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THE HORN SPEAKER

THE NEWPAPER FOR THE HOBBYIST OF VINTAGE ELECTRONICS AND SOUND

RADIO PERSONALITIES

I

PAUL GODLEY

By A. HENRY

IT IS doubtful whether any one human being in radio circles holds the interest of Americans more completely than Paul Godley. Much of this interest is the direct result of the transatlantic amateur transmitting tests completed a short time ago, in which Mr. Godley played the leading rôle, but he has also taken part in other remarkable radio activities.

Before considering these recent events it is interesting to ponder for a moment or two upon the work this man has done for radio in the past.

Paul Forman Godley was born September 25, 1889, at Garden City, Kansas. His interest in radio began about the time he entered Defiance College in Ohio. His studies there lasted for five years. During his summer vacations, Mr. Godley devoted himself to telegraph work with commercial companies and railroads in various capacities, from operator to train dispatcher.

Being interested in communication, it was quite natural for him to become enthusiastic about radio and he studied all the available literature on radio communication published at that time. In 1908 a commercial wireless station was built in Chicago, to which Mr. Godley was assigned by the operating company. Once in a position actually to handle commercial radio equipment, Mr. Godley made every effort to become proficient in its installation and maintenance, as well as its actual operation.

The United Wireless Telegraph Company opened a commercial station at Grand Rapids, Michigan, in the summer of 1909 and Mr. Godley was put in charge.

Later in the same year, an agreement was made with Dodges Institute of Telegraphy, Valparaiso, Indiana, to inaugurate a course in wireless telegraphy over which Mr. Godley had jurisdiction.

In 1911, Mr. Godley was placed in charge of a course in wireless telegraphy at the Collegiate Institute, Port Arthur, Texas, and in 1912 he took up the duties of Wire Chief for the Postal Telegraph Company at their main New York office.

The year 1913 found Mr. Godley on the "Amazon-to-the-Andes" radio service for the Brazilian Government, during which time his experiences were as varied as they were instructive. In 1914 Mr. Godley returned to the United States, and began a study of research at his home, Leonia, New Jersey, where he devel-

oped the short wave regenerative receiver now so familiar to American radio enthusiasts.

After a winter of experimentation with receiving outfits, Mr. Godley opened a transmitting station (2 ZE) and many exceptional distance records were made during the time this station was in operation. More than anything else this station became widely known in amateur radio circles for its consistency in daylight work. Communication between Albany, Baltimore, and Philadelphia via Leonia was a regular occurrence.

In 1915 and '16 Mr. Godley was called upon by numerous radio clubs and engineering societies to discuss radio problems, and one of the first appreciations of the great possibilities of the vacuum tube and its application to amateur radio was contained in his paper "Applications of the Audion," read before the Radio Club of America in New York City. Most authorities on radio credit Mr. Godley with having taken the Armstrong Regenerative Circuit, for a time considered impracticable for short wave work, and arranged it to function satisfactorily for the amateur.

Toward the end of 1915, Mr. Godley became a member of the Adams-Morgan Company, Upper Montclair, New Jersey, and he is largely responsible for the production of "Paragon Radio Apparatus."

During the war, Mr. Godley served as Designing Engineer at the Marconi Wireless Telegraph Company of America's factory, Aldeen, New Jersey, having charge of receiver design, and the apparatus developed by him during this period for army and navy use has been commented upon very favorably. One particular type of receiving equipment, developed for Signal Corps use, was the only American built apparatus mentioned in the report of the Chief Signal Officer to the Secretary of War.

TRANS—OCEANIC RADIO TESTS

SO MUCH has been said regarding the successful attempt of American amateurs to record their signals in Europe that it is not necessary to go into detail. In brief, Mr. Godley was chosen by the American Radio Relay League to undertake this very important mission and equipped with what he considered suitable receiving apparatus, he left this country and put up a temporary receiving station in Scotland.

Mr. Godley's first attempts to hear American signals were greeted by the English press as more or less problematical and one particular London paper went so far as to ridicule his effort. However, twenty-six American amateur stations were heard during the time Mr. Godley stayed in Scotland; his operations were checked by representatives of radio amateurs in Great Britain as well as executives of large radio companies there.

THE WASHINGTON CONFERENCE

WITH the very marked stimulation in radio communication brought about, no doubt, by the recent development of radio broadcasting, our Government appreciates the fact that existing radio communication laws are not adequate to cope with existing conditions. For this reason, Secretary Hoover called upon a number of radio men to convene in Washington and made suggestions regarding new laws with special attention to the amateur and the radio enthusiasts. When asked for his opinion regarding the conference and its likely outcome, Mr. Godley replied:—

"Brought about by the rapid growth of radio broadcasting, I feel that the conference recently held in Washington developed as fine a working basis as could have been wished by any interest in a very short time. Particularly fortunate were we in having a man of such calibre as Herbert C. Hoover, to steer the course of the commission. On the first day of the conference it had been generally agreed by all concerned that, firstly, for the proper continued growth of the art and industry proper, governmental control was absolutely essential: Secondly—that the order of importance of the various classes of service was (*a*) insurance of safety of life at sea; (*b*) radio broadcasting of desirable information and entertainment; (*c*) a continuance of amateur activities to the fullest possible extent within certain suitable fixed bands and point to point broadcasting to provide communications over stretches where existing systems are impossible."

