

THE HORN SPEAKER

Radio News for October, 1924

An Interview With Secretary H. C. Hoover

By S. R. WINTERS

Read what the United States "Chief of Police of the Ether" has to say relative to the radio broadcasting situation. Through this exclusive interview, Mr. Hoover has cast some light on what we may expect in the future.

that the fundamental thought of any radio legislation should be to retain possession of the ether in the public and to provide rules for orderly conduct of this great system of public communication by temporary permits to use the ether."

Mr. Hoover has frequently decried any indication that would tend to place radio in the hands of one individual or corporation, or any group of persons. He reiterates his viewpoint in this authorized statement when he declares:

AGAINST MONOPOLY

"It should be kept open to free and full individual development and we should assume that there can be no monopoly over the distribution of material. Radio communication is not to be considered as merely a business carried on for private gain, for private advertisement or for entertainment of the curious. It is a public concern impressed with a public trust and to be considered primarily from the standpoint of public interest to the same extent and upon the basis of the same general principles as our other public utilities.

"I can state emphatically that it would be most unfortunate for the people of this country, to whom broadcasting has become an important incident of life, if its control should go into the hands of any single corporation, individual, or combination. It would be in principle the same as though the entire press of the country were so controlled. The effect would be identical whether this control arose under a patent monopoly or under any form of combination, and from the standpoint of the people's interest the question of whether or not the broadcasting is for profit is immaterial. In the licensing system put in force by the Department of Commerce, the life of broadcasting licenses is limited to three months so that no vested right can be obtained either in a wave-length or a license. I believe it is safe to say, irrespective of claims under patent rights on apparatus, that broadcasting will not cease and neither will our public policy allow it to become monopolized."

Secretary Hoover believes that the present system of broadcasting will be developed by the more frequent interlinking of local transmitting stations into a unified chain for the dispersion of events of national significance. The broadcasting of proceedings of the conventions of the two great political parties is a notable instance of this interlinking of several broadcast stations.

"Radio interconnection is the next and most vital step in the field of all human communication," asserts Mr. Hoover. "We have today about 600 local broadcast stations. We all know that the local station can give better service than those far away. Our available wave-lengths permit us to have from two to four nearby stations to every listener. It is thus possible to have two to four alternate local programs at the same time. While programs of local

GOVERNMENT supervision of radio communication, prevention of monopolistic control of broadcasting as a public service, avoidance of Government censorship of broadcast programs and the interconnection of transmitting stations for the dispersion of events of national import—these are among the significant phases of radio broadcasting especially engaging the attention of Hon. Herbert Hoover, Secretary of Commerce. In an authorized interview for RADIO NEWS, he briefly discusses each of these factors and their relations to the government and to citizens of the United States.

"The problems involved in Government regulation of radio are the most complex and technical that have yet confronted us," states Secretary Hoover, who has been picturesquely referred to as the chief of police of the ether. "We must preserve this gradually expanding art in full and free development, but for this very purpose of protecting and enabling this development and its successful use, further legislation is absolutely necessary.

"How profound the changes in this method of communication have been since the regulatory Act of Congress approved in August, 1912, is indicated by the fact that the whole telephonic application of radio is practically a discovery since the act was passed," he continues. "At that time radio was in considerable use as a telegraphic method of communication, more especially with ships, but there was not a single telephone broadcast station in the United States. Some indication of the development of the art is shown by the fact that at the time the act was passed 485 American vessels were equipped for transmission of telegraphic messages. There were 123 land stations, of which one was trans-oceanic. There were 1,224 amateur stations, as I have said, all engaged in transmission of telegraphic signals. Today there are 2,723 American vessels equipped with radio. There are 12 trans-oceanic stations, 790 other land stations and 16,590 amateur sending stations. Where there were no broadcast stations, there are today nearly 600 of them, located in every town of importance in the country. There are certainly three to five million radio telephone receiving sets; therefore, there is a radio audience of anywhere from 10 to 20 million people.

CHANGING CONDITIONS

"The year this act was passed the commercial companies extended heartfelt con-



SECRETARY H. C. HOOVER

gratulations and paid a bonus to the operator who, by his skill, reached a nearby station in Porto Rico, whereas today we communicate hourly, with reliability, a vast number of commercial messages over both oceans. Twelve years ago the amateur boasted to his friends of his communications over a few hundred miles. Today our amateurs, to whom much of our radio progress is justly due, nightly send messages across the Atlantic ocean, and within the last 12 months we have been exchanging broadcast programs with Europe.

"During these 12 years radio has come into use for many other important communications. It is used for communication with air craft, and has found a very important development as a practical compass for ships, which seems likely to even reduce the cost of government aids to navigation

"This increase in use has been due to the tremendous discoveries and improvements in the character of apparatus. The discovery of the vacuum tube for amplification is the foundation for all telephonic work. The tuning and assembling of apparatus has been improved to such an extent that we are able to confine the sending and reception of signals to smaller bands of wave-lengths than was the case 12 years ago.

"At the time the act was passed the wave band occupied by each sending station was so broad that only half a dozen channels were open for sending. Now it is possible, if the maximum use were made of technical development, to send many times that number. For practical reasons, however, the wave-lengths available for telephonic purposes in the present development of the art are much more limited than those for telegraphic purposes and are today practically limited to the range between 200 and 600 meters. Within this area we have about seven possible bands, for sending in any one locality. The number of telephone broadcast stations that can be operated from any one place is, however, more limited than this because of interferences of one locality with another. With the system of staggered zones set up by the Department it has been found possible, in some localities, to work broadcast stations simultaneously on three different wave-lengths or frequencies. No doubt the number of available frequencies will steadily increase with improvement in the art and better adjustment between different purposes.

"If the mechanical condition of the art today were as it was 12 years ago, the vast volume of radio communication now constantly in motion in the ether would create such a pandemonium of interference that the whole art would break down. Were it not for the regulation and the very tenuous voluntary co-operation of today, we should have pandemonium despite the development of the science.

"The tremendous development in electrical communications is to a large extent due to the fact that individual initiative has not only been unhampered by the Government, but has been encouraged to the extent of the Government's ability and regulated so as to give the maximum service. The further legislation needed should, in my view, regulate only to the extent that is necessary in public interest for the development of the science itself, for the service of those who make use of it. It seems to me, therefore,

origin will play a large part in broadcasting, yet radio will not have reached its full service until we have such interconnection of our local stations that we may also enjoy each night the product of our greatest artists and the thoughts of our leading men and women, and may participate in great national occasions.

"All this will add not only great intellectual and stimulative force to the nation, but it will materially help to build up home life. For in the comfort of our own fire-sides, father can smoke, mother can knit and the family can make remarks upon the performance with informality not permitted in public places.

"Our governmental relationships to this particular problem are complex in administration, though simple in principle. We seek to preserve the ownership of the road through the ether as public property that we may maintain initiative by holding it a free field for competition, to keep alive free speech, to avoid censorship and to prevent interference in the traffic."

THE day was a warm one in Spring. The laziness of late June was announced by the drone of insects and the gentle rustle of leaves. The tall stately elms of Yale stood in the heaviest of verdure keeping a lazy watch over the campus against the return of the hordes in search of knowledge. Commencement was just over, the last of the stragglers had just seen their trunks and luggage hauled off to the station in the town's disreputable express vans and the stragglers themselves stood about smoking a last pipe while they prolonged a good-bye until train time.

The walks and campus greens were deserted in a few days. Summer had settled down over New Haven in its fullest sense. A young man strolled leisurely up to Jackson's restaurant. He had a couple of books under his arm and was holding a paper with his free hand. Evidently he had come from the railroad station and was in search of some one. In the restaurant he went to one of the tables in the rear, after speaking to the waitress, sat down and ordered a cup of coffee. He asked after his friend Barbour. He hadn't, the waitress said, been in that day, but she added that the day was yet young.

CONTEMPLATES POST GRADUATE WORK

Immediately the young man pushed his paper to one side and opened the larger of the two books, which was a heavy treatise by an Englishman named Maxwell who had done, it seemed, a great deal of experimenting with electricity and had developed several theories concerning the magnetic properties of coils through which electric currents were passed. The young man was extremely interested in his book for he had, less than a week before, graduated from the Sheffield Scientific School of Yale University in the class of '96. Nevertheless, he was already contemplating three years of post graduate work looking toward a degree of Ph. D. and he chose to make investigations along the line of those in the Maxwell volume, except of course, experiments would go further than those delineated in the heavy book. He was also extremely interested in the wave motions which seemed to postulate themselves more and more prominently as the underlying principles of electricity became better known.

The diploma which the young man had recently received, and which he still placed on his bureau to gaze upon each night before retiring, was given, according to the Latin inscription upon it, to one Lee DeForest.

From time to time as he sat pouring over the pages of fine print he took a drink of the coffee before him. When the coffee was



The Life and Work of Lee DeForest



(Continued from last month)

all gone, he paid for it out of a well worn wallet and walked slowly out to the street and up toward the campus, his two books under his arm. As he started to take a short-cut up toward one of the dormitories, a decided expression came over his face. He looked around, seemingly as if he were trying to find himself in some strange surrounding. Then he bowed his head a little and hastened his speed. Near the dormitory he looked up and called "Oh Barbour."

