

Enjoy the Radio Programs This Winter



TONE IN YOUR RADIO SET VITAL FACTOR

Number of Things Enter into Question of Getting Good Tone on Radio

Edward H. Rogers of the Chas. K. Dennison Radio Headquarters of Salem is a great believer in improving the tones on the radio. He calls attention to several very important items in regard to the radio tones, which will be of interest to radio fans. Mr. Rogers says:

"The tone of a radio receiver depends upon a number of things, all of which are important. Good tubes, audio transformers, speaker and the proper 'A', 'B' and 'C' voltage and equipment.

"The number of tubes used in a set has not so much to do with the tone as has the 'B' and 'C' voltage and the type of tube used. 501A types do not as a rule need any 'C' battery to improve tone but if 'B' batteries are used, it will help some to conserve this energy. In this case a 4 1/2 volt battery is used the 'C' battery and 90 volts of 'B' battery.

"When a power tube is used such as a 112 or 171 the 'C' voltage is stronger going as high as 40 volts sometimes. Ordinarily with the 112 tube, 9 volts is used, with 135 to 150 volts of 'B' battery.

"With the 171 power tube, as high as 40 volts of 'C' battery are used from 150 to 200 volts of 'B' battery current.

"The speaker termed best today is of the 'cone' type or the 'cone-drum' speaker. These two cover more of the audible range of notes than did the old horn type and tend to make more of a musical instrument of your machine than just a mere radio set. They bring out the low drum beats and the sibilant notes, also high-pitched notes of the violin.

"Do not think by this that you can take the average set of two or three years ago and put on a new speaker and get modern results. As the impedance of your audio transformer and the speaker must be nearly the same and the old type of transformers are not built for high voltage such as is used in sets of two years out and other complications arise, but in some cases this can be done with very satisfactory results."

FINE MODEL ADDED TO BREMER-TULLY

Three Makes of Radio Handed by Salem Radio Sales Company

Three makes of radios are kept in stock and sold by the Salem Radio Sales company, with offices at the corner of 31st and Center streets. They are the Bremer-Tully, the Infra-Dyne, and the Crossley.

Messrs. Hatch and Jones divide the duties of serving the radio public and maintain a fast and efficient trouble service.

One of the finest models recently added to the Bremer-Tully line is the all electric with a 110 power tube, giving twice the power of the 171 tube, working from a voltage of 450. It thus gives the radio user twice the volume without distortion.

