. Auditorium Service. A message of comfort and hope for the sick, afflicted and shut-in from Aimee Semple McPherson.
- 6:30 to 7:30 p. m. Kozy Hour program. Annie Lacey, child soprano; Marjorie Warwick, soprano; Marian Wyant, contralto; Ruth Frances Thomas, accompanist and soloist.

## THURSDAY, JULY 10—

- 3:30 to 4:30 p. m. Program presented through the courtesy of B. Ernest Ballard, organist, assisted by Margaret Kennedy, lyric soprano; Harold Lloyd, tenor.
- 4:30 to 5:30 p. m. Hazel Linkogel, violinist; Cornelia Pollard, soprano; Isabelle Wilson Corning, soprano.
- 6:30 to 7:30 p. m. Kozy Hour program given by Cousin Jim (Harry James Beardsley) and associates.
- 8:00 to 9:00 p. m. Pasadena Elks' Band, No. 672, assisted by W. W. McCann, baritone, and the Elks' Quartet. Baptismal Service, Aimee Semple McPherson.
- 9:00 to 10:00 p. m. Grey Studio program, Pasadena Elks' Band No. 672. Temple Choir, Gladwyn Nichols, director. Jennie M. Durkee, ukulele, guitar and banjo teacher.
- 10:00 to 10:30 p. m. Organ recital, Esther Green.

## FRIDAY, JULY 11—

- 3:30 to 4:00 p. m. Organ recital, Roy Reid Brignall.
- 4:00 to 5:30 p. m. Dobbins' Student Orchestra of Fullerton High School. Thomas Johnson, baritone; Ruth Russell, soprano. Mr. and Mrs. E. C. Mills in solos, duets and readings. Roy Reid Brignall, accompanist and soloist.
- 6:30 to 7:30 p. m. Kozy Hour program. Ada Lantz, soprano; Floyd Marvin, tenor; S. T. Lashbrook, tenor; Ruth Frances Thomas, accompanist and soloist. Blanche Clay.
- 9:00 to 10:00 p. m. Edendale Concert Company, Mary Watts, manager, assisted by Madame Eleanor Doty, prima donna; J. Donald Thrail, baritone; Louis Low, flutist; Mildred Anderson, mezzo soprano; Emma Wendt String Trio; Mary Watts, contralto.
- 10:00 to 10:30 p. m. Organ recital, B. Ernest Ballard.

## SATURDAY, JULY 12—

- 3:30 to 5:00 p. m. John Kennedy, baritone. Members of the children's church in readings and vocal and instrumental music.
- 5:00 to 5:30 p. m. Organ recital, Roy Reid Brignall.
- 6:30 to 7:00 p. m. Goldie Blasman, violinist, age 12; Master Jerome Bleeker, accompanist and soloist, age 12.
- 7:00 to 7:30 p. m. Auditorium, Congregational singing and special music. Programs sacred, classic and educational.

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TUESDAY, July 8—Between 2:30 and 3:30 p. m.

WEDNESDAY, July 9—About 7:00 p. m.

THURSDAY, July 10—Between 2:30 and 3:30 p. m.

SATURDAY, JULY 12—About 7:00 p. m.

California Theatre Concert Orchestra of fifty musicians; Carli D. Elinor, director. Concert program given in conjunction with the photoplay, "The Rejected Woman," the current attraction at the California.



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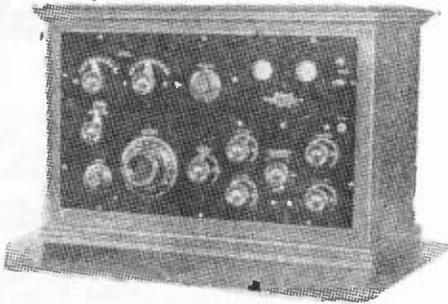
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OPEN SATURDAY EVENINGS

**KLX—Oakland Tribune Radiophone—509 Meters**

FOR WEEK BEGINNING SUNDAY, JULY 6

**SUNDAY, JULY 6—**

9:30 to 10:00 p. m. Talk by Rev. John Snape, pastor First Baptist Church of Oakland, with sacred songs before and after the talk by members of the choir of the First Baptist Church.

**DAILY—**

3:00 to 5:00 p. m. News items, baseball scores, all leagues, local game play by play. (Except Sunday and Monday.)

7:00 to 7:30 p. m. News items, United States Weather Bureau report, market and financial news. (Except Sunday.)

**MONDAY, JULY 7—**

8:00 to 10:00 p. m. Educational and musical program broadcast from Stephens Union Hall, University of California, over private leased wires through KLX.

**WEDNESDAY, JULY 9—**

8:00 to 10:20 p. m. Studio program and music from the American Theater. Studio program: 1, Vocal selections—(a) Ernani (opera Ernani) (Verdi); (b) Silver Threads Among the Gold (Dank); (c) April Morn (Batten)—Mme. Dorothy Raegen Talbot, coloratura soprano; Claire Darrimon, accompanist. 2, Cornet solo—The Bride of the Waves (Clarke)—George H. E. Green. 3, Review of Andrew W. Mellon's book, "Taxation, the Peoples Business," arranged by Lawrence Drake of the book department of the White House, San Francisco—J. S. Curran, assistant vice-president of the Anglo and London Paris National Bank, San Francisco, reviewer; (this will be the first of a series of book reviews arranged by the White House). 4, Vocal selections—(a) Old Folks at Home; (b) Vale (Russel); (c) Caro Nome (opera Rigoletto) (Verdi)—Mme. Dorothy Raegen Talbot, coloratura soprano; Claire Darrimon, accompanist; 5, English Concertina solos—National songs—J. W. Green. 6, Vocal solo—The Wood Pigeon (Lehman)—Mrs. G. H. E. Green. 7, Cornet and trombone duet—Excelsior (Balfe)—George H. E. Green and J. W. Green (Green & Son). 8, Overture by American Theater Orchestra, Owen Sweeten, director, broadcast over private leased wires through KLX. 9, Pianoforte solos—(a) Sonata Pathetique (Beethoven); (b) Andante Finale (Lammermoor) (for left hand only)—Mrs. G. H. E. Green. 10, Cornet solo—The Lost Chord (Sullivan)—George H. E. Green. 11, Vocal solo—The Little Brown Owl (Sanderson)—Mrs. G. H. E. Green. 12, Trombone solo—The Death of Nelson (Braham)—J. W. Green. 13, Concertina solo—Simple Aveu (Thome)—J. W. Green. 14, Cornet solos—(a) Inflammatus (from Stabat Mater) (Rossini); (b) Music written to Tennyson's "Dirge" by soloist and harmonized by J. W. Green—George H. E. Green. 15, Organ recital by Clement Barker, broadcast from the American Theater over private leased wires through KLX.

**FRIDAY, JULY 11—**

8:00 to 10:20 p. m. Studio program and music by the American Theater orchestra. Studio program: 1, Vocal solos—(a) Musettas Waltz (La Boheme) (Puccini); (b) Down in the Forest (Ronald)—Dorothy Buechner, soprano soloist, Plymouth Congregational Church of Oakland. 2, Instrumental selections—"Hono Hono Hawaii" and "Amama"—Hawaiian Harmony Kings. 3, Vocal selections—(a) Lindy Lou (Strickland); (b) Pierrot (Watts)—Dorothy Buechner, soprano. 4, Instrumental selections—(a) Wavalko; (b) Matsonia; (b) Honolulu Blues—Hawaiian Harmony Kings. 5, Vocal selections—Group 1—Hazel Carlson Wood. 6, Instrumental selections—(a) Milahai; (b) A Smile Will Go a Long Long Way; (c) Lonesome Mama Blues—Hawaiian Harmony Kings. 7, Vocal selections—Group 2—Hazel Carlson Wood. 8, Instrumental selections—(a) Leihua; (b) March;

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(Pacific Time)

## KGO Program in Brief

**SUNDAY, JULY 6—**

3:00 p. m.

Concert by KGO Little Symphony Orchestra and soloists, Carl Rheohamel, conducting.

**MONDAY, JULY 7—**

1:30 p. m.

3:00 p. m.

4:00 to 5:30 p. m.

6:45 p. m.

8:00 p. m.

New York Stock Exchange and U. S. Weather Bureau reports. Short musical program. Speaker furnished through the courtesy of the Parent-Teacher Associations of the San Francisco Bay District. Hotel St. Francis Dance Orchestra, San Francisco. Final reading, Stock Exchange and weather reports, and news items. Educational program, with musical numbers. Courses in Agriculture, Spanish, Music, Economics and Literature.

**TUESDAY, JULY 8—**

1:30 p. m.

4:00 to 5:30 p. m.

6:45 p. m.

8:00 p. m.

New York Stock Exchange and U. S. Weather Bureau reports. Concert Orchestra of the Hotel St. Francis, San Francisco. Final reading, Stock Exchange and weather reports, and news items. Neapolitaine Four; Isabella Engle, soprano; Edward Leslie, violinist; Georgette Schiller, coloratura soprano; Luther E. Stein, baritone; one-act comedy, "The Florist Shop"; Mærlle Floyd, dramatic soprano; Edwin Heinsohn, baritone.

Part Two of the program furnished by Etude Musical Club of Portland. Etude Club Chorus; Harry Pierson, tenor; soprano and contralto duet, Sadie Phipps and Carrie Taylor; Owen A. Troy, violinist; Women's Chorus; Ladies' Quartet; Louaida Johnston, contralto; Vocal Trio.

10 p. m. to 1 a. m.

Hotel St. Francis Dance Orchestra, San Francisco.

**WEDNESDAY, JULY 9—**

1:30 p. m.

3:00 p. m.

4:00 to 5:30 p. m.

6:45 p. m.

New York Stock Exchange and U. S. Weather Bureau reports. Short musical program. Address, "Responsibilities of the Press," by James E. Wales.