A very significant fact brought out at the conference was that material changes in wave lengths are likely to be put in effect in order to eliminate some of the broadcasting problems which now exist. This legislation is highly desirable for at least two very good reasons. Firstly, broadcasting programmes are at present seriously interfered with by "ship to shore" commercial telegraph work even at points remote from the seacoast during certain seasons of the year and with the least selective types of receivers. These programmes are also interfered with to some extent by indiscriminate and improperly regulated amateur transmission. Secondly, broadcasting stations on the shorter wave lengths designed to cover a radius of 150 miles very frequently cover a radius of 1,500 miles and occasionally their range is even greater than that.

This phenomenon which occurs at night during the winter, is known as "fading," and frequently results in interference and confusion.

It is quite noticeable that fading is comparatively absent on wave lengths of the order of 1,000 or 1,500 meters.

The use of short wave lengths, then, greatly diminishes this reliability of the broadcasting schedules and if broadcasting is to enjoy the very remarkable future which opens up before it, it must be stabilized in every possible manner.

To make broadcasting other than a temporary fad, it must be made dependable and upon its dependability and permanence in the American home rests the future prosperity of those industries built upon it which are now growing so rapidly.

RADIO BROADCASTING HERE TO STAY

REGARDING this very important phase of radio Mr. Godley made the following statement. "There is little doubt in my mind that radio broadcasting is here to stay, and that before many years it will be utilized in as many as five million American homes, for it may very well come to play a part in our lives equalled only by that of the daily, weekly, and monthly periodical.

PAUL GODLEY

Like the moving picture industry, it will need to grow from a crude infancy into something greater and grander than is at present possible—its applications may even surpass in their scope the wonders of the motion picture as we know it to-day.

"But this development is very apt to be much more rapid, for, in a great sense, each broadcast listener will be his own operator, critic, director, and even producer. There will be a great variety to select from, and each of the purveyors of this service will be on the continual lookout for suggestions and criticism.

"Radio broadcasting can never quite become a case of 'see our picture or stay at home' and, besides, the Department of Commerce promises to follow radio broadcasting very closely in order to make certain that proper and popular programmes are provided. This is as it should be. One might even allow himself to imagine that some time in the future the popularity of a political party in office may hinge entirely upon the quality of broadcasting service."

RADIO BROADCAST, May 1922

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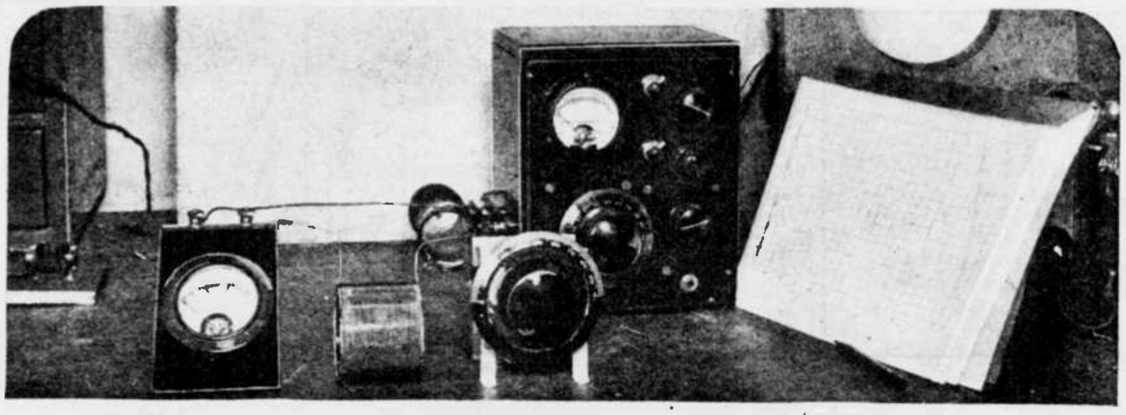
~RADIO NEWS HOME LABORATORY EXPERIMENTS~



Laboratory apparatus used to obtain the data presented here

Tuned Circuits and How They Function

WHAT happens when we tune a receiver? We turn the dial, one station fades out, another comes in. Why? By this simple question we are brought immediately into direct contact with some of the most fundamental problems in radio. This apparently elementary question is one of the most difficult to explain.

