



Here and There RADIO On the Air



RADIO COMPASS IS LATEST THING IN NAVIGATION

Passengers no longer have to fear the danger of being lost at sea. By the simple turning of the loop antenna of the new improved R C A radio compass the captain of a passenger ship which may have lost its bearing in the heaviest fog can set the ship's course straight again. Radio impulses from shore stations up and down the Coast are received by the direction finder. When the impulse is sent out by the station, the operator on the ship simply turns the loop slowly around until the signals from the shore become the faintest. Then he knows that the loop points in a direction which is at right angles to the radio waves. As the operator knows the location of the station, he can determine his position quickly.

This new equipment makes use of the main features of the radiola super heterodyne. The receiver has the standard six tube catancomb which is used in the radiola and the tuning controls are of the same type. The instrument will give both bilateral and unilateral bearings. The receiver covers a wave length range of 500 to 1200 miles and equivalent strong signals are received throughout the entire wave length.

The loop which is used consists primarily of a number of turns enclosed in insulating tubes joined together to form a square. This container, which is watertight, is mounted on one corner with its plane vertical and with its shaft extending down into the operating room. The leads, of which there are three, are brought thru the hollow shaft and the current is taken off by three collector rings. The loop is revolved by a hand wheel and the position is determined by a pointer connecting the shaft to a mechanism called the compensator. This compensator may be calibrated after the instrument is installed so that the errors introduced on account of the metal objects of the ship are automatically corrected. The apparatus is so arranged that the readings of the direction finder are using a standard binnacle card for which may be substituted a gyro-compass on ships equipped with gyro compasses. Provision has been made for mounting the loops on a tripod and raising it six feet above the deck in any case where surrounding objects make this advisable. That part of the loop mechanism extending into the room where the outfit is installed is entirely supported from the deck above. A novel feature has been introduced by the use of a vertical hand-wheel, with which all navigators are familiar, thereby making possible the support of all the loop mechanism within the room by a single tube.

International Radio Engineers Meet January 18

For the first time in the history of radio, scientists and engineers who make radio telegraphy and radio broadcasting a reality will meet in an International Meeting and Convention in New York City, January 18 and 19. Notices have been sent by the Institute of Radio Engineers, under whose auspices the meetings are held, to its membership both here and abroad. Included in its membership roll are such illustrious names as Guglielmo Marconi, Edwin H. Armstrong, Louis A. Hazeltine, E. F. W. Alexanderson, George O. Squire, Lee de Forest, Thomas A. Edison, Michael Pupin, Irving Langmuir, I. G. Pender, Ellery Stone, David Sarnoff and John V. L. Hogan, and many of these will contribute to the program of the meetings, at which, it is predicted, some of the most difficult problems facing the radio will be solved. There have been numerous meetings of radio sales experts and of the manufacturing, communication and broadcasting interests of the art but this is the first recorded meeting of the engineering and scientific minds which have made the inventions responsible for the very existence of the broadcasting art.

Expert Explains How to Eliminate Radio Disturbance

When there is a scratchy noise coming from the loud speaker of sets, it is quite easy to determine just what is causing this trouble. The average service man does a process of elimination, starting first if the noise is due to the cause. This is the

way he tests to find out if it is due to electrical interference in the immediate locality.

He first disconnects the antenna and if the noise stops or diminishes in volume he immediately knows that this interference is from the outside and not in the receiver. Another good test for this is to throw the three dials out of resonance, setting one at 0, the next one at 50, and the third one at 100. If the noise still persists, then he looks for trouble in the installation.

He very readily determines if the batteries are noisy by taking a pair of phones, placing one tip on the minus, the other on the plus, getting a sharp click, then no noise at all. If there is a rushing and crackling sound this battery is faulty and should be replaced.

Very often the trouble in noisy sets can be traced to dirty prongs on the tubes, as well as poor contact with the springs in the sockets. In quite a few cases it has been found that the wire in the loud speaker cord is frayed, causing a scratchy sound in the horn. Try reversing the tips in the plug. Very often reversing these will improve the volume 100 per cent.

Radio Program

Sunday, December 20.
 KPO, 428.3 meters. Hale Brothers and Chronicle—Usual features, 9:45 a. m. undenominational church service, Dr. H. H. Bell; 5 p. m., organ recital; 6:34 to 8:30 p. m., Palace orchestra; 8:30 Seeger orchestra.
 KGO, 361 meters. General Electric, Oakland—11 a. m., church services, Rev. James L. Gordon, First Congregational church San Francisco; 3:30 p. m., KGO Little Symphony Orchestra; 7:45 p. m., First Congregational church services, Rev. James L. Gordon.
 KNX, 337 meters. Express, Hollywood—10 a. m., Presbyterian church services, Rev. Stewart P. MacLennan; 2 p. m., city musical program; 7 p. m., Presbyterian church services; 8 p. m., Ambassador orchestra; 9 p. m., Beverly Hills program.
 KHJ, 405.2 meters. Times, Los

