

- Filament Designations Found on all Such Sockets.
 A Fairly Good Receiving Set
 (7) G. Rudolph Thompson, Norfolk, Va., asks:
 Q. 1. Please give me list of parts for a fairly good receiving set.
 A. 1. For building the vacuum tube detector receiver you will need:
 100 to 150 feet No. 147-strand copper wire, for antenna. Weather-proof insulated wire for lead-in enough to reach your set.
 100-ampere lightning switch, or a lightning arrester, or whatever safety device may be required by your local electrical inspector. This must meet the requirements of the National Board of Fire Underwriters if you want to collect insurance on your house in case it is struck by lightning.
 1 vario-coupler, to tune from 150 to 600 meters.
 6 switch points and knob.
 Ground wire, which may be cut from wire purchased for lead-in.
 1 flament rheostat.
 4 storage battery, 6 volts and as many amperehauts capacity as you want to pay for. Smaller ones need recharging oftener.
 1 "B" battery, 22% volts.
 1 pair 2,000 ohm phones.
 1 audion builb.

- pair 2,000 ohm phones.
 audion socket.
 audion bulb.
 grid leak and grid condenser, .00025 micro-farad capacity. Wire for connections should be insulated. Stranded wire has better con-ductivity. The larger it is, the less resist-ance, but don't get it so large and stiff that it is hard to manage. Look at a ready-made set and see how it is wired.
 If you are going to build a set we suggest that you read radio advertisements, secure catalogs, compare goods and prices.

- Simple Hook-up for Reception from "W. J. Z." (8) Paul Novel, Long Island City, N. Y., asks: Q. 1. With a loose coupler, fixed condenser, crystal detector and 2 000 chem shores care,



The Hook-Up of a Loose Coupler With a Detector and Other Apparatus. "A," is the Aerial, "L. C.," Loose Coupler, "D. Petector, "F. C.," Fixed Con-denser, "P," Phones, "G," Ground.

One of the Atlantic Coast Steamship Lines Has Equipped a Steamship Plying Between New York and Havana, Cuba, With a Series of Magnavox Radio Loud-talkers, and the Passengers Have Enjoyed Dancing to the Music Transmitted from "WJZ"—the Westinghouse Radiophone Broadcasting Station at Newark N. J.,—a Distance of About 1,200 Miles, While in Havana Harbor. The Vessel Is Wired With a Special Loud-talker Circuit, so That the Instruments Can Be Plugged in Thru Regular Marine Receptacles. This Circuit Runs to the Radio Cabin on the Ship, and One of the Radio Operators Tunes in the Music from the Broadcasting Station, While the Loud-talkers Spread About the Deck Do the Rest. UR illustration depicts a scene on

diophone music picked up out of the air from the distant broadcasting station, located at Newark, N. J., just outside New York City. This marks a phenomenal and extraordinary application of radiophone music and concerts.

As we see from the picture, several Magnavox loud-talkers are placed about the deck and the wires from each instrument are connected by means of a plug into a socket in the floor or ceiling of the deck. All of these sockets are wired to a common circuit connecting all of them, and the wires then lead to the radio cabin, as shown.

In other words, the passengers who en-joy the dancing have to thank the ship's radio operator or operators for this service, for it is up to them to pick up the broadcasting wave and keep it tuned sharp and steady thru interference and static. This performance is all the more interesting and remarkable in view of the fact that the distance is so great, in the neighbor-hood of 1,200 miles.

No doubt radiophone concerts, such as these, including dance music and other programs, will become quite common on ocean liners during the next few years, many ships now picking up the concerts broad-casted from Newark and other Atlantic coast stations, when far out on the At-lantic, over 1,000 miles from America. By

utilizing suitable vacuum tube amplifiers, any number of loud-talkers can be sup-plied with current from the radio set. It is not so much of a dream after all, perhaps, to think for a moment that tomorrow, perhaps, the ocean traveler will be sup-plied with radiophone music whenever he may desire it right in his cabin, simply by turning a switch mounted on the base of a

small horn device on the wall. A question which many people have asked in regard to such elaborate radiophone reception and amplification, as that here illustrated and described, is as to whether or not regular radio messages from other ships, time signals, et cetera, can be re-ceived without interference with the radio-phone reception. The answer to this question is that with most of the radio receiving sets this is not possible, and that either one or the other can be received at the same time without seriously interfering with the clarity and strength of the radio-phone music or speech. Where it is imperative to pick up a message at the same time that radiophone music or concerts are being received, an expert operator can de-tune the radiophone wave sufficiently to be able to pick up simultaneously the radio telegraph and read the dot and dash signals thru the music at the same time. Of course the dots and dashes will be heard thru the loud-talkers on deck or in the cabin also, but we have often found in our own experience, that when the dot and dash signals are indeed quite strong enough to be read clearly, they will still be weak in the loud-talker so as not to interfere seriously with the music, altho it may be heard