"Ye ho" came the answer and a tousled head thrust itself out of one of the upper windows. A few minutes later Barbour came down the last flight and asked DeForest if he had had lunch. DeForest had, so they decided to walk to the lake.

"OLD GRADS," BOTH

As they left the campus, both looked fondly and sadly around at the buildings, the ivy and the arching trees. They reminded each other of the good old times represented at each of the crannies about the buildings. They consoled themselves at having passed the under-graduate days and being at last lonely "old grads."

They were sad. Every man who has left an Alma Mater after four wonderful years understands the feeling. With such a sentimental person as DeForest it is not unusual that this feeling should run to the highest pitch.



Dr. Lee DeForest holding the Phonofilm recording device, one of his latest inventions.

Once away from the campus, however, their talk turned to other subjects. With the last of the summer came the great Presidential election and the first race made by William Jennings Bryan. It was the first election in which either of the young men could take a part, both having just recently become of age. They had long talks as they walked, and covered the whole field of politics from the theoretical limitations

of the state to the comparative honesty of the two chief candidates.

From politics the two young philosophers would pass on to the inevitable dream of youth—a Utopia. Hour after hour they would devote to the specifications of their perfect state, dealing in details of the wonderful organization down to the mechanics of the Public Health system. This latter point always obtruded on account of the very bad and ever debated sewage system of New Haven. From their Utopia they would pass on to some engineering problem of the time. It was DeForest's general procedure to name some great want of the country such as electrification of the railroads and then proceed to plan ways and means for doing it. They would spend hours on the problem at hand and having exhausted themselves with their labors, return late to town, go to Jackson's for an omelette or a very thin steak and a cup of coffee, thus closing an enjoyable day.

At other times Barbour could not go and DeForest would start out by himself. Some new creek or small river would catch his fancy. He would make a long exploration trip in search of a fairy-like spot in which to sit and contemplate the woes of the world and the beauties of Nature. Sometimes he would find a particularly fetching place and would return home with the light of a Thoreau convert in his eye. The early hours of the following morning would find the light still burning in his room and Lee sitting at a table laboriously pouring forth his soul on paper, attempting to put the beauty of the past evening into his diary.

As the summer moved on, DeForest spent more and more of his time in the country around New Haven. For the first time in years, much to his disgust and chagrin, he had little to do. He could find no work during vacation time, so most of his time was spent to suit himself. During the bright days he roamed the fields and took hikes. In the evening he returned home to his books, the reading of Maxwell and Hertz occupying most of his time. Toward the latter part of the summer he discovered Emerson and immediately became a slavish disciple of the Boston sage. For recreation from his studies he read the poems and tales of Poe—for the fourth time. He obtained odd jobs with various companies around New Haven. He spent a few days reading meters for the gas company and did some work for older post graduate students in the laboratories.

BEGINS POST GRADUATE WORK

The beginning of the school year in September brought back the old accustomed rush of activity. His course consisted of higher mathematics, with particular relation to vector analysis and analytical equations, alternating currents, theories and history of electricity, and advanced mechanics. For his laboratory work, he was given a place in one of the laboratories under Prof. Chas. Hastings. The first couple of months in the school year were spent entirely in lectures and reading. His first actual experimenting along original

lines was begun in the autumn of 1896, in November of that year to be exact. His first step upon being assigned to a division of the laboratory was to select the various instruments and calibrate them. He spent numerous unpleasant hours at his work, since a veritable flood of logarithms occupied his hours while he was calculating the constants of and dreamed logarithms for a week at a stretch. He almost considered memorizing the tables in order to save the time necessitated in looking them up.

The work was so entirely new to him and the professors were proceeding at such a rate he had little time for anything else. The first break in his routine after the beginning of the work was the death of his grandfather, just at Christmas time.

Coming just 11 months after the death of his father, the blow was exaggerated. He felt it not so much from a sense of personal loss as from the effect it had upon his mother. She had not yet fully recovered from her husband's tragic death. Then, too, it was mid-winter and the family was in dire financial straits. The Christmas had promised to be a sad one—the year had been the hardest in the history of the family. And to add to the already great load of sadness, a few hours after the arrival of the telegram announcing the tragedy, the postman brought a letter to each member of the family written by the old man just a few hours before his death. Each one contained a new dollar bill as a gift of the season.

THE PROM AND HELEN

However, such sloughs of despondency never held him entirely for long. About that time he had decided upon inviting his beautiful Boston cousin to the annual Junior Prom. He had already broached the subject to her in letters and as the time for it drew near he pressed his invitation. After posting the letter in which he urged her acceptance, he immediately was brought back into the old pit of torture. His conscience troubled him for days. And to make it worse, the return of his mother from Iowa was delayed a few days, and the acceptance from Helen, his cousin, was in his hands before his mother returned.

The situation came to more pleasant results than he expected, however. His mother was compliant; in fact, she was more or less in favor of the visit. The Prom was set for a few weeks after Christmas. Preceding Helen's arrival on the scene, the house was decorated and the rooms rearranged. Lee was a victim of himself. Having the best room in the house he was forced out of it in order to make room for his visitor.

She arrived. There was a pleasant day of walks about the campus and the favorite haunts of the students. Then the big night. Dressed as he had never been before, he hired a cab; weeks before he had, with four other social climbers of Yale, bought a box at the Prom and was prepared for the most enjoyable evening of his academic year. All went well at the start, but one can never forecast events. Before the evening was over, a combination of pride and jealousy arose to take the keen edge from his happiness. Helen was dancing with a great number of other men. Lee was self-appraised as to his abilities on the dance floor, but he did not think that this slight defect in his social equipment was sufficient.

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to warrant the coolness in his cousin toward him, which he accused her of showing. The evening was not totally spoiled. There were many pretty girls and the atmosphere was one of gaiety and abandon. By comparison to his general routine it was a Bachanalian revel.

LOVE ATTEMPTS TO ENTER

At four o'clock in the morning, with an air of the Gay Dog, Lee held his arm for his lady, hailed one of the cabs standing by, with a bit more of a flourish than was actually necessary to call the cabby's attention, helped Helen into the dark recesses of the musty-smelling vehicle, took his own seat and gave the man on the box the address. As the street lamps temporarily lighted up the interior of the cab, a young man might have been seen gazing with a discernible bit of worship in his face at the very tired and sleepy, though happy young girl beside him.

As with most such cases of young love there is an anticlimax, and it usually is surprisingly humorous and often pathetic, to the onlooker. At the house, the two revellers slipped into the parlor and doffed their wraps. Lee showed Helen to her room and on the stairs dared to mention his extreme happiness, at having her as his guest to the greatest of Yale's annual functions.

Now it has been mentioned that the young lady made her home in Boston and it is a generally known fact that Harvard is situated almost within a stone's throw of that town. And, one may conclude from the fact that the young lady was pretty, well bred and of good family, that she knew a much larger number of Harvard men than students from Yale.

(To be continued)

Overhauling Radio Receivers

The General Electric table model all-wave receiver shown in Fig. 1 will be used as our example in the illustrations, but the overhaul procedure applies to all radio sets.

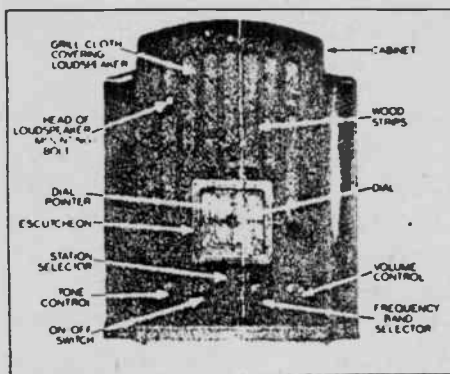


FIG. 1. This General Electric all-wave receiver will serve as our example for the overhaul procedure described here.

Check Performance. Place the receiver in operation and tune in several local and distant stations to see how well the set performs, then check the operation of the volume and tone controls. In later job sheets you will learn how to replace defective controls and how to test tubes.

Remove Chassis and Loudspeaker. Pull the power cord plug out of the wall outlet, and disconnect the antenna and ground leads to the receiver, as was done on the set shown in Fig. 2. Using a midjet screw-driver, loosen the set screws in the control knobs on the front of the set, after which you can pull off all knobs. Knobs with no screws are held by friction and can be removed by a strong, steady pull.

Remove the loudspeaker mounting screws or nuts, and carefully lift out the loudspeaker. Place it on the bench alongside

the cabinet, leaving it connected to the chassis. Now remove the mounting bolts or screws (underneath the cabinet) which hold the chassis in place, and slide out the entire chassis. Replace the control knobs temporarily so they will not get lost. Undoubtedly there will be considerable dust on the chassis and on the various parts; use a soft cloth, a piece of cheese-cloth or a one-inch wide paint brush to remove as much of this as possible.