When a radio receiver is tuned the operator demonstrates—although he probably doesn't realize it—one of the most fundamental things in radio—the characteristics of "tuned circuits." We have all seen diagrams of "tuned circuits" such as that indicated in Fig. 1. Here L is the coil, which consists of some 50 to 100 turns of wire wound on a tube, and C is the variable condenser, which consists of a number of metal plates, some stationary and others movable, the two groups of plates being insulated from each other. One of the ends of the wire from the coil is connected to the movable plates, and the other end is connected to the stationary plates. See Fig. 2.

Now we all know (if we don't we can find out by opening up the cabinet of a receiver and watching what happens as we turn the dial) that when we turn the dial of an ordinary receiver we cause the movable condenser plates to turn and mesh more or less with the stationary plates Evidently this operation of tuning a set has something to do with the position of these plates. We can also determine the fact, by referring to the list of call letters on page 332 of the October issue of RADIO NEWS, that the movable condenser plates are most completely meshed with the stationary plates when we are tuned to some station broadcasting on the longer wavelengths around 500 meters. When we are listening to low wavelength stations around 200 meters we will note that the condenser plates are almost completely out of mesh with each other.

Let us take a coil and a condenser and connect them in series with a meter which will indicate whether there is any current flowing in the circuit. Now suppose we lived but a short distance from some broadcasting station, WEAF for example, whose transmitter is located on Long Island, N. Y. Now we set up the coil, the condenser and the meter, and as we slowly turn the condenser dial we watch the meter. If we start at the position where the movable plates are all out of mesh we will find that it will be necessary to rotate the dial until the movable plates are about two-thirds in mesh before anything happens. Then we will note that the meter will rather suddenly begin to indicate some current, and that the current will very rapidly increase as the dial is slowly turned. Then the needle of the meter will, for a moment, reach a high point and stop increasing. As we continue to turn the dial the needle will rapidly begin to return to zero. If we were to plot the movements of the meter needle on a piece of cross-section paper, we would get a curve like that of Fig. 3. This is known as a "resonance curve," and the point at which the needle indicated a maximum current is the point of exact resonance. Now when we tune a single control set having several tuned stages, the dial causes several condensers to turn, so that we get the combined effects of several of these "tuned circuits."

In tuning a set we cannot ordinarily measure the current as we did in the preceding experiment, for the currents are too small. But in place of the current we can listen to the loud speaker volume and note that it rises, reaches a maximum and then decreases exactly as did the current. And whenever we tune to a station we will note the same things—a rapid rise, a definite peak and then a rapid fall. Now we have, perhaps, some idea of what happens when we tune the set, and we can picture in our mind the rising and falling currents in the various tuned circuits. But why do these circuits behave in this manner?

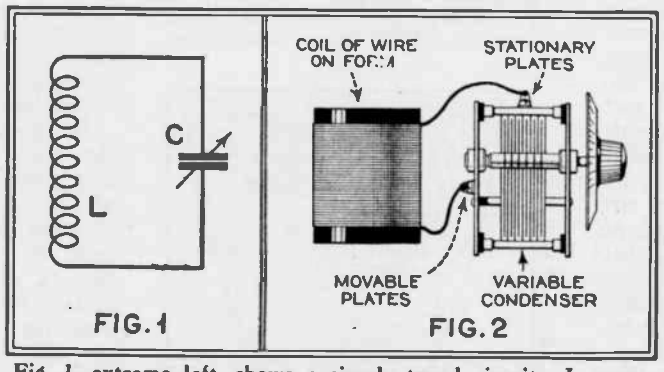


Fig. 1, extreme left, shows a simple tuned circuit. L represents the coil and C the tuning condenser. Fig. 2, to its right, shows in picture form how the parts for such a circuit are arranged

Here we have to get at the meaning of some new terms. We are all familiar with the word "impede." Rust in a water pipe impedes the flow of water through it—and in electrical circuits there are certain things that impede the flow of currents. Just as we could plot a curve showing the impedance offered to the flow of water due to various amounts of rust in a pipe, so with electrical

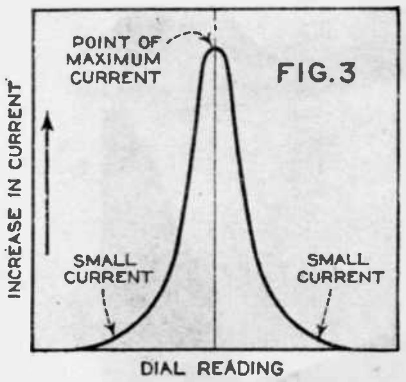


Fig. 3—As a circuit is tuned to a certain frequency the current in the circuit gradually increases to a maximum value and then decreases similarly. A curve of this action would look like that shown to the left