C 1922 by Science and Invention

by those close to the horn. With respect to the time signals, these will be picked up invariably and relayed thru the loud-talkers for the benefit of all within hearing, as the broadcasting stations stop their con-certs about eight or ten minutes before ten in the evening for this purpose

It might be pointed out in this instance that the radio weather reports given out at 10:01 P. M. from the broadcasting sta-tions, are much more correct than those given in the afternoon and evening editions of the newspapers, as radio fans everywhere have undoubtedly learned by this time, for the reason that the 10:01 P. M. weather report broadcasted via radio has been received but a short time before by these stations from the U. S. Weather Bureau at Washington, or other official observation points, while the reports printed in the afternoon and evening edi-tions of newspapers are those received dur-ing the morning hours of that day. It is the proud boast of the weather bureau, so one expert said recently, that they have not made a mistake in broadcasting the weather twenty-four to forty-eight hours ahead, except about once in one hundred daily forecasts. The writer of this article has been particularly impressed, by observ-ing these radio broadcast weather reports himself, and has found this percentage to be about right it would seem. So when you hear the radio man howl out of the amplifier horn Rain Tomorrow! it's no use, old top-chase up your rubbers and the umbrella and lay them beside the hall rack, for you are going to need them in the morning l

board one of the various passen-ger vessels plying between New York and other Atlantic seacoast cities and Havana, Cuba, dancing being enjoyed on shipboard, thanks to ra-

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FIND OF THE MONTH

I recently found and purchased some sets which were collected in this area about five years ago. They are Atwater Kent 35, Crosley Trirdyne Regular, Crosley SISD, Crosley Gembox, DeForest Interpanel, Fada 192A, Grebe CR-12, and MuRad MA-13.

So, I'm glad to have added a few nice sets to my collection.

Thanks. Have a happy holiday season.

> Sincerely, James R. Collings 2218 Woodard Abilene TX 79605

LETTERS

Dear Jim:

Enclosed, is my check for nine dollars to extend my subscription for two years. I think I'm already paid up for longer than I will probably live, but I could not resist the bargain for early subscribers.

Frankly, Jim, I have about the lowest sales resistance of any one you know. I'd buy an alligstor with acne, if anyone offered it cheapenough!

Having spent my life in broadcasting here in Chicago, and having

started with radio in 1922, your magazine is understandably of interest to me. I go back to the early days in broadcasting, and the first BC Transmitter I had any contact with used a WE 212-D Self-excited Oscillator, heising modulated with another 212-D, and a motor generator for a power supply.

Having retired from WGN here. I am an enthusiastic member of AWA, and have a fairly good collection of antique equipment. I now write for a number of smaller publications and technical magazines. Please keep up the magazine, Jim. It definitely fills an obvious need.

> 73 Paul C. Crum, W9LC 6272 N. Cicero Ave. Chicago IL 60646

Dear Jim:

Like your radio and phono newspaper very much. In the December issue page 10 on wood veneers the best place to get them in any quantity or kind is Albert Constantine & Son, Inc., 2050 Eastchester Rd., Bronx N.Y. 10461. I have been buying veneers from them for forty years and they carry everything in the wood or wood veneer line for the hobbyist.

> Regards, Burt Noyes 4 Pinewood Dr.

Stratham N.H. 03885



Editor...Thanks for sending us the information.

Dear Jim:

Enclosed is a check, please renew my subscription for 1977.

I have enjoyed your newspaper for the past 3 years, and every time a new issue arrives, I continue to learn and enjoy.

I have approx. (60) table model radios, ranging from a (1939 G.E.) to a (1921 Federal Jr.).

BACK ISSUES The Horn Speaker

All 10 back issues for 1973...\$8.00 Single issues....\$1.00 each

All 10 back issues for 1974...\$6.00

All 10 back issues for 1975...\$5.00

Later, we should have complete volumes for 1972.