ational church; 10:30 a. m., organ recital and Methodist church services; 4 p. m., Musicals; 6:30 p. m., Arcade orchestra; 7 p. m., Methodist church services; 8 p. m., musical program.
 KFI, 467 meters. Earle C. Anthony, Los Angeles—10:30 a. m., Los Angeles church federation services; 11 a. m., Temple Baptist church; 4 p. m., Vesper services, federation musicians; 6:45 p. m., Father Richard Sun Spot weather forecast; 7 p. m., Aeolian organ recital; 8 p. m., Classic hour, Marchetti Quartet; 9 p. m., program; 10 p. m., Packard orchestra.

KFOA, 454.3 meters. Rhodes store, Seattle—Silent.
Monday, December 21.
 KPO, 428.3 meters. Hale Brothers and Chronicle, San Francisco—Usual features; Noon, scripture reading; 1 p. m., Seeger orchestra; 2:30 p. m., varied musical program; 5:30 p. m., children's hour; 8:15 p. m., stocks; 6:40 p. m., States orchestra; 7 p. m., Seeger orchestra; 8 p. m., organ recital; 8:45 p. m., talk "What Is Physical Endurance"; 9 p. m., studio program; 10 p. m., States orchestra.
 KGO, 361 meters. General Electric, Oakland—Usual features 11:30 a. m., luncheon program; 12:30 p. m., weather; 1:30 p. m., stocks; 2 p. m., musical program; 5:30 p. m., Aunt Bertie's stories and KGO Kiddies Klub; 6 p. m., Ginner concert; 7 p. m., news, weather, stock, markets; 8 p. m., educational program, including health talk, book chat, mental troubles and musical review.
 KNX, 337 meters. Express, Hollywood—Usual features; noon, West Coast theaters; 4 p. m., Household Hints; 7 p. m., Mirth Contest; 7:30 p. m., program; 9 to 5 p. m., program; 10 p. m., feature program; 11 p. m., Ambassador orchestra.
 KHJ, 405.2 meters. Times, Los Angeles—Usual features; noon, Arcade orchestra; 12:30 p. m., special program.
 KFI, 467 meters. Earle C. Anthony, Los Angeles—10:45 a. m., Home Service talk; 1:50 p. m., program; 6 to 6:45 p. m., radio features and special programs; 7 p. m.,

and the poor has resulted in wide interest throughout United States and promises to culminate in a much wider activity than originally hoped for.

FAMOUS AUTOGRAPHS

Autographed photographs of President Coolidge, Secretary Hoover, William G. McAdoo, Ernestine Schumann-Heink, Marcel Journet, Blanche Sweet and Marshall Neilan are prized possessions of KFI, as are original radio cartoons of Rube Goldberg and John Held, Jr. All of these famous people, with the exceptions of Goldberg and Held have broadcast from KFI.

RADIO CHARITY

The suggestion of KFI that discarded or superseded receiving sets be given to charitable institutions

BALDWIN VISIONS HIS SUPER RADIO

Will Baldwin takes the prize for radio optimism. He prognosticates as follows: "Some day it's all going to be fixed up so that when the fire alarm rings we shan't have to get up out of bed and go. We'll just turn on the radio and hear all about it, even the crackle." Beat this if you can.

For Better Reception

De Forest Radio Sets
 Are the Perfect Union of Art and Science—The Product of the Brain of the Leader in Radio Development.



Model F-5—\$95

De Forest Tubes
 For Tone, Long Life, Uniformity and Freedom from Tube Noises De Forest Audions are Unrivaled. No other Tube can equal their performance.