Concert Orchestra of the Hotel St. Francis, San Francisco. Final reading, Stock Exchange and weather reports, and news items.

**THURSDAY, JULY 10—**

1:30 p. m.

4:00 to 5:30 p. m.

6:45 p. m.

8:00 p. m.

New York Stock Exchange and U. S. Weather Bureau Reports. Concert Orchestra of the Hotel St. Francis, San Francisco. Final reading, Stock Exchange and weather reports, and news items. Three-act drama, "Passing of the Third Floor Back," under the direction of Wilda Wilson Church. Music between the acts by Neapolitaine Four.

**FRIDAY, JULY 11—**

1:30 p. m.

3:00 p. m.

4:00 to 5:30 p. m.

6:45 p. m.

New York Stock Exchange and U. S. Weather Bureau reports. Short musical program and one-act play. Concert Orchestra of the Hotel St. Francis, San Francisco. Final reading, Stock Exchange and weather reports, and news items.

**SATURDAY, JULY 12—**

12:30 noon.

4:00 to 5:30 p. m.

8:00 p. m.

New York Stock Exchange and U. S. Weather Bureau reports. Concert Orchestra of the Hotel St. Francis, San Francisco. Program given by San Jose Scouts' Band, San Jose, California, Edward Towner, director. Mrs. George W. MacMillan, soprano; Saxophone Quartet; G. Franklin Roberts, baritone; saxophone solos, Paul King; Joseph McIntyre, pianist; Ed Moore, cornetist; D. E. Neal, basso; Edna Kindall, pianist.

10 p. m. to 1 a. m.

Hotel St. Francis Dance Orchestra, San Francisco.

**TUESDAY, JULY 8—8:00 P. M.**

## Part One

Instrumental Selection—Dance of the Hours.....Ponchielli

Neapolitaine Four

## Soprano Solos—

(a) Una voce poco fa.....

Rossini

(b) Zemire and Azor.....

Espohr

Isabella Engle

Mabel Saunders, Accompanist

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One-Act Comedy—"The Florist Shop".....Hawbridge  
Cast

Maud, the Florist's bookkeeper ..... Vera Frances Morse  
Henry, the office boy ..... C. A. Anderson  
Slovak, proprietor of the shop ..... W. J. De Gloria  
Miss Wells, a timid, talkative spinster ..... Mary Harper  
Mr. Jackson, the spinster's fiance ..... Henry Flako

Under the direction of Wilda Wilson Church  
Dramatic Soprano Solo—"Pace mio dio (from "La Forza del Destino")" ..... Verdi  
Merle Floyd

Ruth Burlingame, Accompanist  
THURSDAY, JULY 10—8:00 P. M.

## "PASSING OF THE THIRD FLOOR BACK"

A Drama in Three Acts. By Jerome K. Jerome. Played by the KGO Players. Under the Direction of Wilda Wilson Church.  
Cast

Mrs. Sharp	Mary Harper
Stacia	Lallie
Miss Kite	Vera Frances Morse
Mrs. de Hooley	Florence Palmer
Mrs. Thompson	Evelyn Avery
Major Thompson	Burt Horton
Vivian Thompson	Edna Jones
Christopher Penny	Charles Field
Jape Samuels	Barry Hopkins
Harry Larchom	Fred Thomas
Joey Wright	Guy Kibbee
The Stranger in the Third Floor Back	Richard Hotaling
Instrumental Selection—Je-T'aimie	E. Waldteufel

Neapolitaine Four  
Act I

Instrumental Selection—Polish National Dance ..... Wieniawski

Neapolitaine Four  
Act II

Instrumental Selection—Hungarian Dance No. 1 ..... Brahms

Neapolitaine Four  
Act III

Instrumental Selection—The Jolly Coppermith ..... Peter

Neapolitaine Four  
SATURDAY, JULY 12—8:00 P. M.

This program given by the San Jose Sciots' Band, San Jose, California. Edward Towner, director.

March—Invincible Fidelity ..... Fradeneck  
San Jose Sciots' Band

Soprano Solos—  
(a) Stars of Normandy ..... Stephen Adam  
(b) The Dustman ..... Molloy

Mrs. George W. MacMillan  
George W. MacMillan, Accompanist

Instrumental Selection—Selection from "Faust" ..... Gounod

Saxophone Quartette

Medley of Patriotic and War Song Melodies ..... Hayes  
San Jose Sciots' Band

Baritone Solos—  
(a) For All Eternity ..... Mascheroni  
(b) O Heart of Mine ..... Clough-Leighter  
G. Franklin Roberts

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1:00 to 2:00 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.

**K F O A—Pacific Northwest Station—455 Meters**

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MONDAY, JULY 7—

8:30 p. m. Carnation Milk Products Company presenting their monthly program of dance music, furnished by Babb's B. B. Ladies' Orchestra.

WEDNESDAY, JULY 9—

8:30 p. m. The Metropolitan Building Company of Seattle presenting their regular monthly program of vocal and instrumental music, under the direction of Freda Tilden, Publicity Manager.

FRIDAY, JULY 11—

8:30 p. m. The Kiwanis Club of Seattle, giving the first of a series of civic club programs, will furnish an instructive and entertaining program featuring the Camp Fire Girls, an organization which is strongly supported and sponsored by the Kiwanis Club. An instructive talk will be given on Kiwanis activities. The Camp Fire Girls' 20-piece orchestra will render several selections. Tenor, soprano and violin solos will make up the balance of this wonderful program.

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**KGW—The Morning Oregonian—492 Meters**PORTLAND, OREGON  
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PROGRAM FOR WEEK JULY 6 TO JULY 12, 1924

11:30 a. m. Daily except Sunday—Government weather forecast.  
7:30 p. m. Daily except Sunday—Government weather forecast and market reports.**SUNDAY, JULY 6—**

6:00 p. m. Church services conducted by Rt. Rev. Walter Taylor Sumner, Bishop Episcopal Diocese of Oregon.

**MONDAY, JULY 7—**

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

7:15 p. m. Police reports.

8:00 to 10:00 p. m. Concert featuring Harriet Leach, soprano; Florence Leach, contralto; Loise Jacobson, pianist, and others.

**TUESDAY, JULY 8—**

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

7:15 p. m. Police reports.

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

**WEDNESDAY, JULY 9—**

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

7:15 p. m. Police reports.

8:00 p. m. Concert.

10:00 p. m. Dance music by George Olsen's Metropolitan Orchestra of the Hotel Portland. Intermission, solos by Rayberta and Margory Reed, juvenile artists of Salisbury, Mo.

**THURSDAY, JULY 10—**

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

7:15 p. m. Police reports.

8:00 p. m. Concert.

10:00 p. m. Dance music by George Olsen's Metropolitan Orchestra of the Hotel Portland. Intermission, solos by Gracia Stewart, mezzo-soprano.

**FRIDAY, JULY 11—**

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

7:15 p. m. Police reports.

10:30 p. m. Hoot Owls.

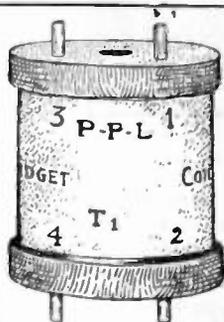
**SATURDAY, JULY 12—**

11:30 a. m. Weather forecast.

3:30 p. m. Children's musical program by pupils of Marie C. Dooley. Story hour.

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

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## WFAA—Dallas News-Journal—476 Meters

(PACIFIC TIME) DALLAS, TEXAS

MONDAY, JULY 7—

6:30 to 7:30 p. m.

L. J. Cook and his String Band from Farmers Branch, Texas.

TUESDAY, JULY 8—

10:30 to 11:30 a. 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.

Miss Lucile Lechner and assisting entertainers from Terrell, Texas.

9:00 to 10:00 p. m.

Musicians from the Melba Theater.

WEDNESDAY, JULY 9—

10:30 to 11:00 a. m.

Musical program by the Jackrabbits Orchestra.  
Station WFAA will be silent for remainder of the day.

THURSDAY, JULY 10—

10:30 to 11:00 a. m.

Dr. A. D. Laugenour of the Dallas Astronomical Society telling of "Why Days and Nights Vary in Length," and the economic effect. Varied program of voice, piano, reading, violin and guitar, arranged by entertainers directed by W. W. Murphy of the Dallas Journal. Mustang Serenaders' Orchestra.

6:30 to 7:30 p. m.

9:00 to 10:00 p. m.

FRIDAY, JULY 11—

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.

Musical recital. George A. Nicoud, simulating old-time music-box program; W. W. Macbeth and his Harmonica Harmonists.

SATURDAY, JULY 12—

1:30 to 2:00 p. m.

Old-time music, Capt. Charles H. McKinney and old fiddlers.

6:30 to 7:30 p. m.

Musical recital. Dr. Richard Mandell and assisting entertainers from Denton, Texas.

9:00 to 10:00 p. m.

Dance music program of the Adolphus Hotel Orchestra, Lawrence Morrell directing, playing in Bambooland, the roof garden dancing floor. The broadcast is a courtesy from R. B. Ellifritz, managing director of the Adolphus.

SUNDAY, JULY 13—

4:00 to 5:00 p. m.

Radio Bible Class. William M. Anderson, pastor First Presbyterian Church, teacher; Bible study and Gospel song.

5:45 to 7:15 p. m.

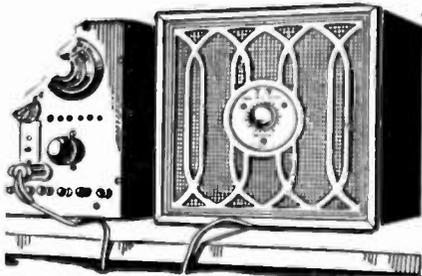
City Temple Presbyterian Church, Dr. L. D. Young, pastor; opening period by City Temple Orchestra, Prof. A. A. Cruze, director; Harry M. Gibney, director of singing; J. Wesley Hubbell, director of choir and of children's chorus; Miss Katherine Hammons, organist.