The Horn Speaker

Box 12 Kleberg, Texas

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75145

N.H. 0500 13220-1330 CHILIRAL ATTAINS AND FAITORI SERVICE MARKAL SECULATEDIA, FEVIDED AND reprinted, 225 pages, 300 illustrations which covers everything you need to know about all models, speakers, accessories, 3 volumes, BEST SOURCE SUFFE \$15.00, NEW 1976 RADIO ANTIQUER'S DIRECTORY AND COLLECTOR'S GUIDE SERVICES OF, covers all phases from A to %, over 75 pages, the MOST INFORTANT BOOK YOU CAN ORT IN OUR HORRY, STANDARD COFT \$5.00, all phote in living COLOR (where applicable) \$2.55. IN FOR HORRY, STANDARD COFT \$5.00, all phote in living COLOR (where applicable) \$2.55. LOFEDIA, revised and IN OUR HURMI, STARDARD COTT \$2000, and public and antal other alphabetical order LATEST FIRA MARKET QUARTERIN DIRECTORY covers all markets in alphabetical order throughout U.S.A. and CAMADA, getting bigger than ever, others who bought know throughout U.S.A. and CAMADA, getting bigger than ever, others who bought know \$2,25. MOTES UNLESS OTHERWISE SPECIFIED ALL BOOKS SHIFTED BOOK RATES: For First class ADD \$3.00 per book, Special Handling To 21bs 50%, 2-10 lbs., 70% Over 10 lbs \$1.00 each, some weigh 3 lbs., If in doubt lasve check blank, we will fill-in, refund excess Calif. Res. 65 ST. CAMADIANSS same as USA, NO insurance on AIR, PAYABLE IN US FUNDS, NO STAMPS, ADD \$2.50 for your check exchange rate, SAME FOR OTHER COMPTRIES. U.S. FOSTAL SERVICE now requires a weak for FeC Mall. BL FATE 3 to Londow WF contents to ADD and the service of the se

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Although I am especially fond of the "1930s wood cabinet Superhets," the toughest part of this "old radio" hobby is deciding which one to spend my money on.

I love them all, but unfortunately, I cannot afford them all.

Thanks for a great newspaper that keeps my electrons flowing.

Sincerely,

George P. Kunnath 38250 Lanse Creuse Mt. Clemens, Michigan 18012

Editor ... Write anytime.

Dear Jim:

Enclosed is a check to extend my "The Horn Speaker" subscription for another year per your special offer of \$4.50 before Jan. 1.

In the Dec. '76 issue you mentioned the difficulty of finding veneer for cabinet repair.

Albert Constantine & Son, Inc. 2050 Eastchester Road Bronx, N. Y. 10461

This company is a well established company and I have found them very

satisfactory. They have a nice catalog of both veneers, solid woods and accessories. Their catalog is

in color and they like 50¢ to help pay the postage, well worth it.

VIP Antiques

1467 Sdlier Circles Dr.

Indianapolis, In. 46239

This company has been satisfactory, however I just ordered from an ad so don't know if they really cater to mail order business.

Hope this info will be of use to you.

Best wishes for the coming year. Ray Harland

2602 Mary Lane Escondido CA 92025 Editor ... We are always looking for sources of materials. Noticed that the Constantine source is a repeat, must be good.

Dear Jim:

Please renew my subscription to THE HORN SPEAKER for another year, enclosed payment. I have added to my collection a Fairbanks-morse console AC radio model 8 A. My other hobby is collecting old gasoline engines and I have two Fairbanks-Morse engines.

Another set I found was a "SHOWERS" five tube battery set model 20, Ser. 5710 with a fancy gingerbread panel. This set was made in Hanover PA by E.J.J. Gobrecht Co. in the late 20s or early 30s. Would like to hear from any one that owns or knows anything about them.

Always glad to see THE HORN SPEAKER come. Happy New Year.

Sincerely, William L. Cunningham 4335 Barker St. S.E. Washington, D.C. 20019.

Editor ... Always glad to hear from you.



by Fred L. Davis June 1, 1940

Fred Allen will be heard at the same time as usual in the fall, but on a different network and for a different sponsor. Texaco is hiring Allen to do an hour-long show on CBS at the Wednesday night time he has been occupying for six years. Eddie Cantor replaces Allen for Bristol-Myers in the same time spot with a half hour show on NBC, thereby setting up another potential battle of comedians to attract the listening audience.

BETTY and BOB has been made available on transcriptions for local sponsorship, with General Mills retaining property rights. Starring parts are taken by Arlene Francis, the last networt Betty, and Carl Frank.

Bill Farren, NBC announcer, tells us that the day Germany invaded Holland, Belgium and Luxembourg, and Neville Chamberlain resigned, a network program opened with the commercial announcement: "The biggest news story this week is the opening of the World's Fair of 1940 in New York."