Now remove the tubes one at a time, wiping off all dirt with the cloth and polishing the prongs with fine sandpaper if they appear corroded. Wipe the top of the tube socket and the chassis in its vicinity, then replace the tube and repeat the process on each other tube in turn. *Never take out*

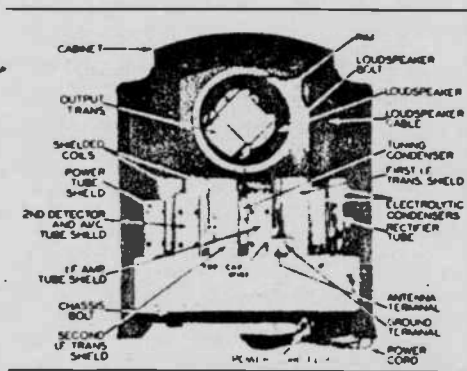


FIG. 2. An inspection of the rear of the set will show how the chassis and loudspeaker can be removed for a thorough overhaul.

more than one tube at a time, for you may get them mixed and replace them incorrectly.

Quite often a tube will be surrounded with a metal can known as a tube shield. One type of tube shield is removed by pulling upward (if there is a connection to a top cap on the tube, remove this first). Another type, made in two parts and known as a form-fitting shield, is held together by a spring steel ring. Pull out the tube and

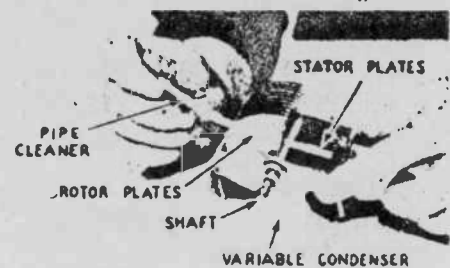


FIG. 3. From the earliest days of radio, pipe cleaners have been used to clean dust from between the plates of variable condensers, as shown above. This can be done without removing the condenser from the chassis.

shield together, then push this ring out of its groove with a screw-driver; the shield will then fall apart and can easily be removed for cleaning.

Turn the chassis over and prop it up on wood blocks so that tubes or other delicate parts will not be crushed. Use a hand bellows, a tire pump, or a vacuum cleaner attachment to blow out dust around the many small parts and wires underneath the chassis; this should be done near an open window if possible. Finish cleaning the underside of the chassis with a brush or cloth. *Do not change the positions of any wires or apply force to any part while dusting.*

It is most important that all dirt be removed from the variable condensers. With the chassis in a normal position again, rotate the gang tuning condenser to its open or minimum-capacity position and run a pipe cleaner between each pair of plates to loosen the dirt, as illustrated in Fig. 3, then blow out any dust which remains.

Any grease or dirt remaining on the chassis after the dusting procedure should be re-

moved with a cloth dipped in a cleaning fluid such as naphtha. Clean the tuning dial window with a soft cloth.

A radio which has been exposed for a long period of time to moisture and particularly to a salty atmosphere, such as at the sea shore, may have lost its vitality due to dampness of the insulation on coils and various wires. The remedy is quite simple in a case like this; all you need is a small electric fan and a portable electric heater.

Set the chassis on end and direct the heater and fan towards it, as indicated in Fig. 4. Change the position of the chassis or heater from time to time to insure that each part will be properly dried out. The fan serves to circulate the heat and to carry

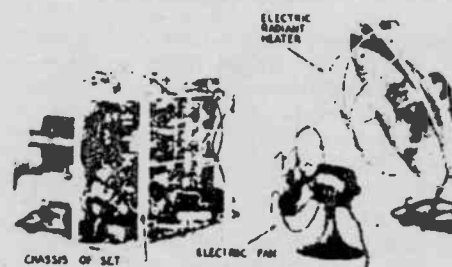


FIG. 4. A simple and effective way of drying out a chassis which has been exposed to moisture.

radio, try to identify all parts by name. The photographs in Figs. 5 and 6, in which important parts are clearly labeled, may be of help to you in this respect. Do not expect to identify all parts, however, until you have studied them in your course.

Grasp each rigidly mounted part with your fingers and move it slightly; if the part appears to be loose, tighten its mounting bolts or screws. The best way to do this is illustrated in Fig. 7; set the chassis on one end, leaning it against a small box if necessary to prevent it from falling over. A set of socket wrenches like that shown in Fig. 8 is handy for this work.

If parts which are riveted to the chassis become loose, hold your claw hammer against the head of the rivet and gently tap the hollow or "curled-over" end of the rivet with another hammer.

Warning: Do not blindly tighten every screw head and nut which you see on a chassis; a great many of these screws and hexagonal-head bolts or nuts are for tune-up or alignment purposes, and will control the settings of trimmer condensers or adjustable coils. You can recognize these screws by the simple fact that they are mounted on a part, and do not serve to fasten that part to the chassis. A few typical alignment screws are shown in Fig. 9.

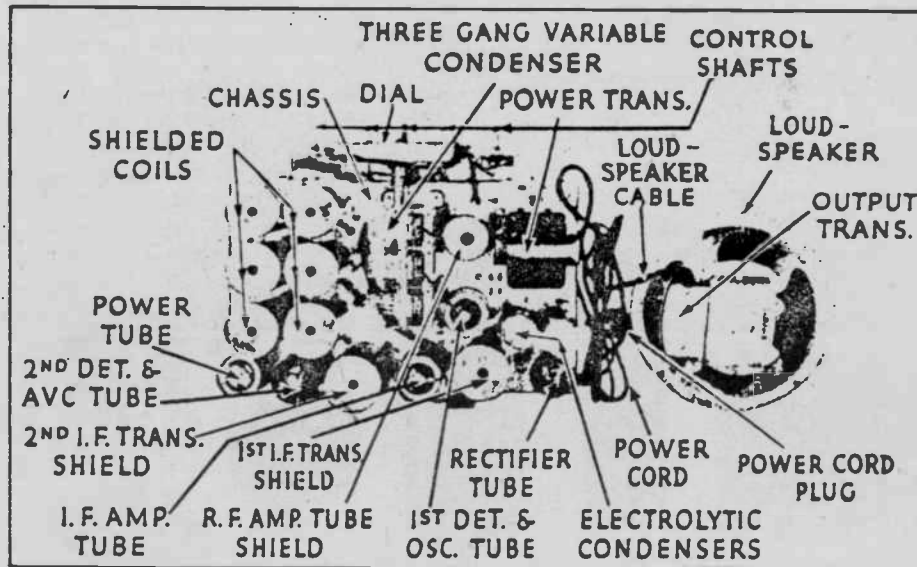


FIG. 5. Top view of the chassis of the General Electric receiver used as our example, with important parts clearly labeled to assist you in identifying similar parts on your own set.

off water vapor. Do not bring the heater too close to the chassis, for this may melt the wax used in various parts. A 100-watt lamp in a desk lamp reflector will do in place of a heater, but more time must be allowed for drying. Remember that some coils are mounted on top of the chassis; apply heat to these also.

Inspect For Loose Parts: Carefully examine each of the parts above and below the chassis. Now that you are learning

Check Connections. Inspect each soldered connection beneath the chassis in an orderly manner, section by section. Resolder each joint which appears to be defective; joints which have a green and corroded appearance, joints covered with excessive rosin, and joints in which the solder did not flow, smoothly are often in need of resoldering. You can test joints for looseness by pulling on the wires with a pair of long-nosed pliers.

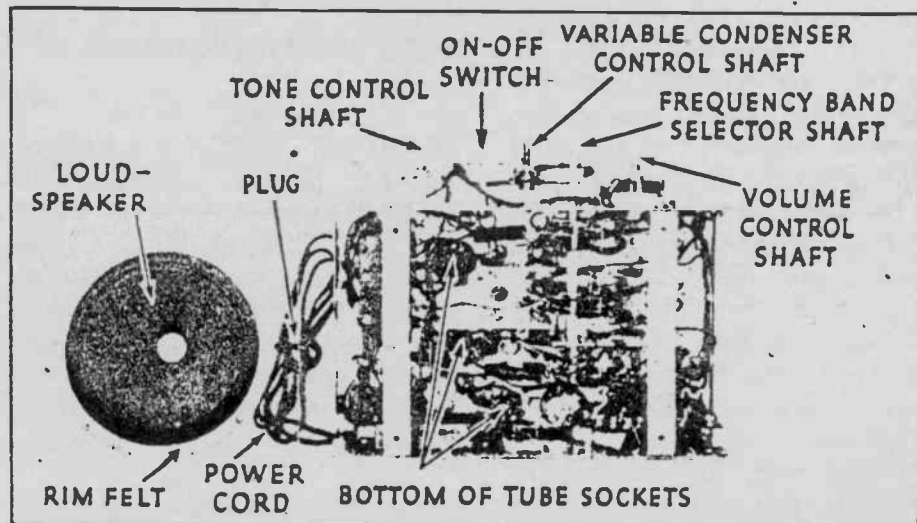


FIG. 6. The underside of a receiver will be unfamiliar to you for some time yet, but gradually, as you progress with your course, you will become able to identify parts beneath a chassis like this.