7:30 to 9:00 p. m.

Footwarmers Orchestra, Edward Russell, managing.

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- 5:00 p. m. Sport review.
- 9:00 to 10:00 p. m. Popular program.

**MONDAY—**

- 7:30 to 8:45 p. m. Concert by Mrs. Herman Church and her mandolin orchestra. (G. C. A.)

**TUESDAY—**

- 7:30 to 8:45 p. m. Concert by Jack Davis, pianist, of Dallas. (G. C. A.)

**WEDNESDAY—**

- 7:30 to 8:45 p. m. Concert by the old-time fiddle band of Krum, Texas. (G. C. A.)

**THURSDAY—**

- 7:30 to 8:45 p. m. Organ concert by Will Foster, organist of the First Methodist Church. (G. C. A.)

**FRIDAY—**

- 7:30 to 8:45 p. m. Concert by Fred Wagner and his Hawaiian Trio. (G. C. A.)

**SATURDAY—**

- 5:00 to 5:40 p. m. Review of the Interdenominational Sunday School Lesson and Radio Bible Class by Mrs. W. F. Barnum.

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Davenport, Iowa—Pacific Time

**SUNDAY, JULY 6—**

- 6:00 p. m. Church Service—Rev. Edwin W. Lanham, D. D., Pastor First Congregational Church, Galva, Ill. Subject of sermon, "Christ's Secret of Happiness." Music under direction of Mildred Hanlon.
- 7:30 p. m. Musical Program (1½ hours). The Palmer School Radio Orchestra. Erwin Swindell, conductor, assisted by Chas. Kerns, tenor, and Harry Yeazelle Mercer, tenor.

**MONDAY, JULY 7—**

- 6:00 p. m. Musical Program—Etta B. Stilles, reader; Maggie Marsh, violinist; Louis Crowder, pianist.
- 8:00 p. m. Musical Program—Program furnished by the "Pasadena" Orchestra, of Sterling, Illinois.

**TUESDAY, JULY 8—**

- 4:00 p. m. Sport news and weather forecast. (No broadcasting after 4:00 p. m. Tuesday—silent night for WOC.)

**WEDNESDAY, JULY 9—**

- 6:00 p. m. Organ recital from the B. J. Palmer residence. Erwin Swindell, organist. Mrs. John Malloy, soprano, presenting popular numbers of a few years ago.

**THURSDAY, JULY 10—**

- 7:00 p. m. Orchestra Program (1 hour)—The Palmer School Radio Orchestra. Erwin Swindell, conductor. Featuring: "Marcheta" (fantasy), "Sweetest Little Rose in Tennessee," "Gloomy Moon," "Dream Girl," "China Eyes," "Golden Dreams," "Drifting to You." (Popular selections released through the National Association of Broadcasters, of which WOC is a member.) Ralph W. Fuller, baritone soloist.

**FRIDAY, JULY 11—**

- 6:00 p. m. Musical Program (1 hour)—Bernice Vaz, contralto; Richard Everett, pianist; Billie Buren, boy soprano; Phil Lioen, tenor; Dewitt Depue, violinist.
- 7:00 p. m. Weekly Tourists' Road Bulletin, as compiled by Touring Bureau, Davenport Chamber of Commerce.

**SATURDAY, JULY 12—**

- 7:00 p. m. Orchestra Program (1 hour)—The Palmer School Radio Orchestra. Erwin Swindell, conductor. Featuring: "Believe Me," "I've Got a Feelin' for Ophelia," "In a Rendezvous with You," "Dream Maker of Japan," "Girl of My Heart," "Sorry for You," "In Old Monterey." (Popular selections released through the National Association of Broadcasters, of which WOC is a member.) Ralph W. Fuller, baritone soloist.

K E N N E D Y

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WE REPAIR AND SERVICE SETS AT YOUR HOME OR IN OUR SHOP

**K S D—The St. Louis Post-Dispatch—546 Meters**

Weekly Program Week of July 6—Central Standard Time  
(No Daylight Saving in St. Louis)

**SUNDAY, JULY 6—**

7:00 p. m. Music program broadcast direct from Grand Central Theater.

**MONDAY, JULY 7—**

5:00 p. m. Concert by Abergh's Concert Ensemble; Arne Arnesen, violinist; broadcast direct from Hotel Statler Roof Garden.

7:00 p. m. Evarista Cotter, reader; Grace Cantwell, pianist.

9:00 p. m. Broadcasting direct from Hotel Statler Roof Garden, dance music played by Rodemich's Orchestra.

**TUESDAY, JULY 8—**

SILENT.

**WEDNESDAY, JULY 9—**

6:00 p. m. Music and specialties at Del Monte Theater broadcast direct from that theater.

**THURSDAY, JULY 10—**

SILENT.

**FRIDAY, JULY 11—**

6:00 p. m. Silverman's Orchestra concert broadcast direct from Lyric Skydome.

**SATURDAY, JULY 12—**

6:00 p. m. Missouri Theater Orchestra and specialties broadcast direct from Missouri Theater.

**Murdock Radio Head Phones "Standard Since 1914"**

**RADIO A BATTERIES**

100 Amp. Hours .....	\$10.00
120 Amp. Hours .....	12.00
Special for 199 Tubes .....	8.00

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Los Angeles, Calif.

## Letters to the Editor

DEAR EDITOR which broadcasts much intelligence, if any:

Would like to ask two or six questions which you don't have to answer unless you know. My cousin has made me nice radio sit with rejector tube and two stages of simplification at which it is nice to look, but not to listen. Is all many noises but are not unanimous. All I have picked up so far is ear ache.

My uncle on mother's side he say maybe so would be better if I put in neutral informer, but I think not so, because is too many all kinds informers now which make loud noise which don't mean anything.

Night before Wednesday I put on earmugs and turn all many dials to various points of compass and thought I heard something like soprano singer in distance or maybe in distress. But, no, it was not such. It was family cat which crowled in radio sit and received very bad shock between B battery and very able condenser. I write in my little book to show I have received station CAT. It is not very nice music which is made by family cat, but is best kind I have got up to twenty minutes after Friday, which is present time.

After much reflection my cousin he say maybe it would be better if I had reflex sit. Have tried same also and it has not made ear harness any more comfortable. As far as I have got a radio sit is nice place for spending quiet evening. Ear blinkers keep out all noises, so it is possible to meditate on Confucius, Magnum Johnson and inkum tacks.

My partner for business, which gets most of it, he say maybe I am not well grounded, which I cannot see how it is because I have been completely through Canton Business College. Anyway he tie wire to family wash boiler and bury it in back yard. Has not sprouted yet, so is impossible to tell how it will come out, if at all. Then, maybe so, say wise neighbor, is something the matter with my Aunt Anna. I tell him I have no such aunt, but he say she is on roof, at which I am much surprised. So he go up on roof.

When he come down is many all kind laughs. I ask him why so much merry hee hee and he say maybe would be better if my Aunt Anna should be made out of copper wire instead of string. Maybe so would, maybe so not. I will try this and let you know by post card or letter.

In the mean time my radio sit is fit for nothing only to make foolish noise. Hoping you are the same,  
CHINA BOY.

### KELCOIL THE WONDER TUNER



**\$6**

The Hook-up that all Radio experts are marveling over—FREE—to purchasers of KELCOILS. With the straight KELCOIL hook-up and two steps of amplification, P. J. Kelly, inventor of the KELCOIL, 1612 Orthodox Street, tuned in 2 L O, London, England. Loud speaker reception on 1 tube with KELCOIL. Try KELCOIL and hang up a few records.

DEALERS: Write for our price list Now!

### B. KRUGER & COMPANY

232 Douglas Bldg.

Third and Spring

Los Angeles

Phone TRinity 2308

## Asides From Cleveland Amuse Fans

The Microphone Hears All and Transmits It  
(By Washington Radio News Service)

Did you hear the funny impromptus which came via radio from the Cleveland Convention? Evidently there was no skilled announcer or operator standing by, as is always the case in broadcasting studios, to pull the switch, or cut out the microphone when something unforeseen occurs and side remarks and soto voce phrases are uttered in the neighborhood of the transmitter.

On one occasion a voluntary spokesman suggested to Chairman Mondell that he better put on the quartette or start something, as many of the delegates were "walking out" on him.

Another excited voice cried out in anguish to the chairman that there was a fight going on in one corner, and asked him if there was no authority to stop it. This was followed by the pertinent suggestion that the band be requested to play "The Star Spangled Banner" so as to quell the approaching riot. Although the National Anthem was not played, just then, the band did strike up with a selection and the fight subsided.

Just before he took the platform, one noted delegate was heard arguing with the chairman as to whether he could have five or ten minutes in which to speak his piece.

On the whole it sounded a bit like being behind the scenes during a none-too-good dress rehearsal, for not only asides were carried out to radioland via broadcasters in many cities, but coaching and prompting from the wings were noticeable. When the party platform was read, the reader was obviously handicapped because some one was holding copy on him and correcting his utterances.

## Dail to Decide on Irish Broadcasting

Unanimous recommendations that broadcasting be strictly a State service under the control of the Irish Postal Ministry has been made by a committee of the Dail Eirean, consular advices state. Considerable opposition to state control has, however, arisen in the Dail and among the business men. The opponents to the report of the committee say that the maintenance of a wireless station of this kind would be a financial burden to the country. The committee is revising its report, and the whole question is expected to be brought before the Dail for final decision within the next few weeks. In the meantime there is a large sale of receiving sets.