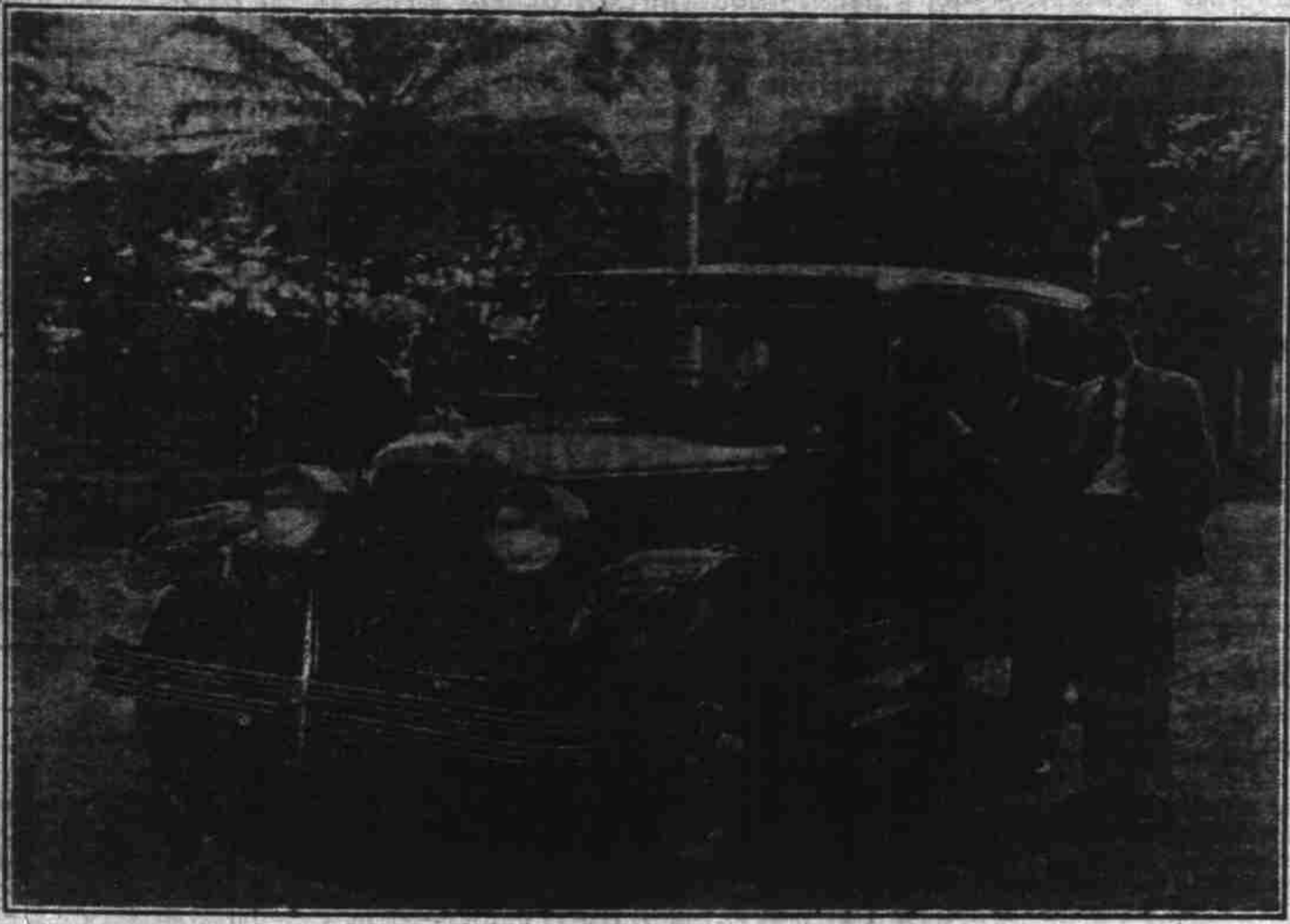
The Bremer-Tully people have been in the radio field for more than five years, ever since commercial broadcasting began.

The value of these years of experience has been built into the design and construction of every essential unit used in Counter-phase receivers.

The ten-tube Infra-Dyne set, manufactured by an Oakland, California, firm is achieving great popularity in Salem. Fifteen of these were sold here last winter and testimonials from users indicate complete satisfaction. It is a new set, the company having been in the field less than two years.

The Infra-Dyne concerns is also the inventor of an adapter which may be installed in a few minutes on any five or six tube set and which doubles the selectivity, the receiving range, runs from an eliminator, and requires no extra batteries.

OREGON DEBATERS LAUD NASH SEDAN



Benoit McCroskey, Avery Thompson and W. E. Hempstead, Jr., debaters of the Oregon University who were granted the use of a Nash sedan while they were in Honolulu.—Star Bulletin photo.

"We appreciate Honolulu and the beauties of Hawaii all the more for having seen them from the window of a Nash Sedan."

Signed: Benoit McCroskey Avery Thompson W. E. Hempstead Jr. Such was the stamp of approval put upon the Nash advanced sedan, lent to the Oregon debate team by The von Hamm-Young Co., Ltd.

These three boys, each a student at the University of Oregon at Eugene, are setting out on a pioneering project, unique in the annals of debating history. They propose to spend the next eight months in traversing the world, debating English speaking teams, and addressing audiences in various cities of Asia, India, Africa, and Europe. Stops in Japan, China, India, Egypt, France and England are included in their itinerary. In fact they are "talking their way" around the world.

Credit for the inception of the project is given to W. E. Hempstead, Jr., a member of the squad, who started formulating plans over two years ago. Invitations to debate, since that time, have been accepted from universities and colleges of international reputation, in many foreign countries. So plentiful have these invitations been that the team has been forced to cancel many, due to the limit of time which the journey must keep within.

Coming back to Honolulu, which incidentally is the team's first stop from home, it seems that the members of the squad have been particularly delighted with the beautiful charm of the island Paradise. They visited the University of Hawaii and were greatly impressed.

GOOD RADIO GROUND IMPORTANT FACTOR

Many Ways in Which to Make Good Ground and Get Better Results

A good radio ground is fully as important as a good aerial. A good ground will not only increase signal strength a great deal but will make the set much more selective and in addition will give clearer signals with less noise.