Be on the lookout for insulation which is bruised or cut, particularly on wires which go through the chassis. If you find a lead with defective insulation, either replace with a new lead or unsolder one end and slip a piece of varnished cloth tubing (called "spaghetti" by radio men) over the wire so it will cover the break in the insulation, then resolder the lead.

Inspect the power cord for defective insulation, particularly at the point where it enters the chassis and at the wall plug. Give the same attention to the grid leads on top of the chassis. Polish the grid lead caps with sandpaper or scrape with a knife, and adjust so they make firm contact with the top caps of the tubes. Be sure that each tube shield makes good contact with the

The performance of the receiver should be as good as or better than that originally secured at that time of the day or night.

In an actual service job, this will be the time when the receiver is tuned up or aligned for the best possible performance. This alignment procedure will be taken up in a later job sheet.

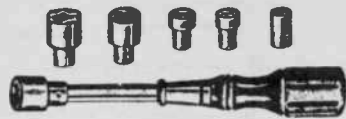


FIG. 8. A set of socket wrenches for the hexagonal nuts encountered in radio work is handy to have on your work-bench. Sockets are detachable in this set. Some servicemen prefer a set having an individual and permanent handle for each socket, as the small sockets are rather easily lost.

Replace Chassis and Loudspeaker In Cabinet. Remove the control knobs and slide the chassis back into its cabinet. Replace the loudspeaker next, then tighten its mounting bolts or screws. Now replace the chassis in its cabinet, and pull each corner of the cabinet in turn over the edge of your work-bench so you can replace the mounting bolts or screws. Always pull out the power cord plug when handling the chassis, for otherwise there is a chance that you may get your fingers on terminals which are "hot," and receive a severe shock.

Replace the control knobs, and polish the outside of the cabinet carefully with a good grade of ordinary furniture polish. Now check over the aerial and ground systems carefully, cleaning and resoldering any poor connections. Be sure the lead-in wire does not make contact with the building or any other objects. Wipe off antenna insulators if they are accessible. A final check of receiver performance completes your overhaul and tune up job.

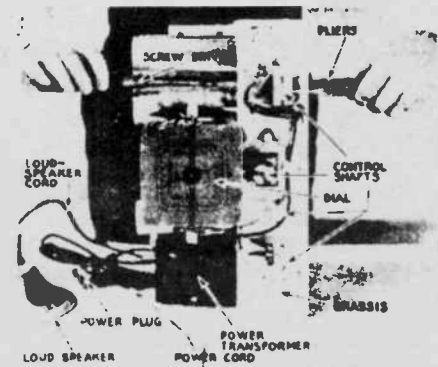


FIG. 7. Learn to handle a chassis in this manner when tightening loose bolts.

chassis, and be sure that the grid leads do not touch the shields.

Check Performance. Plug in the power cord, re-connect antenna and ground wires, place the set in operation, and tune in various stations just as you did originally.

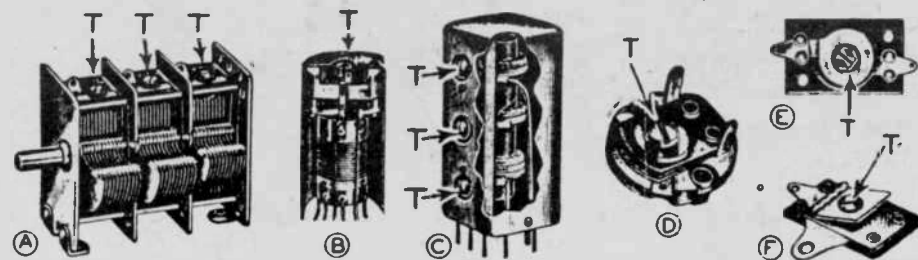


FIG. 9. Screw heads and hexagonal nuts like those marked T in this illustration are for alignment or tune-up purposes, and must not be touched while overhauling a chassis. You will find these alignment screws on gang tuning condensers as at A, on top of a metal coil shield as at B, at the side of a coil shield as at C, and on separate parts like those at D, E, and F, which are mounted directly on the chassis.

HAPPY COLLECTING

After publishing 187 issues of THE HORN SPEAKER, I am asking all readers to tell their fellow collectors about the newspaper. We need more subscribers. Since the ads have now gone to over 900 square inches, there is now a rebirth of interest in THE HORN SPEAKER after a lull in 1988.

I should like all readers to feel that the newspaper is for the benefit of our hobby. Our increase of ads mean that the editorial space must increase, since postal regulations require that only 5 issues a year can have over 75 percent ads.

Please send THS an article, which you feel will help other collectors and the hobby as well as preserve the rich history of

broadcasting and the progress of radio design.

Happy collecting, Jim

MASSIVE EFFORTS of D. H. MOORE

I examined Volume I, INTRODUCTORY ESSAYS, a volume of VINTAGE RADIO IDENTIFICATION SKETCH-BOOKS by D. H. Moore. Now, I believe that they would be a good prescription for any student studying the history of technology. If I were teaching a college level course on the societal and technical influence of radio, these essays could be required reading. "I believe you will find it easy to read, on the one hand, and worthy of your reading-time, on the other. To my knowledge, no-one has ever

gathered together that amount of personally relateable data in one place, with which the serious hobbyist, not the "collector", can find a ready identification. The fact that the Sketch-Books and Monographs have been paying their way over the last two or three years could suggest that they will find a need in the hobby, even though the Sketch-Books are not a commercial venture - in other words, they do not make money, as the saying goes. Still, there have been those who have been kind enough to tell me that they find the works a distinct contribution to the hobby, and that justifies the rather massive efforts." was some words related to THE HORN SPEAKER by D. H. Moore.

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FOR SALE BY D. H. MOORE: ELECTROLA (RCA) 64 CONSOLE, 6' High; Excellent Original Finish & Inlays; Original Buchram-Bound Record Albums Mint; Phonograph & Meter Intact; Cannot be shipped. Photographs Available. Price: \$1,000. P. O. Box 521, Palo Alto, California - 94302.

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FOR TRADE — ATWATER KENT

LIKE NEW AK BREADBOARD PARTS in original boxes. Will trade for parts we need for our AK 10 breadboard. Jerome Schliepp, 831 Berlin Road, Ripon, WI 54971. (414) 748-2471.

TRADE — ATWATER KENT

TRADE: I HAVE A NICE A-K 10 "breadboard" with M horn speaker for trade for a Collins bakelite panel amateur transmitter. Also need schematic for a Collins 32G transmitter. Parker, W1YG, 87 Cove Road, Lyme, CT 06371.

WITH 3 COILS \$75.00 :::: DAVID MCKENZIE, 516 SOUTH EXETER STREET, EUSTIS, FL 32726. (904) 589-0149.

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RIDER, HOWARD SAMS, RCA, GE, PHILCO SERVICE DATA FROM 1920 TO 1960. WRITE WANTS— SASE. PARTS, TUBES, SPEAKERS, COILS, VOLUME CONTROLS, DIAL BELTS, BULBS, AUDIO, POWER TRANSFORMERS. PLUS 1000'S OF NEW AND USED PARTS — SALES. SERVICE SINCE 1930 — SASE FOR LIST. — KRANTZ, 100 OSAGE AVENUE, SOMERDALE, NJ 08083.

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HIGH QUALITY AUDIO AND POWER. Approximately 100, mostly tube type. Including audio, power, mike, filament, 12 & 24 volt, chokes, modulation. Many new and boxed. UTC Commercial Grade, Stancor, Thordarson and Merit. Half individual prices. Sell lot \$295.00. Broadcast Console. Professionally custom built. High quality UTC Transformer, Daven broadcast type faders. Chrome chassis \$95.00. Paul C. Crum, W9LC, 6272 N. Cicero Avenue, Chicago, IL 60646. (312) 282-3033.

* RADIO RELATED JEWELRY, send a

L.S.A.S.E., \$.45 postage to: Michael S. Sabodish, Sr., 28 Middlesex Street, Matawan, New Jersey 07747 for illustrated list.

TUBE CHECKER (OLD, NEW TUBES) POCKET SIZE, unused with instruction manual. quantity available \$6.50; Old crystal radio. kits, Instructions, all parts included, rare, new supply available, \$16.00 each; all above postpaid; large electronics, parts catalog \$1.00; D. Testa, Box 9064-HS, Newark, NJ 07104.

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Packard 400E AC voltmeter, J-38 keyer, Knight model KG 685 color pattern generator; different types of plug in relays, CB and old unusual plug in crystals, Midland CB base station model 13-879B with large amplified desk microphone; Medical Cardi-all by Beck-Lee in wooden case; old metal Connecticut telephone, 2 Jensen osmium tip phono needles; good used tubes- 75 cents each plus shipping. Joseph Zambri, R D 4, Box 216, Towanda, PA 18848. (717) 265-4825.

THE VINTAGE RADIO FOUNDATION - - - are you a member? - if not, get full information from Jim Lanphear, 4062 Oak Point Ct., Hayward, CA - 94542.