We remember when July 4 was Independence Day. This year the matter of the country's independence is so unstable that the New York World's Fair has disregarded the traditional celebrations and has named July 4 as "Broadcasting Day" at the Fair.

Whether the Gracie Allen campaign for the Presidency on the mythical Surprise Party ticket has caused sponsorial objections to be raised is a question. The face cream makers okayed Gracie's stunt before it started, but now the smart lads think the movement has become a hot potato. Bearing out the suspicion, it has been learned that at the termination of Burns and Allen's contract with Hind's, it will not be renewed.

Hedda Hopper, the Sunkist movie gossiper, has hypoed her mail count to 11,000 letters in one week by the simple expedient of writing in her column and preaching on the CBS air to "keep us out of war."

Young Johnnie Johnston has decided to go west while he is a young man. The baritone troubadour of "Club Matinee" will soon leave the spot where he has built a huge following to seek his fortune in Hollywood. His decision was arrived at through strictly financial reasoning. south which are not represented and the second of the second seco

1936 KCMO ANNOUNCER

WALTER CRONKITE entered the University of Texas at Austin in 1933, and to help pay his way, he worked as a campus correspondent for a newspaper and as a sports announcer for a local radio station. He left school in 1935 to work for the Houston Post. In 1936, he joined KCMO, Kanses City as news and sports editor. The following year, he went with the United Press and worked in Texas. That fall, he broadcast football games for WKY, Oklahoma City. He resigned in 1938 and joined Braniff Airlines in Dallas to do "exploitation" work. He rejoined the United Press in 1939 and worked at various bureaus. He vis

Old Radio easures

There's a rare old radio waiting for you somewhere. Here's how to have year-round fun discovering valuable old sets in your attic, local swap meet or antique barn. You'll enjoy McMahon's fascinating books, truly fine collector's references.



VINTAGE RADIO, 1887-1929: Pictorial story of pioneer days, 1,000 photos, 263 pages. \$10.95 hard-cover, \$8.95 soft.

A FLICK OF THE SWITCH, 1930-50: Fun picture reference of home, military, Ham, professional radio-TV-electronics, 312 pages. \$10.95 hard-cover, \$8.95 soft. RADIO ENCYCLOPEDIA, Gernsback's 1927 classic beautifully recreated, 175 pages. \$14.95 hard-cover, \$10.95 soft.

RADIO COLLECTOR'S GUIDE, 1921-32: Data book with 50,000 facts on 9,000 models by 1,100 makers, 264 pages, \$6.95. 1926-38 RADIO OIAGRAMS: Beitman's classic of 600 models, 240 pages, \$7.00.



Here are the ideal holiday gifts. **ORDER NOW**

FOR IMMEDIATE DELIVERY! CIRCUIT OIAGRAM for any pre-1951 radio: \$3.50. Send model number.

SEND TODAY to Vintage Radio, Dep't D, Box 2045, Palos Verdes, Ca. 90274. We pay postage. Calif. residents add 6%.

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one of the first journalists accredited to American forces after the U.S. entered World War II, and he covered many major battles. He stayed in Europe after the war and established UP bureaus in three countries.

Cronkite returned to the U.S. in 1948 and became the Washington reporter for a group of Midwestern radio stations. When the Korean War started, he accepted a CBS offer, but they kept him in Washington. In July 1950, he was assigned to develop the news department of the network's Washington television station. Thereafter, he was a part of various CES news features and covered many important events. On April 16, 1962, he anchored the first telecast of the "CBS Evening News with Walter Cronkite." Today, his stature as a TV newsman is so well known it would be superfluous for me to elaborate further.

> By Ray Poindexter, Broadcast No. 5

A Small Nickel-Plating Outfit

By J. A. HOLLANDER.

(Continued from last month)

File a clean surface on one of the ears left for connections, and solder a $\frac{1}{4}$ by $\frac{1}{2}$ inch brass or copper bar 9 or 10 inches long (Fig. 3). To the end of this bar solder 4 to 5 feet of flexible lamp cord for connection. The parts of the bar projecting beyond the sides of the anode should be wrapped with 5 or 6 layers of lineman's tape to prevent any possible short circuiting.

Now solder a binding post to one of the ends of 4 or 5 one-quarter inch copper rods, 9 inches long. These are to act as cathode rods.

Solution.

A solution giving the best results consists of as follows:

134 lbs. double sulphate of nickel and ammonia.