When speaking of a good ground, we refer to one that has a low electrical resistance. There are many ways in which to make a good ground. Probably the most commonly used is the cold water pipe. This makes a good ground under certain conditions. The ground wire should be of copper and not smaller than No. 14, B. & S. gauge. It should be as short and direct as possible and should connect to the pipe as near the place where it enters the building as possible and should be fastened to the pipe with a good ground clamp.

Another very good ground can be made by burying a copper or galvanized iron sheet in the ground in a good moist spot. The sheet should be several feet square and should have the ground wire soldered to it and should be buried several feet deep to insure sufficient moisture during the summer months.

The United States is the largest purchaser of diamonds among all countries in the world, having invested \$105,000,000 through London alone since the war, according to an answered question in Liberty.

VENTILATION HELPS RADIO BROADCASTS

Widely Known Engineer Declares Controlled Air Proves Great Aid

Forward strides in the science of controlled ventilation has greatly aided radio broadcasting in the United States and raised the standard of entertainment by making conditions more comfortable for the entertainers, Fred R. Still of New York declared Sunday evening, November 26, in a radio talk from Station WRNY, Hotel Roosevelt, New York.

Speaking on "Ventilation—The Science of Controlled Air", Mr. Still said that the fan and ventilating industry has solved the problem of changing the air in broadcasting rooms which must be "sound-proof" to be efficient and that modern stations completely change the air every three minutes.

"Special ventilating fans exhaust vitiated air from the broadcasting room and pump in a fresh supply without affecting or weakening its sound arrangement," Mr. Still said. "Often the fresh air is washed or filtered before it is brought into the room by the fans."

"An important function of these fans in the radio industry is to exhaust from the electric plating rooms, the poisonous lead oxide vapors and fumes which usually gather in dangerous proportions. Several of the big companies have installed giant air washers to remove acid fumes from the air which usually eat into the generators which charge the batteries and destroy the sets."

"When the American mother sends her kiddies to school now she does so with a greater assurance that they will not fall victim to respiratory and other diseases resulting from poor air conditions which formerly obtained from loose, haphazard methods of ventilation.

"The fan industry through its research and development has helped to achieve one of the wonders of all times by furnishing ventilation for the Holland Vehicular tunnel between New York and New Jersey which was opened to the public this month. Proper and adequate ventilating equipment will rid each of the twin tubes of the tunnel of the carbon monoxide gas exhausted from the motors of approximately 2000 automobiles per hour, which otherwise would be fatal to every occupant."

Mr. Still, who represented the National Association of Fan Manufacturers is president of the American Power Boat Association, a vice-president of the American Blower Company and formerly president of the American Society of Heating and Ventilating Engineers. The talk was one of a series by outstanding industrial leaders given under the auspices of the Industrial Digest

WIRELESS FANS IN ENGLAND GREATLY INCREASED NOW

London AP—The increasing popularity of broadcasting in Britain is evidenced by official records, which show that the number of licenses issued by the government to listeners-in has quadrupled in the past four years.

The total number of license holders on December 31, 1923 was 595,496. On September 30th of this year this total had increased to 2,333,631, which does not include 9,150 licenses granted to blind listeners free of charge.

Month by month figures are still rising after five years of broadcasting. This refutes the suggestion made by experts to the effect that saturation point had already been reached. This question is a matter of much speculation, but the prevailing opinion now is that saturation point is about four millions.

"The average annual loss of life in the United States from lightning stroke is about five per million of population, according to an answered question in Liberty.

NUMBERING CHANNEL MEETS WITH FAVOR

Belief Expressed That Radio Industry Should Make Nomenclature Simple

NEW YORK.—(AP)—Orestes H. Caldwell, of the federal radio commission, believes that the proposal of Ralph H. Langley to number broadcast channels as houses or streets are numbered would be beneficial to the public if the present channel locations and dimensions were known to be permanent.

"But who can say that we may not soon be successfully spacing stations at seven and one-half kilocycles or five kilocycles or three kilocycles? In that case we should have to go back to fractional numbers," declared Mr. Caldwell.

Mr. Langley, chairman of a committee of the National Electric Manufacturers Association, for consideration of the matter, submitted to Mr. Caldwell arguments in support of his number scheme. Among other things he sets forth that the term "wave

length" is confusing to many taking it to mean the distance between transmitter and receiver. He says the word kilocycle is difficult to comprehend, that some receiving sets have wave length dials, some have frequency dials and some have zero to 100 dials, and that because of the complex numbers, newspapers have made many mistakes in printing.