FOR SALE: RADIO RELATED TIE CLASPS & lapel pins, send a L.S.A.S.E., I also buy old wooden clocks; Michael S. Sabodish, Sr., 11 - A Matawan Avenue, Cliffwood, NJ 07721.

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FOR SALE: AIRLINE MIDGET BAKELITE,

model 7???, very good, \$25. Philco 49-603, very good, opens like a book, \$25. Heathkit Mohican, mint, \$75. Admiral Bakelite, 45-J15, BC/SW, very good, \$25. JUNKERS: RCA Victor 45X1, good cabinet, FOS page 155. Crosley 56-PB, AC/Batt. Philco Transitone 52-540. All \$5. Add shipping. WANTED: Mint condition 24 hour clock for Hammarlund HQ-100A with installation instructions. J. S. Lowe, 3025 Harpers Ferry Road, Sharpsburg, MD 21782.

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HEATHKIT HA-100, SHIP COD. I. G. Clute, K5DXV, Route 1 Box 1, Jewett, TX 75845.

R-E 69 EARLY RECEIVER, rack mount, generally good, weak on 160 meter band \$95; loose coupler, unusual replica \$35; crystal grinding outfit \$15; very early RCA/GE/Acme transmitter power supply transformer and choke (for Vu-202 & such) iron case \$45; Polaroids \$1.00. All plus UPS. Paul C. Crum, W9LC, 6272 N. Cicero Avenue, Chicago, IL 60646. (312) 282-3033.

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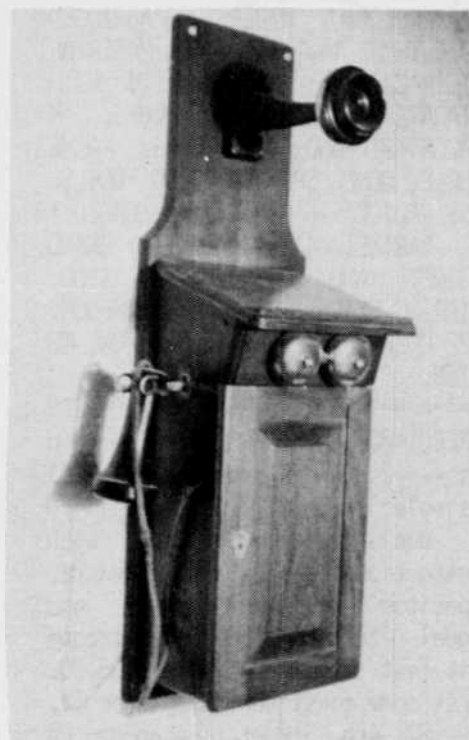
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STEWART WARNER model 305, Stewart Warner speaker, American Bosch model 360, Silvertone model 1386, Clarion Jr. 320 superhetrodyne, small mirror tone deluxe, "ivory colored radio with red knobs, case only for a Kennedy cathedral. Send for new list. Clifford Schoen, 549 Fulton St., Seymour, WI 54165. Phone (414) 833-2429.

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FOR SALE — HALLICRAFTER

 * HALLICRAFTER SALE — S-15 SKY CHALLENGER (1936) nine tube superhet with copy of instruction sheet and schematic— all original except cabinet is home brew; Two- (as a lot) S41G Skyrider Jrs. (1946) all original, one dial is badly faded; S38C (1955) all original, very clean with copy of manual; HT 18 (1946) 4 watt VFO 80 thru 10 with NBFM, all original, front panel, very good, case missing; SX105 (1958) ten tube VHF (152-173 megahertz) FM receiver— all original good condition. Offers please. or what do you have to trade? Parker, W1YG, 87 Cove Road, Lyme, CT 06371. (203) 434-7783.

FOR SALE — RADIOLA

FOR SALE: FREED EISEMANN, model NR-7, front of cabinet is good, cabinet could use varnish, with tubes, in working condition with home made power supply and original instruction book, very clean inside, no. 96088. RCA model no. 75X17, serial no. B002243, rare Japanese art work on cabinet, works, very clean with tube layout, etc., on back of set, \$175. Bill Wood, 714 W. Main Street, Memphis, TX 79245. (806) 259-2918.

VICTOR (ALHABRA) lowboy, Orthophonic Victrola in right side, working excellent, Radiola 20 battery radio in left side, tubes and speaker have continuity, did not apply power to battery radio, physical appearance is excellent. Asking \$300 plus shipping costs. Phil Guinan, 105 Page Road, RFD 7, Litchfield, NH 03051. (603) 889-6213.

FOR SALE — RECORD AUCTION

 I am planning to issue a ten inch black labeled Victor record auction closing in December. Teh records will range in age from 1905 through

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 * SCHEMATICS: 1920-1960. RADIO/TV CANADIAN/ELECTRONIC ORGAN/PA/MISC. Schematics are \$3.50 plus postage. SASE for quotes on factory manuals. Your satisfaction or money refunded. 1924-1932 Atwater Kent electrical values: 22 pages — \$4.00 ppd. 1931-1932 Philco electrical values: — \$2.50 ppd. — Alton Bowman, 4172 East Avenue, RD 2, Canandaigua, NY - 14424.

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FOR SALE—RIDERS MANUALS, ABRIDGED (VOL. 1-5) AND VOL. 6 THROUGH 16 \$275.00. VOL. 9, 10, 14 \$20.00 EACH. ANTIQUE RADIO SERVICE, O. H. McDONALD, 2535 WEDGLEA #124, DALLAS, TX 75211.

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wide, walnut with two large doors in front, extra set of tubes \$200.00. (201) 228-0435. J. Baerenrodt, 5 Pine Road, Roseland, NJ 07068.

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TUBES FOR SALE: sub-miniatures; 1AD4, 1AH4, 1AJ4, CK636, CK637, CK644. Acorn type; Eimac C1M 15E, 955, 957, 9004, MINATURE; 426A, 9002, 9003. NUVISTOR; 2CW4. CRT; 2BP1, 3BP1. TX tubes; VT4C, 10Y/VT25, WE CW 5D21, HY40Z, WE 393A, CRP 705A/VT255, JAN 715B, 807, CON 836/VT236, CKR837, CUE838, 866A, 5514, GL8020. MISC.; 2X2A, 3B24, 3B26, 2K25 KLYSTRON, RK60, CRP72, HY114B, HY615, 717A, 885, 1625, 1626, 1642, 2050, 6080WA, 6550, 7193, MOST ARE NEW. (701) 282-6379, Ernie Jury, RR1, Box 373, Harwood, ND 58042.

THORPARSON FLYBACK YOKES \$15. POSTPAID 2 - 167, Don Aldred, 39 East 8th Street, Jacksonville, FL 32206.

FOR SALE: UV201A's, good emission, brass base, no tip, (have 60) \$15.00 each; Riders 1-5 abridged, 6 thru 14, \$150.00; AK models 20c, 21, 30, 32, 35, 49; Acme double cone speaker \$35.00; Radiola 17 cabinet \$10.00; Radiola IIIa cabinet \$15.00; Radiola 16 cabinet \$5.00; Shipping extra. Will trade for AK, RCA or DeForest items. — Raymond Thompson, 7422 Cherry Tree Drive, Fulton, MD 20759.

30 DAY SALE: new tubes in original cartons \$2.00 each. 0Z4, 1AD2, 1BC2, 1R5, 2AV2, 3HQ5, 3Q4, 3S4, 4BZ6, 4BZ7, 5AV3, 5U3, 6AH4, 6AL5, 6AV4, 6AMB, 6AQ6, 6AS8, 6AV3, 6AY3, 6BC7, 6BF6, 6BJ3, 6BK5, 6B8, 6C17, 6CN7, 6CS7, 6CU5, 6CUB, 6CY7, 6DB5, 6DK6, 6E45, 6FS5, 6GC5, 6HZ6, 6KZ8, 6U8, 6W6, 7AD7, 8A48, 8CX8, 10EG7, 12A4, 12AB5, 12AL5, 12AT6, 12AT7, 12AV5, 12AV6, 12AZ7, 12C5/12CU5, 12D4, 12DB5, 12DT5, 12KS, 13DE7, 14E6, 14E7, 19AU4, 19J6, 35B5, 35W4, 35Z3, 50E45, 5963, 5964. Add \$2.40 shipping (Wisconsinites add 5%) Don Diers, 4275-S4 North 50th Street, Milwaukee, WI 53216-1313. Send \$1.00 (refundable) for lists of tubes and stuff.

FOR SALE: GRILL CLOTH. New, custom-

made material in diamond pattern. Good match for 1930's radios. \$6.00 for 10" X 12" piece, postpaid. Send SASE for sample. Michael Katz, 200 East 30th Street, Apt. 3E, New York, NY 10015. (212) 725-0736.

TUBES ONE-V 6.00, 6V5/6G5-6E5 12.00, 6L6A 17.00, 6L6 GC 10.00, 5 and 12 V 3 and 4 prong vibrators 12.50 all ppd. H. f. Brammell, 204 E. Maple, Americus, KS 66835.