3/5 oz. sal-ammoniac.

1 oz. single sulphate of nickel.

3 gal. distilled or filtered water.

The double sulphate crystals should be crushed in a mortar and dissolved in hot water, as heat helps the dissolution.

Sal-ammoniac is a good conductor of electricity and in a plating solution tends to deposit the plate faster.

Single sulphate of nickel gives that bright appearance to the plate so much desired in nicely finished objects.



Both the sal-ammoniac and the single sulphate may be left out of the solution and still get a good plate.

Hard water should not be used under

any consideration, not even when filtered, as it absolutely ruins the plate or gives no deposit at all. Distilled water can not as a rule, be had, so filtered water is the next best and the most economical.

The solution should stand at $5\frac{1}{2}$ to 6 degrees Baume. If too heavy, add more



Fig.4.

water, and if too light, more of the double sulphates should be added till the proper density is reached. Solutions standing above 7 degrees are apt to give a dark grey or black deposit and in some instances none at all. It is a good plan to test the solution before using, as a small amount of evaporation increases the density considerably.

Freparing the Work for the Bath.

If the work is desired to have a high polish after plating, it is to be understood that it must have a high polish before entering the solution.

Also it must be absolutely clean. This is the most important part of the whole process. It must not only look clean, but must be chemically clean. Too much care cannot be taken in securing the total absence of grease and foreign matter of all kinds. A few failures will soon convince one of this. If the work comes out of the bath having a mottled and dirty appearance, and the metal showing through in spots, it is sure to be due to improper cleaning.

String the work on a thin wire and swirl it around in a hot, but not boiling solution of $\frac{1}{2}$ lb. of potash to 1 gallon of water. As soon as the work begins to change color remove and rinse in cold, clear water. If possible, running water should be used. If this is not available, then a large vessel full with frequent changes is the next best thing. Then dip for an instant in a solution composed of one pound of C. P. potassium cyanide to

From MODERN ELECTRICS, January 1911

one gallon of water. Rinse in cold, clear water and hang immediately in the plating bath, twisting the small wires securely about the cathode rods.

Do not allow the work to be exposed to the air any longer than absolutely necessary, as it rapidly oxidizes and consequently the plate refuses to adhere properly.

If, after rinsing, water draws away in places, the work is not clean and should be potashed and cyanided over again. This should be repeated till water clings evenly over the entire surface, only then is the work ready for plating.

Plating.

Connect the anode to the leading out terminal of a rheostat giving small variations, and the leading in terminal to the positive pole of some source of low voltage direct current, say 5 to 6 volts. Connect the cathode rods to the negative pole by a length of flexible lamp cord (Fig. 4).

The flexible connectors are used so that the anode and cathode rods can be shifted, for instance, if there are a number of pieces to be plated, the anode is hung in the middle, but if there is but one piece of small surface, the anode is placed as far away as possible, to avoid discoloring the high parts.

From 2 to 5 volts should be used according to whether a smaller or larger surface is exposed. A six volt storage battery is just the thing. If the work takes on a dull grey or a black deposit, too much current is being used and the work must be taken from the bath and the spoiled plate removed by buffing or polishing. It is useless to attempt to plate over a piece that has once been spoiled without refinishing

A heavier current can be used at first and gradually decreased. 'This gives a foundation of rough plate with a fine plate for finish. The voltage can be tested with a low-reading volt-meter such as is used for testing dry cells.

Work should not be left in the solution for more than a half-hour with a heavy current, because the plate is liable to crack and peel off. Ordinarily, with a heavy current, fifteen minutes is long enough to deposit a fairly durable plate. The smoothest and finest plate can be had by passing a very moderate current for a long time, say an hour and a half.

If too much current is passing, a number of copper rods with the ends bent to form a hook, may be hung on the cathode rods in front of the anode, so as to take part of the current and avoid discoloring the work. These in turn can be used as anodes, but care must be taken not to let the bare copper touch the solution, as it is quickly rained.

After a sufficiently heavy plate has been deposited, remove from the solution and rinse in cold water, then in hot, and dry in hard-wood sawdust after which finish on a soft buff.

With a little patience, and a few trials, one who heretofore had no knowledge of electroplating can turn out just as good a job as an experienced plater. And further, the appearance of the plated parts will certainly repay you for the trouble taken. THIS AD IS FROM A SCRAP-BOOK WHO KNOWS ITS DATE?



THE Edison Phonograph is an unfailing THE Twenty-Four New Records for June are made

THE Edison Phonograph is an unfailing source of real entertainment. Start an Edison anywhere and immediately it becomes the center of interest.