Twin babies, a boy and a girl, were born to Mr. and Mrs. J. Newton Bagley, Hastings, Nebraska, one day last week. Mr. Bagley is the radio expert for W. M. Dutton & Sons Co., and his friends have been busy trying to think of a suitable name for the twins. Newt hasn't O. K.'d any of the names yet, but is giving the matter serious consideration, as they appeal to him rather forcibly on account of their connection with matters in which he is so deeply interested. He is rather partial at this time to "Neut" and "Het"—for neutrodyne and heterodyne. The first one matches "Dad" Bagley's name, and of course that is partially the reason it gets the first chance. Another suggestion has been "Kayeff" and "Kayex," but while these are quite popular of late their is doubt of their adoption. Dad Bagley says if the "crystal" is not their official birthstone he is going to present a petition to the chief birthstone "announcer" to have the matter fixed up at once. Among other things with which this precious pair of kids are endowed, so says their proud papa, is a "loud speaker," and also that they seem to be exceptionally fond of broadcasting.

Come and hear MYERS TWO TUBE REFLEX RECEIVER—  
the loudest set in Los Angeles

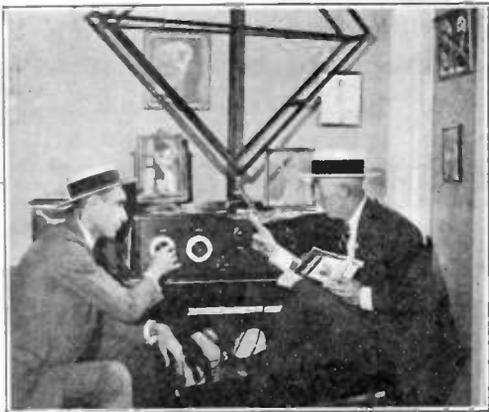
Price only \$60

**MYERS RADIO & ELECTRICAL SHOP**

Phone ANgelus 3370—3910 Brooklyn Ave.—Los Angeles

"Open Evenings"

## Letters to the Editor



Left to right: T. J. Crizer, Production Manager, and Jay A. Howe, Director, Hal Roach Studios, Culver City.

June 18, 1924.

Editor Radio Doings,  
308 Van Nuys Bldg.,  
Los Angeles, Cal.

Dear Sir—Several weeks ago I asked you to send me your magazine for a year, and I want to say that without it a radio set is incomplete.

Personally, I think that you have the most authentic radio magazine on the market. I, for one, would not be without it if it cost twice as much.

Enclosed find check for my subscription. Also sending you a picture of my Super-Hetrodyne which brings them in. Now you can see why I like "Radio Doings" so well.

Wishing you continued success, I am, respectfully,

JAY A. HOWE,  
Director for Hal E. Roach,  
Culver City, Cal.  
June 21, 1924.

Editor "Radio Doings":

Dear Sir: I wonder if any of your readers could kindly tell me what station was on the air at about 9:45 o'clock, June 20. Its wave length was about 450 meters. I heard music and baritone solos well, but the announcer was not plain. I heard him say, "I hope the Canadian National Railway will enjoy this number." There was short chimes after every number.

What station, on the same night, at about 300 meters, said, "Good Night"? After a few seconds I heard quite plainly: "WEAF, New York City." Then there was music, very faintly.

What is the power of KFQN? What is its broadcasting schedule?

Yours truly,

"ROSE CITY PARK,"

Portland, Oregon.

## Yale Crystal Rectifier

(Semi-Fixed)



**BEST FOR REFLEX**

Extremely Sensitive  
More Volume  
Good DX Reception

**TESTED AND GUARANTEED**

At All Dealers—\$1.25

Jobbers and Dealers—Write

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**YALE RADIO ELECTRIC CO.**

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## DEALERS:

The demand for Cosmopolitan Phusiformers is exceeding our fondest anticipation. Deliveries are being pro-rated. Get your orders in now for the—

# The Cosmopolitan Phusiformer

\$9.50

*The  
Missing Link  
in Radio*



1. No oscillation.
2. Non-radiating.
3. Sensitive to distant stations.
4. Freedom from hand capacity.
5. Synchronized and calibrated tuning.
6. Simple operation and construction.

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

### *Opinion of Experts;*

"YEAR'S GREATEST INVENTION".....New York Mail  
 "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 MASSA-  
 CHUSETTS STATIONS WITH GREAT VOLUME ON  
 LOUD SPEAKER. BUILDING PHUSIFORMER SET  
 FOR USE IN OUR OPERATING ROOM".....  
 .....Kansas City Star

*Phusiformers in Stock for Immediate Delivery*

## RADIO SUPPLY COMPANY

Successor to MOTOR CAR SUPPLY CO.

Open Evenings till 9 p. m. Telephone VAndike 6063

920 South Broadway

Los Angeles, Calif.

?? ??

June 25, 1924.

Being a novice at radio, I have some questions I would like to ask you, and trust that you can "clear" them up for me.

I have a three tube "Moto Radio" set, which was manufactured by the "Radio Shop," Sunnyvale, California, and as I understand it, they are not in business any more.

Now, as this set was a present to me some few weeks ago, I am of course at a loss to understand some points of operating it to get the best results.

A.—I am located very close to KFSE and KJS. When trying to get other stations I cannot cut them out. Why?

B.—I get Oakland only when the air around Los Angeles is silent, and then only very faintly. What would my trouble be?

C.—I am using a "Willard" auto storage battery. Is this all right?

D.—How far should I be able to hear with this set?

Any information you can give me will be greatly appreciated, as I am a patient at the "Barlow T. B. Sanatorium" and cannot get out to get any information about my set.

Thanking you in advance for any information you can give me, I remain,

Yours very truly,

A. J. GREGORY,

Barlow Sanatorium, Los Angeles.

Answer: Use antenna not over thirty feet long for local reception, and about 100 feet long for distant reception. Your set is very broad tuning and it is impossible to make a change for selectivity without tearing into set.

Pasadena, Calif., June 16, 1924.

A friend of mine has built a one-tube Harkness set. This set works fine for volume. Long Beach is coming in great, but KFI comes in on nearly the same wave.

The coils are wound on paper tubes, but with No. 24 D. C. C. wire; - New York and 1 no name. (Both 23-plate plain condensers.) Using 2 good spark intensifiers to hold coils. Cuttler-Hammer 6 ohm rheostat 301A-tube. General Radio audio frequency, 3 to 1 transformer. Detector cup is part of a tire gauge and standard for cat whisker is part of tube valve. Jack is made of parts of automobile ignition switch. Plug is standard telephone, switchboard is 3 lead. "A" battery is O. K. "B" battery is about 65 volts. Antenna is one wire, about 70, including lead-in, and 25 feet high, running east and west, lead on east end, with Federal 2200 ohms and Brandes Superior phones.

Question.—Could you give me any reason why KFI comes in nearly on KFON's wave? Answer through Radio Doings.

Yours sincerely,

M. W. CARR, 574 N. Los Robles Ave., Pasadena, Calif.

Answer.—You are listening to KFI harmonic, which is approximately KFON wave.

## Form a Habit of Dealing With Reliable Radio Dealers — It Pays!

Buy your Tube and Battery renewals where you have the assurance that the Stock is Fresh and the Service is 100%

### STONE ELECTRIC SUPPLY CO.

710 West Pico, at Figueroa  
Masonic Temple Bldg., Los Angeles

"Always a Place to Park Your Car Nearby—No Parking Limits"

ATlantic 7043

—Telephones—

ATlantic 1155

# ANNOUNCING

*The Finest, Smallest,  
Lightest Variable  
Condenser in RADIO*

PREMIER

## Crofoot

Trademark

**VARIABLE  
CONDENSER**

*"The Condenser with the  
Red Stripe"*

In making this important announcement, we do not hesitate in saying, and without reservation, that the NEW PREMIER CROFOOT VARIABLE CONDENSER is the finest Condenser yet devised—a real achievement of scientific engineering.

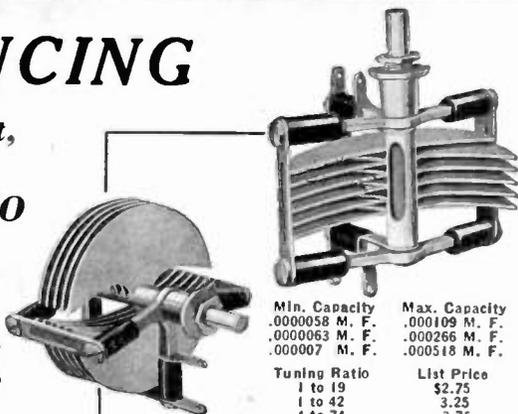
We make this statement advisedly. We stand ready and willing to substantiate every claim which we make for this wonderful new condenser.

The new CROFOOT has the greatest tuning ratio, and the greatest tuning range for given capacity. In operating efficiency it is unexcelled. It is the smallest and lightest standard type condenser made. Read the data in column at the right. It should convince you of CROFOOT'S superiority—"The Condenser with the red stripe."

If more proof of the superiority of the New CROFOOT Variable Condenser is desired, ask us for it.

**JOBBERS:** Deliveries on this new Condenser will begin August 15th. Only responsible jobbers who get their schedules to us in good time can be assured of deliveries when deliveris mean money to you.