FOR SALE: NEW IN ORIGINAL BOX, 215-A WESTINGHOUSE \$30.00. ONE BRASSBASE UV-201-A TUBE EX. CONDITION POST PAID. \$20.00 NO TIP USED. CLEON BOUTHE, BOX 235, COHOCTON, NY 14826.

TELEVISIONS

RCA CT-100 FIRST PRODUCTION COLOR TV set — beautifully restored cabinet and meticulously restored electronics with a great 15" color picture like 34 years ago (1954). An opportunity is now to own a unique electronic invention of the century. SASE and \$1.00 for photo. Bill Russell, 3236 Laurel Canyon, Santa Barbara, CA 93105. (805) 682-8115. Accepting offers through March 1988 (min. bid \$2,500 or \$3,500 sold outright.)

RCA TV Model 8PT7010 in red metal case in working condition. Included second set same model for parts. Make offer. John Schellkopf, 1344 Goucher Street, Pacific Palisades, CA 90272.

FOR SALE — ZENITH

I HAVE A CHASSIS for a Zenith 5301 console with 8 1/2" black dial, with tubes. \$20.00 and UPS. H. F. Brammell, Box 319, Americus, KS 66835.

THE CABINET IS IN MINT CONDITION and the radio plays. It is a Zenith 12 tube superhetrodyne with a tuning range 540-13400 kyc., chassis 1204-A. Marshall T. Bond, 8713 Linkfair lane, Houston, TX 77025. (713) 663-0029.

FOR SALE: 1940'S VINTAGE ZENITH CONSOLE radio and phonograph. Cabinet is in excellent condition. \$250.00 — Call (815) 838-5393. 5 p.m. to 10 p.m. c.s.t. Dick Stauss, Rt. 1 Box 399, Lockport, IL 60441.

TRADE — ATWATER KENT

TRADE: I HAVE A NICE A-K 10 "breadboard" with M horn speaker

for trade for a Collins bakelite panel amateur transmitter. Also need schematic for a Collins 32G transmitter. Parker, WYG, 87 Cove Road, Lyme, CT 06371.

WANTED — ATWATER KENT

FOR MODEL 812 receiver, original factory service data, any other information, power transformer, Tune-A-Lite lamp. B. T. Wooters, WSKSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED: ATWATER KENT CATHEDRALS, ESPECIALLY MODELS 90, 92, 228, 246, AND 567. JIM COLLINGS, 12005 VICTORIA PL., OKLAHOMA CITY, OK 73120.

WANTED — BRUNSWICK

ONE PUSH BUTTON for a Brunswick radio. Chassis M-27-6 serial # 1237. It is brown bakelite, 7/16" in. diameter, 1" long. George C. Edwards, Route 3, Box 956, Henderson, NC 27536.

WANTED — CRYSTAL SETS

BUYING HOME MADE OR MFG. CRYSTAL SETS OR ITEMS. Tom Hartley, P. O. Box 29284, Parma, OH 44129

HOME BREW CRYSTAL SET. Dial type mounted on nice wooden cabinet. Vernon Kostohryz, 600 Lakeside 3A, Brownsville, TX 78520. (512) 541-5692.

WANTED — EVEREADY

* EVEREADY MODEL 6 dynamic speaker in restorable condition for my collection. Ed Mondor, 121 Gateway Drive, Greenville, SC 29615. (803) 268-0952.

WANTED — GENERAL RADIO

ALWAYS INTERESTED in older General Radio test equipment and components. Frederick G. Suffield, 817 West Fir, SEQUIM, WA 98382. (206) 683-6482.

WANTED — GENERAL (mixed)

* INDEX FOR RIDERS AUTO RADIO VOL'S 1 AND 2. GERNSBACK OFFICIAL RADIO SERVICE MANUALS VOLUME 5, 6, INDEX. ANY PHILCO CATHEDRAL CABINETS OR UNRESTORED SETS. ANY JUKEBOX PARTS OR LITERATURE. INFORMATION ON AN ELECTRONICS MEASUREMENT CORP. MODEL

NOTICE!

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502 SIGNAL GENERATOR, BUICK TRANSISTOR RADIO, ANY TROY RADIO, CABINET FOR PILOT TV-37 TV SET, 3KP4 CRT, CAR RADIO SERVICE MANUALS AND PARTS BOOKS, NEW 600V CAPACITORS IN BULK LOTS, 50/30 MFD - 150 V ELECTROLYTICS, REPLACEMENT OR FACTORY SNT., RF, IF COILS IN BOX LOTS, MEISNER COIL CATALOG GIVING INTERCHANGE FROM MFG. PART NUMBER TO MEISNER NUMBER, PHILCO 70 DIAL ESCUTCHEON (BEZEL) TUBE SHIELD, ALVIN HECKARD, RD 1, BOX 88, LEWISTOWN, PA 17044.

* VICTOR THERAMIN., Complete if possible. Also power mains unit, as used in the 1926 Brunswick Panatrop/ with Radiola console PR148C or PR138. Herald horn for 1924. Ampion number AR-15t, Ampion number AR-45. George Anglin, 938 E. Prince Road, Tucson, AZ 85719. (602) 887-2899.

* WANTED BY COLLECTOR/ RESTORER OLD AMATEUR TRANSMITTERS WITH BAKELITE PANELS AND SQUARE MOUNTED METERS; MILITARY TYPE TV-2 TUBE CHECKER, PARKER, WYGG, 87 COVE ROAD, LYME, CT 06371. (203) 434-7783.

* SET OF KNOBS for Philco model 7T (page 124 F.O.S.) or Philco model 38-4. Conrad Spivey, 6226 S. Inwood, Shreveport, LA 71119. (318) 635-9056.

* 1. BATTERY BOX FOR GREBE SYNCHROPHASE MU1 — 2. BLUE NEUTRONOUND RADIO, FRED SCHULTZ, 1246 LINCOLNWAY S., LIGONIER, IN 46767. (219) 894-3092.

FEDERAL JR. XTAL SET, good condition; medical quack machines, shocking belts, etc.; RCA items - Concert, ER 753, Radiola 24, RS;

David Moore, 3213 Regal Oaks, Pearland, TX 77581. (713) 485-1705.

WANTED BY D. H. MOORE: INFRADYNE 28 Cover & Baseboard; ULTRADYNE L-3 Complete; RAVEN Super-Het Schematic; PILOT AF "Redi-Blox" (2); HAMMARLUND Shield Boxes & Auto-Couplers, late model (3); THORDARSON 171/250 Power Compacts; ACME D-Coil, R-2, R-3, R-4 RF Transformers; SAMSON PAM/P-PAF Transformers & Power Chokes. P. O. Box 521, Palo Alto, California - 94302.

DIAL AND DIAL DRIVE FOR A PHILCO 16 CODE 121 OR JUNKER CHASSIS FOR SAME; UTAH DRIVER FOR THE BUILT-IN HORN ON A FRESHMAN MASTERPIECE. THOMAS BISEL, 2266 HALYARD COURT, SAINT LOUIS, MO 63129.

GENERAL RADIO DIAL KNOBS WITH METAL SKIRTS, WESTON SURFACE MOUNT METERS, AND ANY PRE-WWII AMATEUR RADIO EQUIPMENT, PARKER, 87 COVE ROAD, LYME, CT 06371. TEL. (203) 434-7783.

ORIGINAL BOXES that the following radios were packaged in when new: Motorola 65L11 and 65L12 (1942-1946), RCA "Globe Trotter" 66BX and 8bX6 (1946-1948) and Mitchell "Lullaby bed lamp radio" 1250 and 1251 (1948). Write to: Mike Hanke, 1036 South 15th Avenue, Wausau, WI 54401.

TEN TEC TRANSCIVERS: ARGONAUT, POWER MITE, SWR, ANT, TUNER, TEN TEC SIGNALIZER, QRP MODULES, VO1, MX-1, AA-1, TX1, R. OLMSTED, K4UJZ, 608 W. THOMPSON LN., MURFREESBORO, TN 37129. (615) 893-5344.

L'TATRO, WILCOX-GAY, KINGSTON,

MIDLAND (Decorah, IA made), KAROLA, PHILLIPS (made in Kokomo, IN) and other lesser known brands. James A. Fred. R 1, Box 41, Cutler, IN 46920.

RIDER'S TROUBLESHOOTER'S manual Vol. I, 1929; AK model R horn; RCA Radiolas VII; VIIB; special; parts for Zaney Gill cathedral; parts for Sparton model 15; Raymond Thompson, 7422 Cherry Tree Drive, Fulton, MD 20759.

WANTED- HALLICRAFTER TRANSMITTER HT-6, HOWARD RECEIVER 430, STANCOR, THORDARSON TRANSMITTERS, POWER SUPPLIES, PARTS FROM ABOVE TO BUILD OR RESTORE. K4UJZ, 608 W. THOMPSON LANE, MURFREESBORO, TN 37129.

WANT TO BUY HEADBOARD RADIO, 1949 - 1950. Will pay \$20.00. John Smith, 3824 Dutch Village Road, Apt. 52, Halifax, NS Canada B3L 4G2.