No ear is too critical and no pocketbook too limited to enjoy it.



HE Twenty-Four New Records for June are made up of some of the cleverest song Records and som of the best instrumental Records that the wel known artists on the Edison staff have ever made for u Hear them at any Edison store today.

Thomas a Edison National Phonograph Company, 11 LAKESIDE AVENI ORANGE, N. J.

THE LOOKS OF RADIO'S FUTURE IN 1932



A. D. ANDREA Radio Dollar Value to Rise By F. A. D. Andrea President, F. A. D. Andrea, Inc.

"HE remarkable economic trend in radio which has manifested itself during the past two years, resulting not only in an improvement in the appearance and performance of the higher-priced sets, but also offering the purchasing public substantial increase in dollar value on lower-priced sets, will unquestionably continue to be a factor in the industry.

This past trend, however, will be modified substantially by the elimination of the extreme low-price craze which has resulted in considerably inferior products being placed on the market, and the so-called lower price range will show a substantial advance in the dollar value of the unit sale, accompa-nied of course by substantial improvement in appearance and performance.

Tubes First, Condensers Second in Radio By William Dubilier Dubilier Condenser Corp.

R^{ECENT} developments in the condenser industry indicate that the condensers have found their place in the electrical sciences and arts as well as radio.

The electrical art divides itself into three sections: capacity, inductance and resis-tance. Devices developed during the last fifty years have mostly utilized resistances or in-ductance or both. Only recently has ca-pacity begun to take its place, seriously, with inductance and resistance.

Condensers are being used extensively with motors. Condensers are being used exten-sively in furnaces and in power-factor cor-rection. With the improvements made by our organization recently, capacitators using different types of dielectric have eliminated the doubtful manufacturing factors which have made large production unprofitable and unstable in the past. Mica condensers are used in practically

Mica condensers are used in practically every broadcasting and radio station of the world. It is the most important develop-ment, next to the tube, that made the pres-ent broadcasting possible. Without the de-velopment of the mica condenser, present types of broadcasting would have been im-practical and probably impossible. It is the development of the condenser that made the development of the condenser that made the a.c. set practical, for without it smoothing would have been impossible, and if the older types of units were utilized the expense would have been prohibitive.

Future Trends in Receiving Set Design By Ray H. Manson Chief Engineer Stromberg-Carlson Telephone Mfg. Co.

ROM the standpoint of overall performance, broadcast receivers of the near future will not be greatly improved over the best designs of the past year. New tubes, announced this spring, will, however, allow for more efficient circuit design. Class "B" amplification (push-pull audio) will allow greater output, but this system presents some unsolved problems which require further study before it can be adopted for general use in a.c. electric sets. Twin speakers, allrange sets or converters, new designs of automatic phonograph units and "concealed" receivers, with arm-chair control, will be featured this year. The radio public will get more for its money, although quality of per-formance will be determined by the price classification as in the past.

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R. H. MANSON



E. K. COHAN

Vertical Broadcast Antennas By E. K. Cohan Technical Director, Columbia Broadcasting System

NO longer are the double latticed-work steel towers, which dot the country

from coast to coast, exclusively symbolical of a broadcasting station. Since the middle of 1931 WABC, the 50,000-watt key station of the Columbia Broadcasting System in New York, has made radio news through the exclusive use of a new type of antenna for broadcast transmission purposes: a single vertical steel mast, 7 inches in diameter at the base, 27 feet in diameter at a height of 280 feet, and 665 feet high, over all.

After many months of practical expe-rience with this radical departure from conventional antenna design, the excellent re-sults and increased efficiency obtained jus-tify the prediction that the single mast vertical antenna will become the symbol of the modern broadcasting station.



C. F. JENKINS

Television Perfection Increasing By C. Francis Jenkins Television Pioneer

TELEVISION, like all new arts, must of L course have its ups and downs during its development period. Fifteen years ago, in my early work on motion pictures, I rec-ognized a fixed source of light which would, when shuttered by a slide or a film at a speed fast enough to deceive the eye, be the ideal system for the projection of moving pictures on the screen.

Today, I believe the same principle will eventually be used to establish television, namely, to shutter a local fixed source of light with a slide whose density is in proportion to the picked up, transmitted tele-vision picture. There is much to be accom-plished before this can be an actuality, and in the meanwhile the lens disc, cathode rays, all offer methods of approaching the ideal of television broadcasting.