Fig. 4—Capacitive reactance decreases with increase in frequency, while inductive reactance increases. The two curves to the right illustrate this action

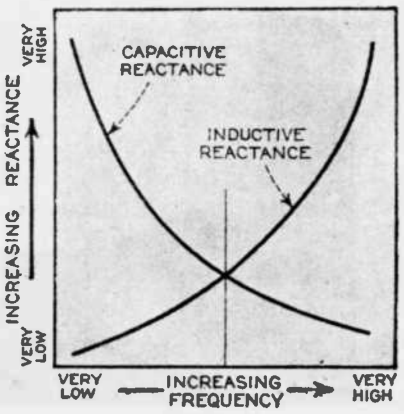


FIG. 4

circuits we can plot curves showing the effect on the flow of current of various types of electrical impedances, as the following will show.

In electrical circuits the three essential types of impedance are resistance, capacitive reactance and inductive reactance—capacitive reactance is the impedance to the flow of current offered by a condenser, and inductive reactance is the impedance to the flow of current offered by a coil of wire. The latter two types of impedance are not constant but depend on the frequency or wavelength of the current—the impedance due to resistance is fairly constant. At very low frequencies the capacity reactance of a condenser is very large and the inductive reactance of a coil is very small. At very high frequencies the capacity reactance is very small and the inductive reactance very large. That is:

Frequency	Inductive Reactance	Capacitive Reactance	Resistance
Very low	Small	Large	Essentially
Very high	Large	Small	constant

The actual value of either the inductive or capacitive reactance is also a function of the size of the condenser or coil—large condensers have *less* reactance than small condensers, large coils have *more* reactance than small coils. We can therefore vary the impedance either by changing the frequency or by changing the electrical size of either the condenser or the coil.

If the variation with frequency of the reactance of a coil and of a condenser is plotted in the form of curves we get the results given in Fig. 4. Now the laws of electrical circuits are such that the impeding effects of a coil and a condenser have opposite effects on a circuit, so that when they are both in the same circuit they tend to nullify each other. The resulting impedance of a circuit to the flow of current is found by subtracting the inductive reactance from the capacitive reactance. This has been done in Fig. 5. Here we note that at one point, "A," the impedance reaches a minimum value, and that at frequencies either higher or lower the impedance rapidly increases. We also can observe the very interesting fact that if we look at this curve upside down it has a form somewhat similar to that given in Fig. 3 where we plotted the current in the tuned circuit. Just as the greatest amount of water will flow through the pipe that offers the least impedance to its flow, so the point of maximum current in a circuit must correspond to the point of minimum impedance.

This is the point that tells us what happens when we tune a receiver. What we are doing is adjusting the capacity to a value such that, at the frequency of the station we desire to receive, the capacitive reactance is exactly equal to the inductive reactance of the coil, so that they cancel each other, the maximum amount of current flows and the signals are loudest.

For those who know algebra, all these facts can be explained by equations. The capacitive reactance is:

$$X_C = \frac{1}{2\pi fC}$$

and the inductive reactance is

$$X_L = 2\pi fL$$

When a circuit is in tune these two effects are opposite and equal. That is

$$X_C = X_L$$

$$\frac{1}{2\pi fC} = 2\pi fL$$

and transposing and solving for "f" we get

$$f = \frac{1}{2\pi\sqrt{LC}}$$

Since all the factors except C are fixed, in tuning we actually determine the capacity C which satisfies this equation, so that the circuit will be resonant to the frequency "f" of the station we want to receive.

Fig. 5—By subtracting the inductive reactance from the capacitive reactance, we find the resulting impedance of a tuned circuit. At "A" minimum impedance is offered by the circuit to the received signal, whereas at points either side of "A" the impedance increases

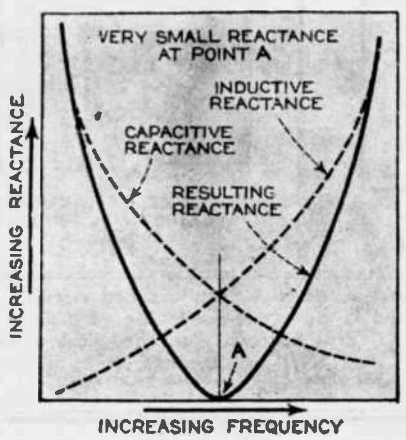


FIG. 5

The height of the curve of Fig. 3 depends largely on the resistance of the tuned circuit and practically, the maximum current at resonance in a simple tuned circuit is inversely proportional to the resistance of the coil, for the condenser usually has negligible resistance. Therefore *twice* the coil resistance reduces the current at resonance to *half*; if the coil resistance is reduced by a factor of four the current is four times greater. From the standpoint of getting large currents at resonance it is important to use low resistance coils.