WANTED: 2 - 216A VACUUM TUBES, Continuity check on filament NG. Check with 6 volts 1.3 amps. for filament glow. WANTED: Gillfillan or Garod Neutrodyne receiver. Uses UV199's has meter on panel for A and B voltage. T. Drogoski, 507 Coal Valley Road, Jefferson Boro, PA 15025.

WANTED: CHASSIS FOR CROSLEY Buddy Boy model 58 and speaker, chassis and power supply for AK model 53, part for AK "breadboard" where 3 tubes sit on. Jerome Schliepp, 831 Berlin Road, Ripon, WI 54971. (414) 748-2471.

WANTED: EARLY CANADIAN RADIO MAGAZINES SUCH AS CANADIAN WIRELESS, RADIO INFORMER AND "RADIO". QST FOR 1918-19 ALL WAVE RADIO, SHORT WAVE CRAFT 1931, RADIO DESIGN AND RADIO BROADCAST 1928, RCA VICTOR R35 WITH CABINET, AUDIO TRANSFORMER FOR RCA R15 OR RCA RADIOLA 48, RADIOLA 20 WITH GOOD AUDIOS, SCREEN GRID TYPE BROWNING DRAKE OR FACTORY BUILT SINGLE CONTROL MODEL, SPARTON TRF MODEL 5-15 1925, COMPLETE CHASSIS WITH DIAL OR JUST GOOD DIAL SCALE FOR RCA 15 OR RCA RADIOLA 48, JONES 7 PIN PLUG WITH OR WITHOUT CABLE, CRYSTAL DETECTOR FOR RADIOLA V AND SE1420, RADIOLA 20 CHASSIS AND RADIOLA 16 CHASSIS BOTH WITH VERY GOOD AUDIO TRANSFORMERS, RON A. MCNEILL, P. O. BOX 472, Yorkton, SASK CANADA, S3N 2W4.

BUYING SCOTT AND McMURDO SILVER, WILL MATCH OR TOP ANY OFFER. JAMES E. BRAGG, 30881 ALISO CANYON ROAD, ACTON, CA 93550. (805) 269-0528.

DIAMOND "T" RADIO, dead horns,

speakers, fixer upper sets, 32 volt items, parts for Bremer Tully Counterphase, Thorola, Stewart Warner 300, will swap repairs or? — Jim Barratt, 26313 SE Leonard Road, Camas, WA 98607.

HOLTON ALTO SAX made in the 1920's. Must have at least a 5" diameter bell and have a 5 digit serial number starting with number one or two! Send photo and complete description to: Saxophone, P. O. Box 773, Wausau, WI 54402.

FRONT DOOR of AK Kiel table. Also want 16mm sound print of 3 stooges, "A Plumbing We Will Go." Jim Baker, 704 Medway Road, Hagerstown, MD 21740-4130.

WANTED — HALLICRAFTERS

HALLICRAFTERS SHORT model SX42. Call (312) 961-7737. Rich.

FOR SX-15 SKY CHALLENGER — original owner/ operator manual, any service information. B. T. Wooters, WSKSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED — LEUTZ

WANTED FOR LEUTZ MODEL "C" super-het.: 2 Weston No. 301 voltmeter 0 - 10 volts DC. 2 Weston no. 301 ammeter 0-5 amps. DC. 4 General Radio type 231 A audio transformer. 6 special Leutz I.F. transformers. 1 special E.I.S. (Leutz) oscillator coil. 1 special E.I.S. (Leutz) R.F. coupler coil. John A. Rawlins, Jr., 1920 Stephenson Drive, Mesquite, TX 75149. (214) 285-2313.

WANTED — LITERATURE

* OPERATING INSTRUCTIONS OR SCHEMATICS for the following. Electro Battery Eliminator, models F and P; Atwater Kent B power unit, model R; Instructograph code instructor; the Ferret test speaker model 721, manufactured by Coast Electronics; Sprague Tel-ohmike model TO-4 capacitor analyzer; Superior Genometer model TV-50 A; — Tube Testers: pre c:sl development mdl III - Precision mdl. 10 - 12. Navsh:ps Tech. manual 93883 PLS. 6-24; Standardyne Radio, Standard Radio Corp.; RCA mdl. 64E3 superhet... FOR SALE: Riders volumes 6, 7, 8, 12. Walt White, 4203 Hookheath, El Paso, TX 79922. Tel: (915) 584-4744.

* RADIO NEWS MAGAZINES: 1923; all

except August and November, 1924; need March, April, May, June and September, 1925; need January, February, March, April and July 1926; all except January, February, April and October 1927; all except June, July, August, November and December 1928; need October, November and December 1929; all except March, June and September 1930; need December only. Have a few duplicates for trade. Send your lowest price and condition to — Jim Fred, R 1, Box 41, Cutler, IN 46920.

KNIGHT RADIO 6 VOLT storage battery operated. Patented numbers are by the Hazeltine Corp., model 88BE1649, in pencil this number 88BE121K, has phono input plug, tubes are; 6N5 tuning eye, 19, 6D8, three 6S7, two 6L5 — Philip O'Donnell, P. O. Box 944, Alleghany, CA 95910 — Tried two other magazines with no success. Hope I get results.

ORIGINAL LITERATURE showing complete line of 1973, 1974 and 1975 Motorola AM and AM/FM portable radios. Also original owner's manual for 1940's Motorola portable radios. Also original owner's manual for 1940's Motorola portable AM (model 65L11 or 65L12) Mike Hanke, 1036 S. 15th Avenue, Wausau, WI 54401.

SERVICE MANUAL FOR NATIONAL NC-7" TV RECEIVERS. FRED EMERSON, 627 ILLINOIS AVENUE, ELGIN, IL 60120.

SAM'S FOLDERS No's. — 55-5, 60-1, 61-16, 80-4, 81-3, 82-1 and 104-2, FRED EMERSON, 627 ILLINOIS AVENUE, ELGIN, IL 60120

INSTRUCTION MANUAL FOR EICO MODEL 950 A RC BRIDGE CONDENSER CHECKER. H. F. BRAMMELL, 24 E. MAPLE, AMERICUS, KS 66835.

EVERY DAY MECHANICS, VOL. I, NO. 4, MAY 1916 OR A COPY OF "HOW TO BUILD A TRANS- ATLANTIC WIRELESS RECEIVING SET. K. A. LADD, 5240 44TH AVE. S., MPLS., MN 55417. (612) 722-6786.

LAFAYETTE RADIO CATALOGS — 1960 THRU 1968, PLEASE STATE CONDITION AND PRICE. MR. MICHAEL S. SABODISH, SR., 11 — A MATAWAN AVENUE, CLIFFWOOD, NEW JERSEY 07721.

WANTED: OPERATING MANUAL and tube data sheets for Jackson Dynamic tube tester model 636. Zerox copy O.K. Frank Hoffert, 19605 Chardon Road, Cleveland, OH 44117.

WANTED — INFORMATION AND SCHEMATIC

J-5A
LIMITED QUAN.



\$24
PREPAID



J-7A \$29
AS FOUND-
YOU RECONDITION

THE KEYS ARE OF HEAVY DUTY CONSTRUCTION WITH A LARGE NAVY TYPE KNOB AND BRASS KEYING ARM. THE BAKELITE BASE IS 3/8" THICK WITH A SIZE OF 2-5/8" X 5-1/2". THE BULB, OR LAMP IS NOT SUPPLIED WITH THE KEY.

50 YEAR OLD FLAME PROOF KEY
TYPE J-7-A
Gov't. Order No. 141082 Dated: 1921

FOR SOME 50 YEARS, THE J-7A KEYS WERE STORED IN A REMOTE WAREHOUSE IN THE HUGE BROOKLYN NAVY YARD. IN 1966, THE NAVY CLOSED THE YARD AND THE CITY OF NEW YORK PURCHASED THE PROPERTY. THE KEYS WERE DISCOVERED AT THAT TIME.

THROUGH ALL THE YEARS OF STORAGE, SOME SLIGHT CORROSION AND PAINT DETERIORATION HAS OCCURRED, BUT THIS CAN BE CORRECTED. NEW BOXES HAVE BEEN PROVIDED.

THE BRANCH COMPANY, NOW CLOSED, MANUFACTURED A LARGE VARIETY OF KEYS ALONG THE STYLE OF THE J-7A FOR THE U.S. GOVERNMENT. THE J-5A, MADE FOR THE SIGNAL CORPS, IN 1941, IS THE SAME TYPE EXCEPT FOR THE BULB PART.

RECONDITIONED
CLEANED &
KEYING ARM
FREED

\$45 **J-7A**
PPD



W L JACKSON

909 NE 11TH ST
GRAND PRAIRIE, TX
75050
214-262-7855

for Blaupunkt Sultan 3D radio. Model number unknown, 5 tube AM/FM. Sw. Write Ray Carifio, NALTS, 6014 SW 33rd Street, Miami, FL 33155

WANTED: LIBRARY BOUND volumes of QST, CQ, 73 PRE 1960. ALSO GLOBE SCOUT (WRL), MIKE GRIMES, K5MLG, 3805 APPOMATTOX CIRCLE, PLANO, TX 75023.