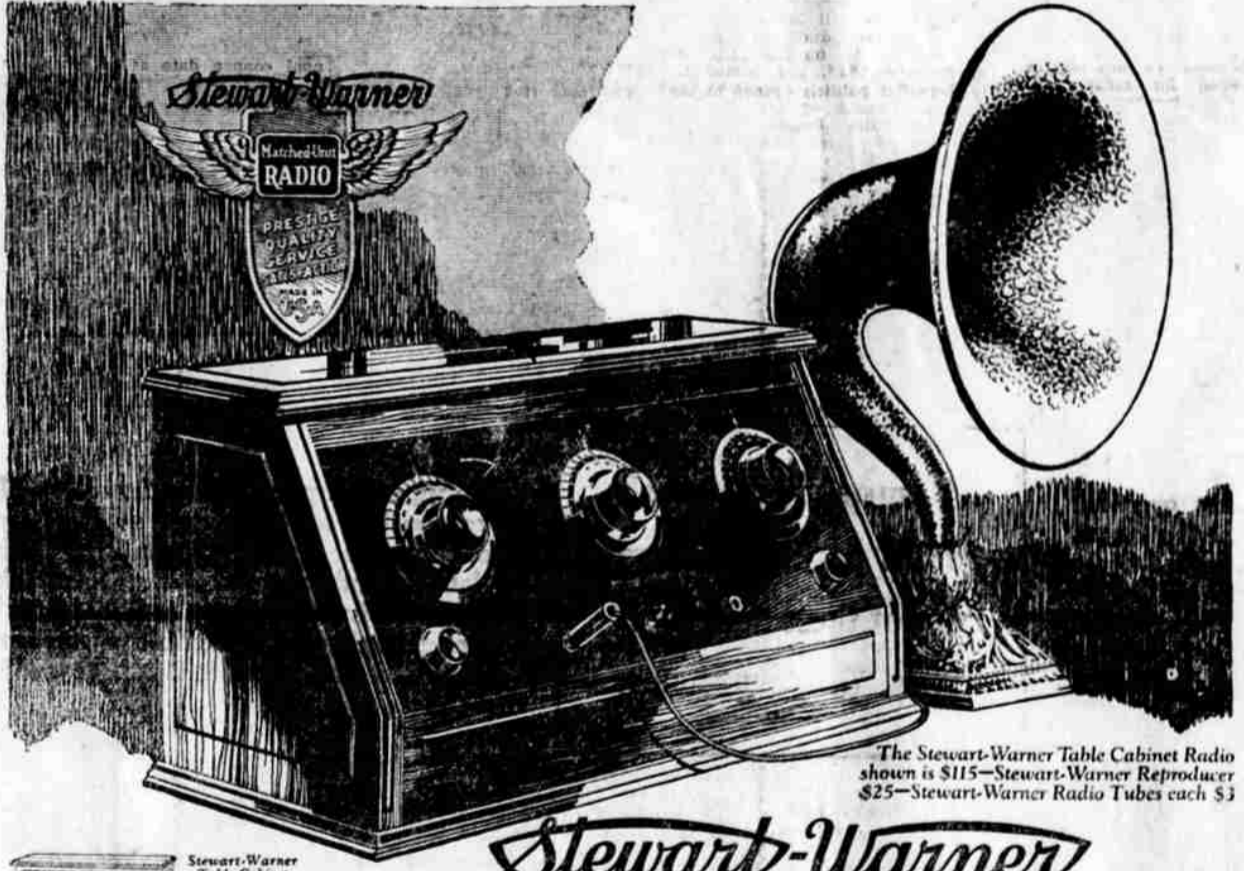
Uhlig's Electric Store
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Shepherd's Extensive Display



Just One of Thirty-Five
 A traveling salesman lately remarked in the Shepherd Music Store: "You have the most comprehensive display of numerous standard Radio Sets that I have ever found in any store. No wonder you are selling by far, from what I hear, the most Radio in Klamath."

Let Me Be Your Radio Santa Claus
EARL SHEPHERD CO.,
 Radio Sets, Batteries, Tubes
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Stewart-Warner Matched-Unit Radio

The Stewart-Warner Table Cabinet Radio shown is \$115—Stewart-Warner Reproducer \$25—Stewart-Warner Radio Tubes each \$3

- Stewart-Warner Table Cabinet Radio Model 300 Price \$65
 - Stewart-Warner Highboy Radio—Model 320—with battery compartment and built-in Reproducer Price \$450
 - Stewart-Warner Console Radio—Model 315—with battery compartment and built-in Reproducer Price \$285
 - Stewart-Warner Console Table—Model 410—with battery compartment and built-in Reproducer Price \$65
- Other Models at Other Prices

THE real joys of Radio come to those who own the best. And the experienced fan knows that the "best" in Radio now means the Stewart-Warner. Every unit in Stewart-Warner Radio is not only perfect in itself, but also accurately matched for perfect working unison with every other unit.

The Matched-Unit idea—a Stewart-Warner achievement—makes this Radio do the things you have always wanted a Radio to do.

Let us show you the wonderful Matched-Unit Radio. We will relieve you of all technical details and give you, through our service, complete radio satisfaction!

Here's a Big Value

For Christmas Radio Buyers

Radiola III-A
 \$35.00
 Less Accessories



Big Results At a Small Price
 Distance, selectivity, clear tone, imagine a 4 tube set at \$35.00. And not just a radio, but a Radiola, an R. C. A. product, with the quality assurance that the name always brings.

Get a Radiola III A now, and tune in on everything.
 Come in soon—supply limited.

Here's Another Good One
Radiola III \$15.00
 Less Accessories Clear Tone, Distance

Think of it: A 2 tube Radiola at \$15.00. Back of its quality and performance is R. C. A. engineering. A real Radiola.

Follow the sports—play by play. Gets the returns with this wonderful "personal" set.

Baldwin Hardware Co.
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