It should be realized, however, that the resistance of the circuit has a marked effect on the current only *at* or *near* the resonant point. At all other points the reactance rather than the resistance determines the current. At a point where the reactance is say of the value of 100 ohms the current will be practically the same whether the coil has a resistance of one ohm or ten ohms. But in most cases we are anxious to get large amounts of current at resonance relative to the currents that flow with the circuit out of resonance and it is for this reason that the coil resistance is important.

Mailbox

Dear Jim,
I've just purchased a radio with "unusual" tubes. I've never seen any like them. Perhap a reader(s) could let me know about them. Could be a collector's item for tube collectors. Here is a sketch.

George Friedrich
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Note.... You probably have a McCullough 401, first AC tube patented by McCullough.

Dear sir,
I have in my possession a very rare TV tube. The DeForest tube that made television possible in 1938.
Can you tell me its value.

Althea Pratt
9 High Street
Beacon NY 12508

Note... No, we do not price items for collectors. Thank you for writing.

TECHNICAL MILESTONES

ONE of the greatest and most significant triumphs in the history of radio occurred on the morning of January 21st when the address of King George V of England, opening the Five-Power Naval Conference in London, was carried to the world at large over a globe-girdling network of air waves and wires—a crowning achievement, majestic in scope and epochal in the linking together of nations in a manner hitherto impossible.

In this erasure of space strange tricks were played with man-made time. Tokio tuned in at 8 p. m., while New Yorkers arose at 6 a. m. to listen simultaneously to words spoken in London at 11 a. m. The mariner approaching the international date line might have heard King George's well modulated accents on the evening before they were uttered, and six minutes later listened to the conclusion of the speech on the evening after. But the scientific feat of the greatest of all international broadcasts, to date, inspiring as it is, is merged in the hope which it suggests of carrying the spirit of friendship across the boundaries of land and sea, from nation to nation, by bringing whole populations in audible presence at the seat of peaceful council.

Pickup of the proceedings at the conference was arranged by the British Broadcasting Corporation, which also put them on the air from the G5SW station. The National Broadcasting Company picked up the signals at its Riverhead, Long Island receiving station, whence they were transmited by telephone wire to the control-room in New York City. From this point they were distributed to fifty-nine stations throughout the country.

The Columbia Broadcasting System received its program through the shortwave Transatlantic telephone station of the British Post Office, at Rugby, England. It was picked up in the United States by the low-wave station at Netcong, N. J., otherwise used for the trans-oceanic telephone circuit by the American Telephone and Telegraph Company. Telephone wires brought the messages to the New York studios where they were distributed to the network stations.

Undoubtedly this event brought together the greatest audience ever assembled to listen to the same program, a fact alone that makes January 21st red-letter day in the history of radio.

The first commercial home television receiver for tuning in talking motion pictures. Much developmental work remains to be done, but public demonstrations of this apparatus indicate that much may be expected of it in the future

Home Radio Talkies

Home radio talkies, or synchronized sight and sound broadcasting, left the laboratory in commercial form only a short time ago and for the first time have been demonstrated before the public.

That the exhibition was not so much a technical advance as it was a practical exhibition, was emphasized by D. E. Replogle of the Jenkins Television Corporation.

The radio-talkie program for this demonstration was broadcast simultaneously through two stations; W2XCR which, transmitted from sound films, and W2XCD which broadcast the silent films run through the television pick-up apparatus.

RADIO NEWS FOR APRIL, 1930

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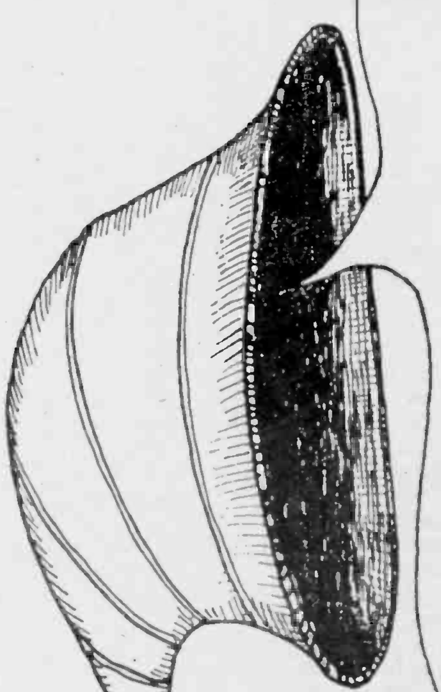