WANTED: SCHEMATIC AND INFO on Eico ST 70 amplifier. Gordon Wilson, 11108 — 50 Avenue, Edmonton, Alberta, Canada T6H 0H9.

WANTED: INSTRUCTIONS FOR PACO MODEL 25 IN-CIRCUIT CAPACITOR TESTER RCA WR-50A SIGNAL GENERATOR CRYSTALINER (CRYSTAL MODULES) GENERATOR, GLENN HARTMAN, 5545 DEEP HOLLOW, FAYETTEVILLE, NC 28311.

WANTED — NATIONAL

FOR NATIONAL HRO-50T receiver, original owner/ operator manual, CXO 100/1000 kc. xtal. calib., NBFM-50 adapter, SOJ-3 adapter, coil sets G, H, J, AB, AC. B. T.

Wooters, W5KSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED DEAD OR ALIVE FOR RESTORATION OF NATIONAL HRO COMMUNICATIONS RADIO. OLDER MODEL PREFERRED USING EITHER 57/58 OR 6C6/5D6 TUBES. WILL PAY GOOD PRICE FOR COMPLETE UNITS WITH POWER SUPPLY AND COILS. DAVE MEDLEY, K1GQE, 1450 BAYVIEW HEIGHTS DRIVE, LOS OSOS, CA 93402.

WANTED — PARTS, TUBES, ETC.

INSTRUCTION MANUAL OR TUBE CHART for a Jackson model #648A, TUBE TESTER. Also same for Eico, #666 tube tester. Copies OK. Will pay for expenses. Need cover lid for AK 42 also knurled. Fine tune knob for same. Robert Selpien, 330 E. State, Sycamore, IL 60178. (815) 895-5117.

* WANTED FOR PILOT MIDGET RECEIVER, the following; the brass escutcheon around dial and knob for same. Thank you. — Steve Sideroff, 46 Dutch Lane Road, Marlboro, NJ 07746. Tel. (201) 462-7987.

NEED SET-UP CHART FOR OLDER 4-5-6 PRONG TUBES FOR PRECISION SERIES 10-12 TUBE TESTER. DAN MAURER, 29 SO. 4TH STREET, LEBANON, PA 17042

NEEDED: tube testing valves for Sonora RA-1, DE-1, RE-2, SO-1, SO-2. audio transformer for Eveready model 1, 2, or 3, or Bosch #28. Power transformer for Sonora model 30, 32 or 40. John Swett, 8116 Olmway, Olmsted Falls, OH 44138 (216) 235-1463.

2 DUD XFMR's for model 52 Crosley, 1 dud xfmr for Radiola III, dial scale for model 40-185 Philco, 1 rheostat knob for Paragon type DA-2, 1 type F AK variable condenser. Will buy or trade, State needs. Joe H. Vittitow, 1341 Harrodsburg Road, Lawrenceburg, KY 40342. (502) 839-5444.

CHANNEL SELECTOR KNOB. CHANNEL INDICATOR BEZEL FOR PHILCO PREDICTA. — Joe Cunningham, 917 Lunt Avenue, Schaumburg, IL 60193.

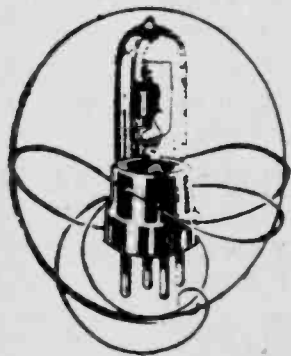
CHROME TUBE CAP FOR NEUTRONOUND BATTERY RADIO. RUSSELL SCHOEN, E. 7340 NIETZKE ROAD, CLINTONVILLE, WI 54929. (715) 823-6744.

Beyond Rider!

**SUPER-HETS
of the
TWENTIES**

The number of super-het circuits offered the home-constructor in the late Twenties was awesome, and there has never been offered the hobby a sole-source of relevant data. Now, in response to a long series of requests D.H. MOORE has created another important contribution to the hobby - "Super-Hets of the Twenties". As with his other vintage radio writings, this massive Monograph combines scarce technical information and broad human interest. Among its contents are:

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- Tyrman
- Ultradyne



- Best
- Camfield
- Cockaday
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- Remler
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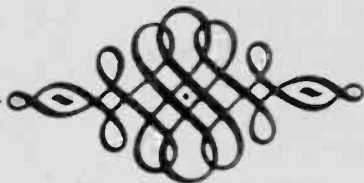
A rather large (200 pages) and lavishly illustrated Monograph is now ready for your further enjoyment of the hobby. A copy may be ordered from either of the addresses listed below, whichever is most convenient for you. The price is \$25,ppd.

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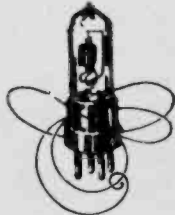
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Jim Lanphear
4062 Oak Point Ct.
Hayward - California
94542



RADIO, RIDER 10 - 22, H. F. BRAMMELL, 24 E. MAPLE, AMERICUS, KS 66835.

ZENITH DETECTOR COIL NO. S-8436 USED IN CH, 10A1, 10A2, 10B1, 10B2. ATWATER KENT MODEL 60 A.F. TRANSFORMER ASSEMBLY. L49B BALLAST TUBE. 45 RPM SPINDLE FOR B5R C129 CHANGER EV/GAME 436. CABINET FOR PILOT TV 37. 3KP4 CRT. ELECTRONICS MEASUREMENT CORPORATION. MODEL 502 SIGNAL GENERATOR, ASSEMBLY MANUAL OR SCHEMATIC. AUDIO INPUT XFMRs FOR SINGLE PLATE TO P-P GRIDS. ANY JUNKBOX PARTS, LITERATURE. ANY EARLY TWO AND THREE PIECE CAR RADIOS, UNITED MOTORS, B.O.P., ETC. ANY OTHER FACTORY CAR RADIOS FROM 30'S - 40'S. ANY SIGNAL SEEKING TYPE CAR RADIOS, MUST HAVE KNOBS. CAR RADIO KNOBS. — ALVIN HECKARD, RD1, BOX 83, LEWISTOWN, PA 17044.

NATIONAL TYPE PSK PRESELECTOR FOR NATIONAL FB7-A RCVR. SW3, FB7 COILS. NATIONAL VELVET-B POWER SUPPLY. PAT STEWART, W7GVC, 1404 RUTH AVENUE, WALLA WALLA, WA 99362.

TUBE SOCKETS— 3-4-5-6 PRONG COMPOSITE. 2-5-6-7 PRONG COMPOSITE. 1-5-7 PRONG COMPOSITE. 4-7-7 PRONG COMPOSITE. JACK S. WALLACE, 5516 GILBOW AVENUE, RIVER OAKS, TX 76114. (817) 732-5189.

COOPER-HEWITT MERCURY vapor bulb. TCBA, RR6, Box 181, Glens Falls, NY 12801

FIXED DETECTOR GRID RESISTANCE FOR ATWATER KENT MODEL 32 AK PART # 8190, ALSO GRID LEAK RESISTOR, AK PART #8190. ALSO FOUND IN MODELS 20c- 30- 33- 35. C. Hoffman, 824 Gordon Street, Allentown, PA 18102. Phone (215) 434-2536.

REPLACEMENT CONE MATERIAL FOR STROMBERG-CARLSON 601-TRF COMPANION CONE SPEAKER. LAWRENCE DE ROSE, 12 WILLS AVENUE, R.D.#1, STANHOPE, NJ 07874.

MACHINES SCREWS TO HOLD PANEL TO CABINET, RADIOLA III AND IIIA, I

NEED TWO DOZEN. ERNEST HECKLER, 1314 N. SPARKMAN, HARTSELLE, AL 35640.

WANTED — BATTERY RADIO CHASSIS AND/OR ANY INFORMATION ON BRUNSWICK RADIOLA PHONOGRAPH, MODEL BR100, PATENT 1923 — DICK ROZNOVSKY, BOX 480, RICHFIELD, OH 44286.

WANTED: CABINET & AUDIO TRANSFORMERS FOR GREBE CR9, ARTHUR HARRISON, 501 ARBOR DRIVE, COLUMBIA, MO 65201. (314) 474-8729.

DIAL TUNING KNOB AND RESET LOCK SCREW FOR A WARDS 62501 TABLE MODEL


EARLY OR UNUSUAL TUBES, tube cans, cartons also early light bulbs pre 1900. Please describe with prices wanted to: Bruce Harbeck, 13408 Westwood Lane, Omaha, NE 68144. (402) 333-9013.

HALLDORSON 3 to 1 audio transformer, copper casing. hard rubber panel 10 x 11 x 1/4. Gordon Wilson, 11108 - 50 Avenue, Edmonton, Alberta, Canada, T6H 0H9.

DETECTOR and AUDIO PORTION of GREBE CR2. Also need cabinet for same.

Most-Needed PARTS

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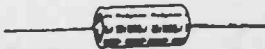
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.22		.87
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