He suggests simple numbering of channels running from 1 to 96, and declares the public would soon learn the numbers of their favorite stations.

"I agree that the radio industry should make the nomenclature as simple as possible for the public. But whether the radio commission could properly issue licenses to broadcasters except in terms of fundamental units, I very much doubt," said Mr. Caldwell.

"That, however, need not prevent the radio industry and trade from taking up Mr. Langley's suggestion if it seems desirable, marking instruction books to correspond and having the newspapers join forces in designating the channels by numbers."

He said he had not discussed the matter with other members of the commission and that this was merely his personal opinion and not a comment.

LISTEN IN

- SUNDAY MORNING**
12:00 (m.)-9:00 KXL (298). Sleep
8:50-9:15 KGW (492). Comic strip reading
9:00-10:00 KXL Morning musical
10:00-11:00 KXL Courtesy program
10:00-11:00 KWBS (200). Musical program
11:00-12:00 KGW. St. Stephens Pro-Cathedral services
11:00-12:00 KXL First Methodist church services
- SUNDAY AFTERNOON**
12:00-1:00 KXJJ (329). Pipe organ
12:30-1:30 KXL Courtesy program
1:30-2:00 KXJJ Studio program
1:00-2:00 KTBB Semi-classical music
1:30-2:00 KXL Pianist
2:00-3:00 KABL Varied program
2:00-3:00 KXL Varied program
3:00-3:30 KTBB Symphony orchestra
3:00-4:00 KGW Concert orchestra
3:00-4:00 KOIN Concert
4:00-4:30 KXJJ Organ music
4:30-5:00 KGW Concert
5:00-5:30 KTBB Varied program
5:00-5:30 KGW Moser Art orchestra
5:30-6:00 KXL Organ music
SUNDAY NIGHT
8:00-8:30 KXL (298). Twilight music
8:00-8:30 KTBB (283). Salon orchestra
8:00-7:00 KOIN (415). Organ concert
8:00-7:00 KXJJ (240). Concert trio
8:00-7:00 KGW (492). NBC program
8:00-8:00 KXL (230). Dinner concert
8:00-8:00 KOIN Minnie Pals' orchestra
7:30-8:00 KGW Pianists
7:30-8:00 KXL Mt. Tabor Presbyterian church services
7:30-8:00 KTBB First Presbyterian church service
8:00-9:00 KOIN First Church of Christ, Scientist church service
8:00-8:00 KXL "A Trip to India."
8:00-8:00 KGW Courtesy program
8:00-8:00 KXJJ Studio program
8:00-10:00 KOIN Musical comedy hour
8:00-10:00 KGW Great Moments of History
8:00-10:00 KXJJ Bible Student's program
10:00-11:00 KGW Orchestra
NBC-5:30, Crosey Moscow Art orchestra; 6:30, Standard Oil company; 9, Great Moments of History
KMO-Tacoma (254). 7-9, church service
KFO-San Francisco (423). 6, orchestra
4:00-7:30, NBC Symphony hour; 7:30, organ recital; 8:30-10, concert orchestra
KPOA-Seattle (447). 5-30, NBC orchestra; 6:30 NBC Symphony hour
KPOB-Long Beach (245). 6-6:15, orchestra; 7, novelty & melody boys; 8, Kiwanis frolic
KOA-Denver (276). 6, concert; 6:45, church service
KTAB-Oakland (280). 7, vesper service
KNX-Los Angeles (937). 6:30, church service; 7, church service; 8, concert orchestra; 9, violin and piano
KOO-Oakland (284). 5:30, NBC orchestra; 7:30 church service; 9, NBC
KPI-Los Angeles (483). 5:30, NBC; 6:30, NBC; 7:30, sunset weather forecast; 8, organ recital; 9, NBC; 10, orchestra
KOMO-Seattle (208). 5:30, NBC; 10, orchestra; 6:30, NBC symphony hour; 7:30, Bible students; 8, church service; 9, NBC
- Designation of The Dalles-Columbia highway between Terrebonne and Bend as one of the state's arterial, or through routes, was announced in Bend recently by C. W. Wanser, state highway division engineer.



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