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HALLICRAFTERS S-20R $85.00 -- NATIONAL ONE-TEN $90.00 -- WESTERN COIL AND ELECTRIC RADIODYNE WC-17 BATTERY SET $75.00 -- NATIONAL SW-3 $175 (INCLUDING MATCHING HOME BUILT POWER SUPPLY AND 7 SETS OF COILS; PERFORMANCE IS SURPRISING) ----- SEND 2 STAMP S.A.S.E. FOR COMPLETE AND UP TO DATE PHOTO LIST. RON BOUCHER, 376 CILLEY ROAD, MANCHESTER, NH 03103, (603) 669-1698.
****
FOR SALE: OLD RADIOS AND TEST EQUIPMENT. SEND LONG S.A.S.E. FOR PIX PRICE LIST. JOHN MARTIN, 817 COOK AVENUE, BILLINGS, MT 59101 (406) 252-4287.
****
PHILCO MOD 16 CATHEDRAL $175.00, PHILCO MOD. 39-7 $40.00, ZENITH 1937 MOD GS222 $60.00, ZENITH MOD 8G05Y TRANS-OCEANIC $40.00, WANT PHILCO 620B (AC ONLY). ALL RADIOS SOLD AS IS, ALL IN WORKING AND GOOD CONDITION, SHIPPING EXTRA. WAYNE DIMMLER, 13 MIDTOWN ROAD, CARLE PLACE, NY 11514 (516) 747-1325. AFTER 6 P.M.
****
FOR SALE PHILCO CONSOLE with short wave and 78 RPM changer, walnut cabinet. Mint condition, Model 46-1226. Make offer. Bud Schwab, 20413 Roca Chico Drive, Malibu, CA 90265. (213) 455-2893.
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JOIN THE CALIFORNIA HISTORICAL RADIO SOCIETY. Journal published six times a year, free ads for members, swap meets four times a year. Write: CHRS, P. O. Box 1147, Mtn. View, CA 94042-1147.
****
FOR SALE: WESTINGHOUSE RC, RADIOLA V (AR-885), KENNEDY 281, and others. R.S. Renne, 1020 Idlewild Drive, Dixon, IL 61021.
****
1. GREBE SYNCROPHASE MU-1, mint condition inside and out, working, with tubes $160.00 - 2. Crosley 51, excellent, original. working with tubes $75.00 -- 3. Crosley 52, excellent, original, working, with tubes $90.00 -- 4. Crosley Trirdyn, excellent, all original, with tubes $75.00 -- 5. Crosley IIIA, all original, mint. no tubes $85.00 -- 6. Hearldyne TRF, 1925, very good, with tubes $60.00 -- 7. Philco 89, excellent, plays weak, $80.00 8. Ingram Mantel Clock Radio. mint condition, radio and clock work $180.00 --- SPEAKERS- 9. RCA UZ-1325 horn, mint and working, $60.00 -- 10 Atlas horn, mint and working, $65.00 -- 11. Muzette horn, mint and working $65.00 12. Tower Meistersinger horn, base repainted but looks good, plays weak $50.00 ---- Jerry Finamore, Rd#2 Box 623, New Castle, PA 16101 Phone (412) 656-0338.
****
FOR SALES ESTATE RADIOS, BOOKS, MAGAZINES, VERY REASONABLE. AK CELLARETTE, EDISON CONSOLES, RADIOLA TAPESTRY SPEAKER $35.00, COIN OPERATED TRADIO RADIO $30.00 -- EMPIRE RADIO IN SHAPE OF HOUSE $35.00 -- ALL PLUS UPS. LIST LONG SASE. ROBERT AND HELEN CORUM, 125 LOCUST AVENUE, WALLINGTON, NJ 07057 (201) 773-0918.
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1931 BRUNSWICK RADIO - phono - changer. radio needs work $250.00 -- W.E. 41A and 42A -- AMP- includes 2 racks, small horn driver $400.00 -- 30's RECORDING LATHE- good for display $35.00. -- .1931 BAIRD (U.S.) MECHANICAL TV. Has instructions. accessories, 2/3 of radio chassis $300.00. RCA early 30's MICROPHONE- from the studios. Prefer trade. WALLY WOOD, BOX 8153 LA CRESCENTA, CA 91214 (818(246-1225.

****

THE WD-11 substitute, type 864 (VT-24), new, only $5.50 each. 10/ $50.00 while supply lasts. Shipped UPS prepaid Continental U.S. Insurance extra. Leonard D'Airo, 383 Pittsburgh Avenue, Massapequa Park, NY 11762.

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FOR SALE; USED AND UNUSED RADIO TUBES as used in the 30's to 50's radios, also radio parts, send SASE for price list. Elmer Nelson, 11 S. Church Street, Princeton, IL 61356.

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FOR SALE: OLD RADIOS AND TEST EQUIPMENT. Send long S.A.S.E. for PIX price list. John Martin, 817 Cook Avenue, Billings, MT 59101 (406) 252--4287.

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PHILCO MODEL 90 restored, cathedral. Best offer over $200.00. Ronald Hill, 386 Roosevelt Avenue, Lyndhurst, NJ 07071.