**DEALERS:** Get your orders in to your jobber early. The CROFOOT will be in big demand—our publicity will make it so.



Min. Capacity	Max. Capacity
.0000058 M. F.	.000109 M. F.
.0000063 M. F.	.000266 M. F.
.000007 M. F.	.000518 M. F.
Tuning Ratio	List Price
1 to 19	\$2.75
1 to 42	3.25
1 to 74	3.75

### *Proof of Superiority and Efficiency*

1. Hitherto unattained low value of minimum (full out) capacity, which gives condenser widest and sharpest tuning range yet attained. See data above.
2. Extremely low phase angle (wattless current) loss being only 1/12 of one degree or 5 minutes. This means discharge efficiency of over 99.5%.
3. Absolute minimum of insulation leakage (rotor to stator) as rotor insulators are of best quality hard vulcanized rubber, are spaced great distance from rotor and stator plates, and are situated in weakest section of stator electrostatic field.
4. Semi-straight line (wave meter) plate design which separates low wave length signals far apart on dial, and permits sharp tuning on all wave lengths.
5. Condenser heads are nicked brass and electrostatically a part of the rotor, thus reducing hand effect on critical circuits to a minimum.
6. All plates securely soldered in assembly which obviates spasmodic contacting and its attendant crashing noises.
7. Lacquered rotor and stator assemblies, thus eliminating dust sputters (a scratching trouble often laid to poor rotor contact).
8. Entire condenser of hard brass which gives condenser zero resistance and consequently conserves very weak signals at their maximum strength.
9. Double spring rotor contacts which may be strapped in parallel by user, thus making rotor contact doubly sure and consequently doing away with need for pigtail connections.
10. Rotor and stator terminals at each end of condenser to facilitate neat wiring.
11. Condenser equipped with thimble mounting, which makes possible one-hole drilling and mounting.
12. Long mounting bushing which holds stator plates still farther away from panel, and consequently again reduces hand effect in critical circuits.
13. Bevel (cone) bearings on each end of rotor shaft, which eliminates inherent side or end play and prevent same being produced when condenser is mal-adjusted.
14. Compact design (smallest large capacity plate condenser yet manufactured).

## Premier Electric Company

Est.  
1905

3814 Ravenswood Ave., Chicago

Western Sales Office—1612 Maple Ave., Los Angeles, Cal.

*Watch Premier This Year*

???

Dear Sir:

Question.—As I have been reading the letters in your magazine for some time, I have a little question that I think you could most likely answer for me.

I have a one-tube Harkness reflex, that I built myself. I like it very much, with the exception of one fault, and here it is:

When I have my dials at zero I get KFON, KFSG and KFAW. When KFON comes in it drowns the others out. Is there any way I could fix this set to make it more selective. KFON comes in very broad. I use no fixed condensers or grid leaks. My aerial is about 50 feet long, with a 20-foot lead-in. I use two New York variables.

Yours in Radio,

ARCHIE V. FRASER, 1071 Linden Ave., Long Beach, Calif.

Answer.—Decrease length of antenna.

Mr. Editor:

Question.—I have had quite a lot of trouble with my set, as it don't work right. I burnt out the filament of one of my tubes, but it don't work right on the plate or grid. Is that a fault of the tube? I got a new tube and it worked O. K. Also have been using a cat's whiskers crystal. Would I get more oscillation by using a permanent one? I get your magazine every week, and it is sure fine. The best there is.

Hoping for an early answer, and yours for a greater radio.

L. A. SCOTT, S. S. W. S. Miller, Standard Oil Co., San Pedro, Calif.

Answer.—You cannot use a crystal detector to any advantage. Mail us your circuit.

### Murdock Radio Head Phones "Standard Since 1914"

## 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.

THE CANNON-BALL will add greatly to your Radio pastime.

They bear the Usual money-back guarantee.

*Southern California Distributor*

**W. J. PLATT**

420 East Cypress Street

Glendale, California

Carried by First Class Dealers and Jobbers.

**CANNON & MILLER CO., INC. Factory SPRINGWATER, N. Y.**

*Of each Kennedy radio set, Kennedy asks, not "Is it good?" but "Is it excellent?" Not merely "Will it satisfy?" but "Will it win unreserved praise?"*

K E N N E D Y




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WHOLESALE ONLY

Dealers, our policy is EXCLUSIVE

**KIERULFF & RAVENSCROFT**

1630-1632 South Los Angeles Street, Los Angeles, Calif.

Phones: ATLantic 3125—ATLantic 3303

???

June 17, 1924.

Dear Sir:

I would like you to answer the following questions:

- Question 1.—I have a "Harkness reflex set," using two Cunningham C-301A tubes, and a six-volt 110-amp. storage battery. My aerial is 100 feet long and 30 feet high, and using water pipe for a ground. Is this O. K.?
- 2.—I receive KGO, KFI, KJS and KHJ fine, but KFSG, KFON and KFAW are all a jumble. How can I make my set more selective?
- 3.—What would I have to do to change my crystal to a vacuum tube?
- 4.—Would a 10 to 1 transformer increase my range?

Please answer in enclosed envelope.

Yours truly,

STEPHEN MAXWELL, Box 157 Olive, California.

P. S.—Couldn't get along without "Radio Doings."

Answer 1.—Do not change crystal to tube.

2.—Your antenna is too large.

3.—A 10-1 transformer would increase volume but not distance.

"Radio Doings,"

308 Van Nuys Building, Los Angeles, California.

Dear Sir: Would you recommend this circuit? I think it is a good one. If so, will you publish it somewhere in "Radio Doings"?

Find the circuit enclosed.

Yours truly,

JACOB STOLL,

6222 and 612 R. K, Fillmore, California.

Answer: This is not a good receiving circuit, due to the fact that it will radiate badly, bothering your surrounding neighborhood.

# The Caraflex Portable

The set you want for your summer trips. Made to order and to suit your own particular requirement.

*Super-Heterodyne Specialists*

Come in and listen to the 3-tube "CARAFLEX"



A Statement by

## Gordon C. Sleeper

The SLEEPER RADIO CORPORATION will shortly announce the new TYPE 54 MONOTROL.

In my opinion no set ever made so nearly meets the ideas of 28,000 radio dealers in the United States as to what they want to sell and what the public wants to buy.

The TYPE 54 MONOTROL establishes new standards of engineering and mechanical design. It is the supreme development of the GRIMES Inverse Duplex Circuit.

A Cabinet of Inlaid African Mahogany with the finish of a Steinway. A panel of etched bronze to please the most discriminating eye.

The new Sleeper DUAL Condenser used in this set allows tuned radio frequency on one dial, and by its sharp-tuned efficiency, points the way to obsolescence of sets with two, three or more tuning dials.

The New Monotrol will operate on loop only, on ground only, or on aerial and ground. It uses either storage battery or dry cell tubes.

The set is the result of an entire year's research by DAVID GRIMES, Chief Engineer of the SLEEPER RADIO CORPORATION, in collaboration with H. C. DOYLE.

It incorporates features that are an absolute challenge to the Radio Industry.

The TYPE 54 MONOTROL is worth waiting for.

(Signed) GORDON C. SLEEPER, President.

# Sleeper Radio Corporation

88 Park Place

New York

?? ??

Editor, "Radio Doings."

Dear Sir:

Question 1.—Would you kindly tell me how far a WD-11 type receiver, as illustrated, will receive? I have an 80-foot aerial sloping from 15 to 45 feet from ground and 20 feet lead in.

2. Should it receive Los Angeles stations regularly?

3. How much extra distance should a crystal set receive with the addition of a dry cell and a potentiometer?

Yours respectfully,

N. S. Truitt, Alameda, Calif.

Answer 1.—It is impossible for anyone to answer this question.

2.—Yes, in winter.

3. No advantage.

June 21, 1924.

"Radio Doings,"

Los Angeles, California.

Gentlemen: I have a Tuska Superdyne. I live in the hills, a long way from a charging station, so that a storage battery is almost out of the question. I want to know if this set will operate on WD-12 tubes, using dry batteries, and if so, how many 1½ volt cells will be required? Also, how many dry cells for four UV201A tubes? Would you advise the use of the UV201A tubes? Am using one UV200 and three UV201A tubes.

Very truly yours,

D. S. MARKS, Forest Ranger,  
Blue, Arizona.

Answer: Advise using C299 or UV199 tubes.

## The Voice From the Plane

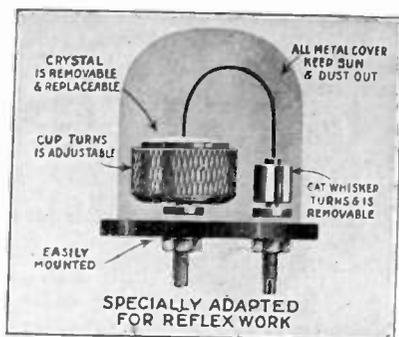
While testing out an airplane radio-phone transmitter at McCook Field, Dayton, recently, the embryo announcer, Mr. Studebaker, caused a commotion in that section of radioland. Tiring of repeating numbers and phrases for the ear of the receiving operator at the Flying Field, he started singing. Suddenly there burst upon the air: "London Bridge is falling down, falling down, falling down, etc."

The phone in the radio laboratory of McCook Field began to ring loud and continuously. To the operator's answer, a feminine voice announced that she had just gotten in touch with an airplane on her radio set. "There's a man up there, who seems to be in distress," she continued, "he keeps calling that he is 'falling down,' and I thought you might want to send up another plane to help him."

It was a joke on Mr. Studebaker, who now sticks to meaningless numbers and words when testing out the airplane transmitter.

AFTER JULY 1ST  
**Western Radio, Inc.**  
 AT  
 1224 WALL ST.  
 Phone ATLantic 9257

# THE LINCOLN DETECTOR



The Lincoln Enclosed Fixed Adjustable Detector is the ONLY Detector of its kind on the market today. We guarantee every Detector and Crystal we sell. Your money back any time within 12 months.

If any other manufacturer can offer you more than this, he certainly must have a wonderful product.

*We will be pleased to have you call and inspect our new premises.*



## LINCOLN RADIO COMPANY

1151 Santee Street  
Faber 0665

—Phones—

Los Angeles, Cal.  
Faber 0666

?? ??

June 12, 1924.

Gentlemen:

Again I am going to take advantage of your "Question" column of "Radio Doings." My friend and I have recently purchased new radio sets, Kennedy type 281, and one person tells us to hook up our B batteries one way, and another person claims it will be better done another way. I am enclosing two sketches, Nos. 1 and 2, and would appreciate your advice as to which is the better. I would also like to know if you think a "C" battery of 4.5 v. would improve my reception any.