I look for a general increase in the perfection of television offerings during 1932, with confidence that a television service, when properly organized, will open up various and many entertainment, educational, political and commercial avenues of prog-ress that can at present be only dimly realized.



E. H. SCOTT

Foreign Broadcast Reception By E. H. Scott President, E. H. Scott Radio Laboratories, Inc.

UNDOUBTEDLY this fall there will be many changes in radio receiving sets as the public now know them. The most important development will, I believe, be in the designing of receivers for the reception of foreign broadcasting stations as well as domestic broadcasting stations. That is, sets that will tune from 15 to 550 meters.

I also believe that, although the tone of the majority of the sets available today is good, this will be still further improved by those manufacturers who in their engineering researches are studying the acoustical properties of the speaker, amplifier and console as a whole.



A. H. LYNCH

Short-Waves, Television to -Be Important Sales Factors By Arthur H. Lynch Merchandising Counsel

THERE is no question whatever but that short-wave transmitters, receivers and television developments of all kinds will continue to provide the novelty which, in my mind, has always been an extremely impor-tant sales factor in the radio business. There is no question about the radio

business being temporarily chaotic. The mortality of radio companies has brought about a very serious reduction in price. Good radio receivers and accessories of most reliable manufacture are now obtainable at prices which are ridiculously low. In most cases, the present prices are below the actual cost of manufacture. This condition cannot exist for long. By next fall the entire indus-try should be purged of a great many of its parasites and be on a much more even keel. Radical changes in our merchandising methods as well as economies in manufacturing, distribution and collections, are bound to be important trade considerations.





WILLIAM DUBILIER

EDISON AMBERGIS AREADS are the new records that play twice as long as the regular Edison Records.

This is not done by making the Record larger or longer, but by engraving more than twice as many lines to the inch as on the regular Record.

Thus Amberol Records can be used in the standard sizes of Edison Phonographs by the addition of a simple attachment or gear.

These new Records

not only play longer than any other Record now made, but they play better, their tone quality being richer, clearer and more delicate than has been possible in the past.

To play Amberol Records on your present Phonograph requires two attachments a change gear and a new reproducer.



Your dealer has these attachments, will put them on your Phonograph at a moderate cost, and will explain them to you. 7

We will be glad, however, to send to anyone, a booklet describing the new attachments, describing the Amberol Records, giving a list of the music now available

on these Records, and giving all the other information necessary to make it possible for you to get more than twice

as much enjoyment out of your Edison Phonograph as you are now getting.

NATIONAL PHONOGRAPH COMPANY 33 Lakeside Avenue, Orange, N. J.





The AK 10

ATWATER KENT MODEL 10 1923

TYPICAL "BREADBOARD" RADIO

Ad from RADIO NEWS, December, 1925



Why Take It Out in Envy?

Why not get the stations your friends say they are getting?

The Key to long range reception is



Used with-or without -outside antennae.

Ask your dealer. If he hasn't stocked it yet, we will ship direct, express prepaid. Specify set with which it is to be used and send dealer's name.

Write for 12-page Descriptive Diagrammatic Aero-Loop Booklet. Your copy Free.

SCOTT SALES COMPANY National Distributors 443 South San Pedro St. Los Angeles, Calif. Utt-Williams Electrical Products Co. W Santa Ana, Calif. ACAEL

50% Discount to Dealers Direct Factory to Dealer Plan Allows You Jobber's Profits— We manufacture and sell to dealers at lowest wholesale prices. American Beauty set above just one of dozens of attractive new radio numbers proved satisfactory by tests in thousands of homes. American products build confidence, regular customers, big repeat. Outsell and outdemon-strate all competition. Wholesalers of Over 225 Nationally Advertised Lines Authorized distributors for over 225 nationally Advertised Lines Authorized distributors for over 225 nationally advertised lines. Big stock always on hand. You are assured shipment when you want it. Three hour service. Everything in Radio for less. Dealers write today for 112-page catalog just off the press. Get your name on our list for valuable monthly mail-ing. Keep in touch with the latest and best. Get prices that make you profit. Amazing offers will delight you. CATALOG EVERY MONTH monthly mailings. AMERICAN Name..... RADIO MFG. COMPANY Address..... 1402 McGee St., Kansas City, Mo.