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WANTED

WANTED: 1 TUBE SETS, CRYSTAL SETS, GREBE CR EQUIPMENT. RAY GARNER, ROUTE 1, BOX 320, BIG SANDY, TN 38221.

ELECTRO- MEDICAL AND QUACK DEVICES, BOOKS WANTED. INTERESTEDD IN FLOOR MODELS ANDS IN DEVICES WITH MULTIPLE KNOBS RESEMBLING RADIOS BUT WHICH ARE NOT RADIOS. I AM ALREADY SATURATED WITH VIOLET RAY DEVICES, SIMPLE 4D BATTERIES. PLEASE DESCRIBE AND PRICE. OLE LINDAN, 1404 DORSH ROAD, CLEVELAND, OH 44121

DETROLA PEEWEE MODEL 219 c. 1939 and MAJESTIC Model 5AK711 c. 1947. Both are small AC/DC plastic sets. J.W.F. Puett, Box 28572, Dallas, TX 75228.

PHOTOCOPIES OF ANY LITERATURE ON THE PHILHARMONIC RADIO CORPORATION FROM 1936 TO 1943 AND SERVICE DATA FOR FISHER RADIO RECEIVERS FROM 1946 TO 1949. ALSO, TECHNICAL DATA FOR FISHER MODELS R2 AND TV5. J.W.F. PUETT, BOX 28572, DALLAS, TX 75228.

WANTED- SCHEMATIC FOR DeFOREST Interpanel pg. 83 V.R., Tube cover for Radiola 26, Philco model 18 chassis, Case for Federal 110, front panel for Grebe MU-1, Lee Williams, 22026 3 PL West, Bothell, WA 98021.

RESTORING ST. JAMES EIGHT TUBE BATTERY SUPER. IF YOU HAVE ONE PLEASE CONTACT ME. NEED MOSTLY INFO, SOME PARTS. ALSO WANT BROWNING DRAKE PARTS. BILL JELINEK, 128 N. STEVENS, RHINELANDER, WI 54501.

WANTED: WWI SETS, IP501A, ANYTHING WIRELESS SPECIALTY, MURDOCK SPARK ITEMS, COLLINS 4A, 30W, 32, 45A TRANSMITTER, PARTS FOR GREBE CR-5, 9, FEDERAL DX-58, CLAPP EASTHAM R7, HR, H7. RICHARD GROSHONG, 6604 KENT DRIVE NE, CEDAR RAPIDS, IA 52402, (319) 377-3144.

AK 60 KIEL table radio, AK 558 cath., grandfather clock radio, Emerson Mickey Mouse, Philco 51 cath., Philco Jr., Jackson Bell 54 Peter Pan. Jeff Vance, 1819 West Rovey, Phoenix, AZ 85015. Include phone number, price and condition.

WANTED: ONE LATE 1920'S STYLE 0-2000 and 0-12 ohms 2 watt wirewound potentiometer. Shaft 1/4" by 1". All makes off KINO lamps and scanning discs. Would welcome vintage TV collectors interests in any construction projects. D'Arcy Brownrigg, Chelsea, Quebec, J0X 1N0, Canada.

WANTED: NON-CHROME SCOTT RADIOS PRIOR TO 1931. ALSO WILCOX LAB, EMEROLA AND OTHER RADIOS FROM MICHIGAN. JIM CLARK, 1006 PENDLETON, LANSING, MI 48917. (517) 323-9595.

EMERSON RADIO COLLECTOR seeks 10" wooden cased early Emerson TV as well as unusual table radios and radio phonographs. Ray Miller, Box 1711, Oceanside, CA 92054.

WANTED: MANUAL OR CIRCUIT DIAGRAM; Zerox ok for Supreme Diagnometer AAA-1. John Martin, 817 Cook Avenue, Billings, MT 59101, (406) 252-4287.

WANTED: RADIOLA 33 LID, Radiola 28 catacomb, RCA Service nots 1923- 1928, AK 47 powr supply. Jim Conaway, 709 Halstead Road, Wilmington, DE 19803 (302) 478-5815.

WANTED: WE ARE LOOKING FOR OLD ELECTRON TUBES. Our buying prices are: 2A3 $6.00 -- 45/ 145/ 245/ 345 $10.00 -- 50/ 250/ 350 $12.00 -- VT-52 $6.00 -- VT-62 $4.00 -- 202 $10.00 -- 203A $10.00 -- 210 $10.00 -- 211 $10.00 -- 224/ 227 $4.00 -- 242C $15.00 -- 82 $4.00 -- 83 $4.00 -- 280 $8.00 -- 281 $8.00 -- 845 $20.00 -- 5691/ 5692/ 5693 $6.00. For all the tubes that are originally boxed, especially antique shaped tubes that are RCA boxed, we will pay extra charge of a $1.00 or more. About used tubes please contact us. ---- Western Electric brands: VT-1 $15.00 -- VT2/ 205B/ D/ E $12.00 -- 101D/ F / 102A/ D/ F/ G (only antique glass 101 and 102) $12.00 -- 211A/ E $20.00 -- 212D/ E $30.00 -- 242A/ C $20.00 -- 252A $20.00 -- 262A/ B $6.00 -- 274A/ B $12.00 -- 275A $20.00 -- 284D $25.00 -- 300A/B $50.00 -- 301A $8.00 -- 339A $8.00 -- 350B $15.00 ----- P and C Electronics, 4-12-14 Yushima Bunkyoku, Tokyo, Japan 113