Am enclosing stamped envelope in case it should take too much space in "Radio Doings."

Thanking you for past favors and for the above information, I am,

Yours very truly,

IVOR C. BROOKER,  
Glendale, California.

Answer: Hook-up number one is best and only correct way.

June 21, 1924.

Editor of "Radio Doings":

Dear Sir: I have a three-tube Cockaday receiver, and it consists of these things: Aerial is fifty feet in length, and is ten feet in height. The hook-up has three wires, two transformers—All America, three tube amplifying (Type UV501A) two .0005 mf. variable condenser (23 plate), B battery 90 volts, A storage battery. I cannot get any other stations out of Los Angeles. I can get only KHJ, KFI and KFGS. I will appreciate it if you will tell me what is the matter. Yours truly,

JOE RONZONI,

721 N. Grand Ave., Los Angeles.

Answer: Your antenna is too low—  
for distant reception.

June 21, 1924.

"Radio Doings,"

Los Angeles, California.

Gentlemen: I have a Tuska Super-dyne. I live in the hills, a long way from a charging station, so that a storage battery is almost out of the question. I want to know if this set will operate on WD-12 tubes, using dry batteries, and if so, how many 1½ volt cells will be required? Also, how many dry cells for four UV201A tubes? Would you advise the use of the UV201A tubes? Am using one UV200 and three UV201A tubes.

Very truly yours,

D. S. MARKS, Forest Ranger,  
Blue, Arizona.

Answer: Advise using C299 or UV199 tubes.



## DUTHO RECHARGEABLE STORAGE "B" BATTERIES

Here's what they cost you delivered

Super-Dutho  
3500 m a hours

24 v \$9  
45 v \$17  
90 v \$32

S Type Dutho  
750 m a hours

24 v \$5  
45 v \$9  
90 v \$17

### Provide Clear Reception

Have 3500 M. A. Hours capacity. Designed especially for larger sets demanding steady plate current, for loud, clear, undistorted reception. Note low prices delivered. 750 M. A. hours Dutho "B" Batteries are for portable and other sets. New technical features make them fool-proof and insure long life. Shipped dry, with liquid in separate container. Thousands in use.

Shipped anywhere prepaid. Certified Check or money order must accompany order.

Write for booklet on Storage "B" Batteries

**DURKEE-THOMAS Products Co.**

1228 Folsom Street, San Francisco

DEALERS:—Write for Special Dealer Proposition

(703)

# AT LAST!

*A two-tube receiver in knock-down form of Harkness reflex type with the most essential equipment designed especially for it*

## THE KILBOURNE & CLARK REFLEX KIT

It includes especially wound coils of diamond wound "pancake" type, designed for lowest losses, extreme selectivity and good volume;

A K & C Reflex-audio Transformer designed particularly for reflex work with a matched primary winding;

A 3 to 1 ratio highest quality K C audio transformer designed for full volume combined with mellowness and roundness of tone;

Two 23-plate K & C condensers, pigtailed connections, moulded bakelite end plates, "straight curve" rotor plates, mechanically perfect;

### SELECTIVITY

IS THE QUALITY GREATLY TO BE DESIRED BY RADIO FANS IN THE CALIFORNIA CITIES. With this in view the Kilbourne & Clark Mfg. Co. has designed in its laboratories a special low loss diamond wound "pancake" coil suitable for reflex sets of the Harkness type. Takes minimum of room, adds selectivity to any Harkness set, retains volume, and improves quality. Price \$2.50. Attractive proposition to dealers. Address branch office nearest you, giving name of your jobber.

A K & C double standard VT or UV 199 socket;

A bakelite panel, engraved and drilled for mounting all of the equipment, and

All necessary jacks, dials, binding posts, terminal board, brackets, screws, nuts, buss wire; in fact, everything to make the set complete excepting tubes, phones and batteries.

## \$34

### DEALERS

Address one of the K & C branches listed below for discounts. Give jobber's name.

LOS ANGELES  
1103 West 10th St.  
Phone 55-263

SAN FRANCISCO  
591 Mission St.  
Phone Sutter 40

PORTLAND, ORE.  
305 Larrabee St.  
Phone 6156

SEATTLE, WASH.  
101 Spokane St.

*Every item in this kit is manufactured by the Kilbourne & Clark Mfg. Co. and carries their unqualified guarantee of satisfaction.*

## THE KILBOURNE & CLARK MFG. CO.

## Radio and Aviation Aid Mail Delivery

The development of speed in the delivery of the United States Mail is one of the most romantic subjects to be found in history, for it has accepted the accommodations afforded by every means of rapid transportation, from the Pony Express to the airplane and now has taken to radio as an expedient.

For some time the experts of the Postoffice Department have been experimenting with radio as an aid to air-mail transportation, both for communication between stations along the routes and between these stations and planes. Much has been accomplished, but only the intercommunication ground system has been completed.

When the transcontinental air-mail service is officially opened on July 1, however, thirteen of the flying field relay stations along the route, with headquarters at Washington, already equipped with radio telegraph transmission stations, will co-operate. These stations, situated about 250 miles apart on the 3400-mile route, are located as follows: Hempstead, L. I.; Bellefonte, Pa.; Cleveland and Bryan, Ohio; Maywood, near Chicago, Ill.; Iowa City, Iowa; Omaha and North Platte, Neb.; Cheyenne and Rock Spring, Wyo.; Salt Lake City, Utah, and Elko and Reno, Nev. The field at Rawlins, Wyo., is not yet equipped. A leased wire is used from Reno to San Francisco to complete the chain and avoid interference with Pacific Coast radio stations. Operating on a working wave between 3500 and 3800 meters, these stations call each other on the 3998-meter wave, but shut down to listen every fifteen minutes for emergency calls. This chain of radio stations acts as an aerial train dispatching system. It furnishes quick service for planes, transmitting advance weather reports and orders to stations where planes and pilots relieve each other on their cross-country flight. Air mail will be carried across the country in approximately thirty-three hours each way. All plane arrivals and departures are now reported to WWX at Washington, which station can itself communicate directly as far west as Cheyenne under good conditions.

All the air mail radio stations are equipped with six KW arc sets, most of which were supplied by the Shipping Board. On July 1, a twenty-four-hour service at stations between San Francisco and Cheyenne, and Maywood and New York will be maintained, but between Maywood and Cheyenne, where the night flying is done, only a sixteen-hour schedule will be necessary.

The Department has twenty-seven special mail planes ready for service and forty-two pilots, all familiar with the sections of the trans-continental routes over which they will fly. Ten planes a trip will be employed, one to each "jump," the pilots also relieving each other.

### RADIO SALESMAN WANTED

Good opening in live territory for outside man to sell "KENNEDY" equipment.

Apply to RADIO DOINGS, 308 Van Nuys Bldg.

Phone TRinity 6062

### A MESSAGE FROM M.-A.-R.-S.

Why let SUMMER conditions bother you?

You can enjoy your RADIO now the same as in winter season.

Let us show you.

We have Superheterodynes, Neutrodyne, One-Two-Three Tube Reflexes. Complete Sets and Parts.

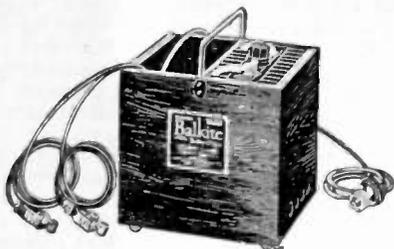
Remember our easy payment plan. No use to wait. DO IT NOW.

### MANUAL ARTS RADIO & ELECTRIC SHOP

4154 S. Vermont Avenue, Los Angeles, California.

Phone VERmont 7836.

Tested and Listed as Standard by Underwriter's Laboratories



## A new battery charger, noiseless and indestructible

*The FanSteel Balkite Battery Charger for Radio "A" (6 volt) Batteries is an entirely new type of rectifier, based on the use of FanSteel Balkite, a new and rare metal developed for this purpose.*

1. It is entirely noiseless.
2. It cannot deteriorate through use or disuse.
3. It has no moving parts.
4. It has nothing to adjust or get out of order.
5. It cannot discharge or short-circuit the battery.
6. It requires no attention other than an occasional filling with distilled water.
7. It will not overcharge.
8. It cannot fail to operate when connected to the battery and line current.
9. It is unaffected by temperature or fluctuations in line current.
10. It is simple, efficient and indestructible except through abuse.
11. Without added attachments the charger may also be used to charge "B" storage batteries.
12. *It can be used while the radio set is in operation.*

**FANSTEEL**  
**Balkite**  
PATENTS  
APPLIED FOR *Battery Charger*

*The FanSteel Balkite Battery Charger will charge the ordinary 6 volt radio or automobile storage battery at 3 amperes, from 110-120 AC, 50-60 cycle current.*

**Price, \$20**

*Distributor*

**CARL A. STONE CO.**

Radio Building: 1113 Wall St.

Los Angeles

## “Trouble Shooting” by Radio Inspectors

Supervisor of Radio Dillon of the Sixth District, whose headquarters are in San Francisco, received so many complaints of interference on waves from 300 to 500 meters, in the neighborhood of Globe and Miami, Ariz., that he made a special trip to unearth the noise which prevented radio reception.

The trouble came from the Cottrell electric precipitating plant operated by a smelter. After considerable investigation he found that by moving the resistance outside the middle wall of the building and inserting an iron core impedance in the line, the radiation was reduced. He then bridged the spark gap with an L C circuit to absorb the energy of the oscillatory current developed. When the changes were made he called Globe and Miami and asked fans to listen-in; both cities reported the interference had disappeared. The supervisor then arranged to have the precipitators operated on the non-interference circuit until additional devices could be secured for all circuits of the smelter. In the evening the inspector was able to pick up Los Angeles and Oakland on a loud speaker, without interference from this source.