"WANTED- ZENITH console radio with push buttons and organ tuning buttons, made in late 30's. (213) 455-2893. Bud Schwab, 20413 Roca Chica Drive, Malibu, CA 90265.

WANTED: Collector wants ADAMS-MORGAN and/ or PARAGON equipment, detectors, and literature. Randy Renne, 1020 Idlewild Drive, Dixon, IL 61021.

WANTED: OLD RCA, CUNNINGHAM, WESTERN ELECTRIC, TUBES, AMPS, SPEAKERS, MCINTOSH, MARANTZ, AMPS. (713) 728-4343, MAURY CORB, 11122 ATWELL, HOUSTON, TX 77096.

CABINET FOR KENNEDY XV. 4 prong analyzer cable for Supreme or Readrite. 2 good WD-11 tubes. John Martin, 817 Cook Avenue, Billings, MT 59101.

DIAL PLATE FOR G.E. RADIO M51A, approximately 4 5/3 X 5/8 top-18 meg to 5.5 meg -- bottom- 1800 KC to 500 KC. Don't wash even with water- numbers came right off. Art Corbus, 5704 11th Avenue, N.W., Seattle, WA 98107.

WANTED: C.R.L. PARAGON and other early CHICAGO RADIO LABORATORY equipment. Randy Renne, 1020 Idlewild Drive, Dixon, IL 61021.

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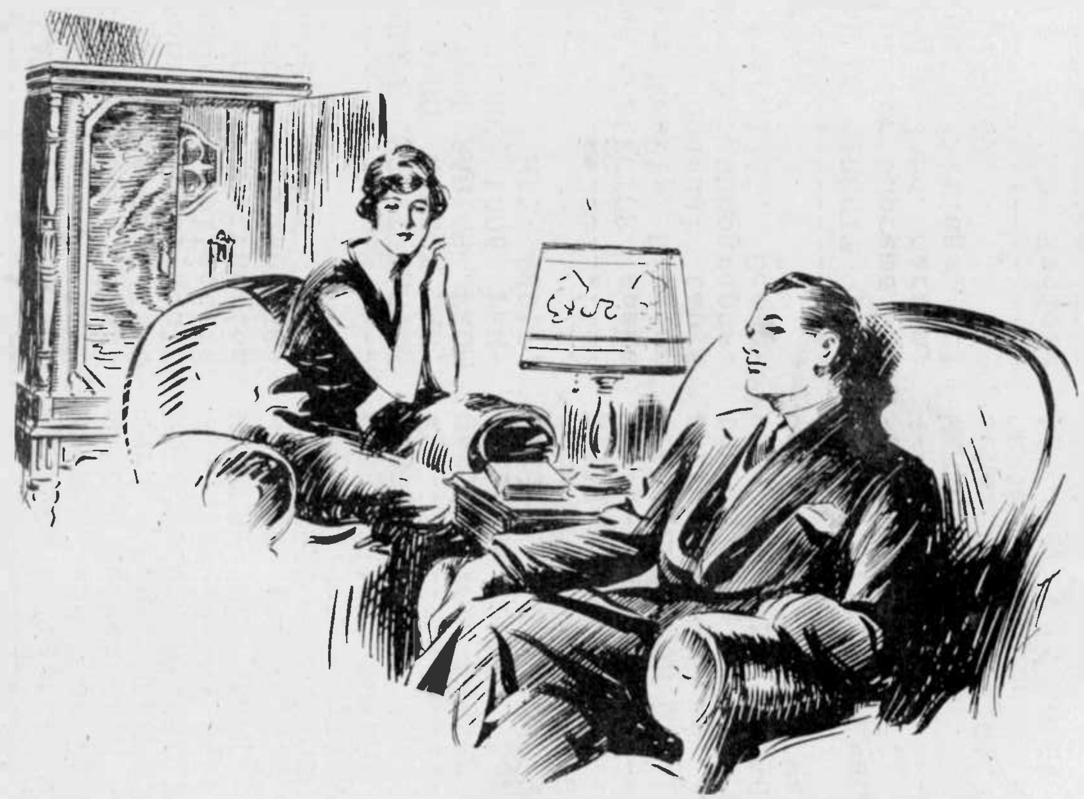

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