En route to San Francisco, a visit to investigate interference reported in Superior, Ariz., was made. The method of absorbing radiated energy at a local smelting plant was changed so as to absorb all radiation by screening the discharger with fine copper mesh and grounding it.

Supervisor Van Nostrand of the Fourth District found that interference from a power line system in Augusta, Ga., was causing considerable trouble among the radio fans there, and after continued scouting and work with a loop receiver, he eliminated the trouble, which was in the form of a particularly loud intermittent buzz. After two days and a night's work it was found that when a certain arc light was swung by the wind its guy wire came into contact with a 2,300-volt circuit, which caused the disturbing hum or buzz. This difficulty was also reported as the cause of similar interference in Hartford, Conn. In both cases inspection of the lighting and power circuits failed to find the difficulty.

## ANNOUNCEMENT!

Our New Location Is

**5512 Franklin Ave.**

(at Western)

**C & G RADIO CO.**

J. W. CLENEY

H. L. GREENE

## SUMMER IS HERE

ULTRFLEX Gives You What You Want.

For Volume and Quality of Tone.

**Set of 3 Radiona ULTRFLEX TRANSFORMERS—\$3.00**

COMPLETE SETS IN STOCK

**BRIDEWELL RADIOS**

3512 SO. MAIN ST.

OPEN EVENINGS

LOS ANGELES, CAL.

## Clarity and Tone Range with Kellogg Transformer.



**T**HE reproduction of the highest tones, as well as those of the lower extreme of the scale, with faithful, pure quality, is essentially the spirit of Kellogg transformer design.

The lover of better music searches for a rendition simulating the original orchestra. The ringing tones of brass, the mellowness of wood, the shrill of wind and the fanfare of reed, all in their individual expression.

The Kellogg transformer accomplishes this to a wonderful degree because of its perfect magnetic properties accomplished with the silicon steel laminations without punched holes.

This feature, distinctly Kellogg, eliminates losses to a greater degree than could be otherwise obtained. A transformer is as good as its absence of losses.

Plainly marked terminals, brass shielding, moulded Bakelite tops, perfect finish, are further quality and design expressions.

Amplify your pleasure with perfect amplifiers.

No. 501—4½ to 1 } Equally efficient. Price \$4.50.  
No. 501—3 to 1 }

*USE—Is the Test*



### KELLOGG SWITCHBOARD & SUPPLY COMPANY

1066 West Adams Street, Chicago

623 San Fernando Bldg.,  
Los Angeles

1054 Mission St.,  
San Francisco, Calif.

## Daily Papers Using Radio to Feel Convention Pulse

The first broadcasting of a national political convention brought radio into some newspaper offices where it had never before penetrated. It is said to have been of value to the managing editors in two ways: First, that it actually beat the press wire reports by about two minutes; and second, it enabled the managing editors and make-up men on duty at home offices to anticipate stories and keep in touch with the actual spirit of the convention, probably better than reporters on the scene busy writing stories.

In Washington, the editor of a leading daily had a radio receiving set on his desk and directed the make-up of his paper while he listened in to the convention, from the actual platform as it were. He could feel the pulse of the sessions. He was able to get the "feel" of the convention. During the balloting, he added up the votes for each candidate as they were announced and kept tab on the votes necessary to win the nomination. He secured a definite line on the spirit of the applause at each nomination speech, as well as outbursts following the casting of the votes by delegations, and judged himself whether or not the cheering and applause were manufactured, inspired or spontaneous. This was a side light, editors who remained at their desks never could secure before and it was valuable, making possible better editing and follow-up stories. Radio brought in an additional story, one correspondent could not write.

It is understood that many newspapers used radio during the Democratic Convention in various ways. In general it is believed the broadcasting of the Cleveland Convention sold radio reporting to numbers of the dailies which heretofore have passed up an opportunity to listen-in during the broadcasting of national events. It not only supplements the wire service, but insures another direct channel for news, especially when bulletins and flashes are due, and aids in anticipating the need for extra editions; speeding up their issuance.

Some radio fans feel that radio has eliminated the need for extra papers, but on the other hand, the radio announcements carry bare facts without interpretation. Radio broadcasts are gone in a moment, whereas the papers are longer lived and carry news and features, follow stories and views of authorities which do not come over the radio. All of which, others argue, make the extra or the next issue of a newspaper all the more interesting and necessary to the radio fan.



# STAR ENGRAVING COMPANY

223 EAST FOURTH ST.      LOS ANGELES

872-969      TELEPHONE      872-969

"Your Story in Picture Leaves Nothing Untold"

## PACIFIC TUBE EXCHANGE

6645 LELAND WAY

HOLLYWOOD, CALIF.

*Only Western Tube Service Station*

8-HOUR SERVICE.

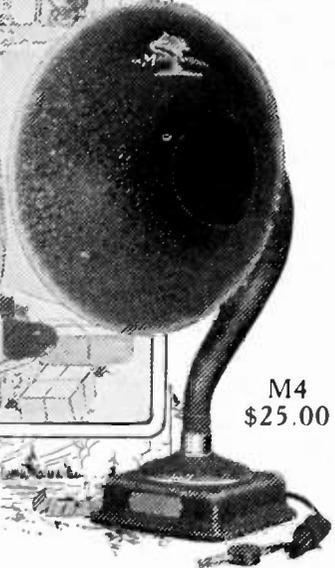
NO EXTRA CHARGE FOR BROKEN GLASS

WD-11, WD-12, C-11, C-12 .....	\$3.00 Each
UV-201, C-301 .....	\$3.00 Each
UV-201-A, C-301-A, UV-199, C-299 .....	\$3.00 Each
DV-1, DV-2 .....	\$3.00 Each
UV-200, C-300 .....	\$2.75 Each

WE BUY BURNT-OUT TUBES

ALL TUBES GUARANTEED AND RETURNED, PARCEL POST, C. O. D.

*Agents for Dey's Radio Service, Chicago, Illinois*



This new Magnavox Reproducer perfectly meets the insistant demand for an instrument of small, convenient size, handsome finish, economical operation, yet producing clear tone throughout the entire musical range.

The low price of Magnavox M4 brings flawless radio reproduction within reach of all.

**THE MAGNAVOX COMPANY, Oakland, Calif.**

New York Office: 350 West 31st Street

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

**MAGNAVOX**  
  
*Radio*

## The "Kelcoil" Circuit

B. KRUGER, M. T. I., M. S. E. (Eng.)

Radio development travels so fast that before one has properly grasped the intricacies of one circuit and got it into something like satisfactory operation, another development takes place that very often puts months of previous work on the scrap heap. However, I philosophically accept this fact as one of the necessary woes of a radio engineer or anything else he chooses to describe himself.

While wrestling with Supers., Neuts., Hark this and that, I kept hearing rumors of the development of a new coil winding with which new records were being made. A most peculiar thing, however, was the fact that none of my informants had any definite information about it.

In the course of my general business correspondence with certain Eastern concerns, I recently received a description of a new coil that by a Sherlock Holmes system of deduction led me to believe that I was tracking the main rumor to its lair. I immediately wrote to the manufacturers, ordering a few of the coils—I already had the circuit—and had a set constructed "toot sweet." It was just thrown together with a lot of junk parts and looked like nothing in particular beside the aristocratic Supers. and Neuts. Two tubes, a peculiarly wound coil in the shape of a varlo-coupler, a 23-plate variable condenser, an A. F. transformer, two rheostats, a fixed condenser and grid leak was all there was to it.

We tuned it in first in the office at 2:30 p. m. on KHJ, and it nearly rattled the diaphragm off the loud speaker. We took off the antenna and I could hear the music on the floor below. Without antenna and ground, the volume became comfortable and I let it go at that. The next two evenings we had the set out at two different locations in Hollywood and tried some distance. Without the least difficulty we tuned in through locals on the loud speaker KLX, KPO, KGW, and several amateur stations in Arizona and Nebraska. KGO came in as loud as locals on the ground wire alone. We then hooked up our pet "Super-Harkadyne" for purposes of comparison and by golly! that two-tube bundle of junk had it skinned. After the amount of time and money I invested in the S. H. D. I did not know whether I felt pleased or sorry.

I am now going to build a three-tube set, maybe adding P.P. Amplification, with which I feel sure I can do some considerable traveling even at this time of the year.

**FILAMENT (Trade **R C** Mark) TRANSFORMER**

(Registered)

Replace your "A" Battery with a **FILAMENT TRANSFORMER** in your One, Two and Three Tube Set, using crystal detector. Price \$5.00 post paid.

**R C** Two and Three Tube Reflex Sets, price dependent on quality desired.  
Repairing and Wiring.

**RAY CAMPBELL**

1217 Dwiggins Street, near N. Huntington Drive, Two Blocks from Sierra Vista Station  
LOS ANGELES, CALIF.

AFTER JULY 1ST

**Western Radio, Inc.**

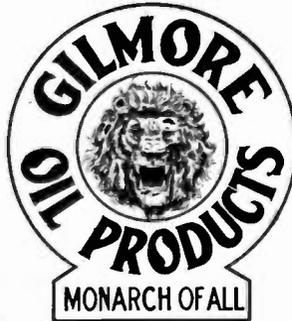
AT

1224 WALL ST.

Phone ATLantic 9257

**Y**ou are courteously  
reminded by the  
**Sign of the Lion's  
Head**

*that*



***Have 235 Distributors***

*(Service Stations)*



An increase of fifty since the first of the year.  
This indicates an increasing approval of our product.

**GILMORE OIL COMPANY**

2333 East 28th Street

Los Angeles, Cal.



VAndike 7382



# Independent Press Room

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**Press Work and Binding**  
FOR THE TRADE

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BURT HARWICK  
Manager



540 So. San Pedro Street

LOS ANGELES

## New Zealand Fights Foreign Radio Expansion

An effort to block the sale of American made radio apparatus and to assume popular American radio trade names for local makes of apparatus is reported from New Zealand. Actually the block is against all radio goods not manufactured by the Amalgamated Wireless Company, Ltd., of Australasia. This company is said to be a branch of the Marconi Company of England; it operates as a branch by virtue of the annual payment to the Marconi Company of a £60,000 annual fee. The Amalgamated was formed in Australia with a million shares of stock, of which 500,001 shares are controlled by the Australian Commonwealth, the government paying half the royalty to the Marconi Company of England.

An agreement is understood to exist between the Marconi Company of England and to Radio Corporation of America, by virtue of which the Amalgamated, upon payment of the above mentioned royalties to the Marconi Company, is permitted to use circuits, designs and patents held by the R. C. A.

It is now reported, however, that the Amalgamated is showing a tendency to assume trade names which have been made popular by the advertising and quality of production of American firms. The term "Radiophone," for example, is being used. In some cases local distributors have discovered this use of the trade names in time to avoid sales under the misapprehension that the goods were genuine American products.

If the Amalgamated Company registered the names of popular American goods not registered in New Zealand as their own, they could demand a royalty on every instrument sold there under the name. Such an attempt has been made by the Amalgamated people, reports from authentic and reliable sources state, in connection with the use of the trade name "Radiophone," understood to be the property of the DeForest Company in the United States.

A group of New Zealanders is said to have undertaken the formation of a broadcasting company with four large stations, using mostly American apparatus. But at a meeting held in connection with the organization of the company, it is stated that local representatives of the Amalgamated Company informed the prospective incorporators that they would not be permitted to operate unless a license were secured from the Amalgamated Company and the New Zealand Government. Communications with the head office of the Amalgamated Company in Australia, however, indicated that the local branch in New Zealand had no authority to make such a statement. Rights of the Amalgamated Company in connection with transmission apparatus are questioned by the proposed broadcasters. It has been the practice of the Amalgamated to demand subscription fees from every broadcaster in New Zealand, although most of them have been refused, it is understood, and no action by the Amalgamated has followed.

The projectors of the broadcasting service intend to force the issue as a test case, it is understood, providing they obtain assistance from the American manufacturers covering the patents they desire to operate under, since the Amalgamated Company has not proven its rights. Representatives of both the Amalgamated Company and the local government are hoping to bring about a block against makes of apparatus other than their own, although they have not yet succeeded, advices said.



### "Death Valley" Permatect Price \$1.00

The "Death Valley" PERMATECT is constructed expressly for Reflex Circuits. Recommended by Radio Engineers. Will stand up under any High Plate Voltage. This Product is also an ideal detector for a crystal set.

### "Death Valley" Crystal Price 30 Cents

The "Death Valley" Crystal is a natural mineral with every point sensitive. The Volume and Clarity has not been equaled. Will stand up under any conditions, as it cannot be damaged. Sold only in sealed packages.

Unless You have a "DEATH VALLEY" PRODUCT You Have Not Developed the Maximum Efficiency of Your Set.

At Your Dealer's or Mailed Upon Receipt of M. O.

Pacific Coast Distributor, V. P. LANCE, San Fernando, Calif.

# Printing



Modern Methods

Service to meet all requirements—large or small

PHONE FOR REPRESENTATIVE

B Roadway  
3913



B Roadway  
3914

**CITIZEN PRINT SHOP**

—INCORPORATED—

540 South San Pedro Street

## Trade Notes

The vexed and complicated question of allowances on old, used and "try-out" radio sets to customers when the latter request credit or an allowance for the set that they already have towards the purchase of a new one has been occupying the time of the Radio retail trade, and a special committee was appointed by the Association to investigate, report, and submit recommendations. Many managers of retail radio stores declare that they cannot see their way to make any allowance whatever, claiming that the expense of doing business and giving service prohibits them from doing so. However, it is considered probable that the practice will become customary in the future, as it already is in the automobile, piano and phonograph business, and that a schedule of allowances for the guidance of dealers must be drawn up. The most difficult problem for the retailer is to know how to explain to a customer that in spite of the fact that he may have bought a—say \$100—set but three months ago, he cannot expect the dealer—even if he purchased the set from him—to allow him the full value as an allowance towards the purchase of a more expensive set which may run to four or five hundred dollars. The customer has to be shown that his returned set will have to be sold as second-hand and at a reduction, and that on this resale of a second-hand reduced price radio set the dealer is entitled to a fair margin of profit.

The committee on "trade-ins" appointed by the Association consisted of Messrs. Westphal, Aylesworth and Schifferman. Their recommendations were embraced under the following schedule:

Allowance on radio set	1 month old—less 15% today's list price.
Allowance on radio set	2 months old—less 30% today's list price.
Allowance on radio set	3 months old—less 45% today's list price.
Allowance on radio set	4 months old—less 50% today's list price.
Allowance on radio set	5 months old—less 55% today's list price.
Allowance on radio set	6 months old—less 60% today's list price.
Allowance on radio set	7 months old—less 65% today's list price.
Allowance on radio set	8 months old—less 70% today's list price.
Allowance on radio set	9 months old—less 75% today's list price.
Allowance on radio set	10 months old—less 80% today's list price.

After ten months the committee states that it believes that the allowance—if given at all—should be 80% or more off today's list price.

Burglars broke into Richardson's, Inc., 727 West Seventh Street, Los Angeles, and not content with pilfering the safe and stealing a large sum of money, carried off a Super Heterodyne Radiola set No. 109243, which had been supplied in a special tan leather case. If anyone offers to sell a Super Heterodyne Radiola Set at a bargain price, the prospective purchaser should investigate the number closely. A substantial reward will doubtless be given to anyone who can furnish information which will lead to the arrest and conviction of the thieves.

E. F. Margolis of the Lincoln Radio Company left on Sunday for a six weeks' trip across the continent. Mr. Margolis will stop off at all the principal cities en route, with three objects in view, namely: First, in the interests of the radio jobbers of Southern California, with a view to giving them a full and comprehensive report of conditions throughout the country. Secondly, to introduce the Lincoln Protector to Middle West and Eastern radio jobbers and dealers. Thirdly, to meet jobbers and dealers as a special representative of the Lincoln Radio Manufacturing Company.

The Workrite Manufacturing Co., of Cleveland, Ohio, now have in operation their Pacific coast factory located at 239 So. Los Angeles St., Los Angeles, where they will manufacture for the Pacific coast dealers five tube Workrite Neutrodyne Receiving sets, they say "Western made for Western trade" and will put out nothing but the highest quality. Through their national advertising campaign they are announcing three new models: Workrite Aristocrat Console; Workrite Radio King (with loud speaker built in); Workrite Air-Master (with-out built-in loud speaker). The Patterson Radio Corporation, 239 So. Los Angeles St., Los Angeles, have been appointed exclusive distributors for the Pacific Coast.

## Out of the Air

Don't take a reading of your B batteries with an ammeter. Use a voltmeter. One test with an ammeter will draw as much current from the battery as you would in a month of regular service.

We extend our congratulations to Mr. N. E. Brown, President of the Southern California Radio Association, on the birth of a son. Mr. Brown tells us that the first thing his young hopeful did upon arrival was to grab for the head phones and listen in for long distance.

The National Radio Exposition will be held at the Biltmore, Los Angeles, the week of January 25, 1925. Only two expositions are put on each year by the American Radio Exposition Company, one in New York, which is held in October next, and the other on the Pacific Coast.

"Uncle John" of KHJ is taking a well-earned vacation. He is keeping a secret of the place where he is going, but we understand it will be "way off," where he can be "far away" from the microphone, but will have his portable set with him.

Claire Forbes Crane, who all listeners-in know from the excellent programs she has put on over KHJ, has opened a studio with Melba French Barr, the well-known soprano, at 431 Music Arts Building, Los Angeles.

The shortage of power which prevails, owing to the failure of sufficient rains, and which is receiving the closest attention of all the trade associations and owners of factories. If economy is used—and every individual can set an example in his own home and in his business—all will be well. But if care is not shown, a serious shortage will develop, involving the closing down of factories and plants, and that will mean loss and unemployment and a slump in business.

The Retail Dry Goods Association of Los Angeles, which includes all the department stores, has put the following rules into effect:

All electric display signs—out.

All outside signs—out.

All roof signs—out.

Window lights—cut down 50 per cent.

Showcase lights—cut down 50 per cent.

Interior lights—cut down 25-50 per cent.

Department managers and supervisors instructed to enforce economy in light and power on every possible occasion.

**DO YOUR SHARE—ECONOMIZE.**

Mr. Leslie Logan, of the Lee Electric and Manufacturing Company of San Francisco, is on a visit to Southern California, expanding their business in this territory.

Hall Berringer, sales manager of Kierulff & Ravenscroft of Los Angeles, has accepted the position of manager of the Northern California branch of Kierulff & Ravenscroft. He assures his friends of Southern California that he is sorry to leave them, and assures his friends of Northern California that he is glad to be back with them again. Kierulff & Ravenscroft's northern branch will be located at 654 Howard Street, San Francisco, California.

A message from President Coolidge to the Governor of New York was handled in an unusual manner last week on the occasion of the 300th anniversary of Albany. The message from the President was sent to the Naval Communications Service by messenger from the White House at 9:35 a. m. last Tuesday, relayed by radio to the airship Shenandoah over New York City, and held by Commander Lansdowne until the airship was over Albany, at 10:30 a. m., when it was repeated through a loud speaker, and reached the ears of the Governor in person.

# MR. DEALER:



Model R-6, \$28.50

The following jobbers can supply you with "Dictogrand Loud Speaker," Dictograph "Phono Units" and Dictograph "Aristocrat" Headsets:

- Kierulff & Ravenscroft
- Radio Supply Co.
- Wholesale Radio Electric Co.
- H. Earle Wright Co.
- Fitzgerald Music Co.
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