Ad from RADIO NEWS, December, 1925

City State



NOTICE PAPER PRICE INCREASE SUBSCRIPTION RATES FOR THE HORN SPEAKER, AFTER JANUARY 1, 1977:

New rates after January 1, 1977: \$5.50 One year + + + Special rates for one year (mailed in envelope) First class.....8.50 Foreign Air Mail.....16.00

on the Air **Club** News

INDIANA HISTORICAL RADIO SOCIETY

INDIANAPOLIS

Second Annual Mid Winter swap Meet and Flea Market of Old Radio gear will take place at The Indiana Vocational College, (Ivy Tech) 1315 E. Washington Street Indianapolis (just east of down town on US 40) WHEN-Saturday Feb. 26 at 11a.m. Every one asked to bring extras for sale or trade. Plenty of indoor space with convenient space to parking lot off street west of building. Business meeting at 1 p.m. See you at Indy.

Following are some clippings of names and addresses of regional radio clubs. If the addresses need to be brought up to date, please write The Horn Speaker.

We do not have any kind of an address for The Northwest Vintage Radio Club.

Ask your secretary or publicity officer to send us information about your club.

THE BUCKEYE ANTIQUE RADIO AND PHONOGRAPH COLLECTORS CLUB , 490 Mineola Ave.,

Akron. Ohio 44302.

SOUTHEAST?

BRISTOL ANTIQUE RADIO KLUB John D. Alley, 48 Judson St., Reynham, Mass. 02767.

The Mid-America Antique Radio

Club 2301 Independence Ave., Kansas City, Missouri 64124, Phone: (816) 211 6796.

THE CALIFORNIA HISTORICAL RADIO SOCIETY

Fourth Street, San Jose, California 1103 North

Southwest Vintage Radio and Phonograph Society, P.O. Box 19406, Dallas Texas 75219. ROCKY MOUNTAIN CLUB Theed an address

> Tudor Rees (Vintage Services) 64 Broad Street, Staple Hill, Bristol, BS16 5NL, Great Britain Telephone: (0272) 565472.

Oldtime Announcers Club, P.Q. Box 1174, North Little Rock AR 72115.

Combined Television and Broadcast Receiver Description-A combination receiver that should have popular appeal to all types of radio enthusiasts. This attractive cabinet of upright design contains a short-wave



chassis to receive television signals and a superheterodyne receiver to provide reception on the broadcast wavelengths (200-550 meters). The television screen measures 8 inches by 7 inches. A lens scanning disc driven by a synchronous type motor and a Taylor neon arc lamp are employed to pro-ject the television images. *Maker* — Trav-Ler Manufacturing Corp., 1818 Washington Ave., St. Louis, Mo.

RADIO NEWS FOR JUNE, 1932

Television Receiver and -Radiovisor

Description—The table type model JD-30 eight-tube receiver shown in the accompa-nying illustration has a wavelength range of 80.to 550 meters. The radio-frequency tuning circuit is of special design to provide



broad-band tuning for television signals and the required selectivity for reception on the broadcast band. The audio-frequency system is said to provide uniform amplification at all frequencies from 20 up to 30,000cycles. The following type tubes are uti-lized: four -24 type, one -27 type, two -45 type and one -80 type. The cabinet mea-sures 21 inches high by 12 inches wide.



The second illustration shows the Jenkins model R-400 projector type television radio-visor. It comprises a 60-line, lens type

Thomas A. Edison a "Radio Fan"

A HOMAS A. EDISON has followed the lead of the several hundred thousand citizens who have armed them-selves with radio receiving sets, so as to snatch radiophone speeches, music, weather reports and time signals from the obliging ether, which permeates everything every-where, so scientists tell us. This accounts for the fact that the radio waves travel right thru the brick wall of a building, so if there were no well there at all. The as if there were no wall there at all. The radio waves pass right thru our bodies from hundreds of stations everywhere all day long, if we but knew it, but thanks to a wise Creator, our senses do not regis-ter the passing of these waves thru our body cells

body cells. Radio is not new to Mr. Edison, for he was one of the very first to become interested in the wireless transmission of telegraph dot and dash signals way back in the 80's, when he installed an electro-static radio telegraph scheme on a train and tried it out. There was not any great enthusiasm over this stunt, which worked all right, but did not seem to possess any great future at that time, for the few people who did travel on railroads would not bother to spend the money to talk from the moving train to a land station. The transmission was effected by induction between metal strips installed along the roots of the train and a parallel wire carried on poles alongside the track.



Thomas A. Edison has Become a "Radio Fan" at Last, and He is Here Seen Busily Tuning to Pick up a Radio Concert Being Transmitted from "W. J. Z.," Newark, N. J. Mr. Edison Hears All the Eastern Stations, as He Has a Good Sized Aerial Connected with it. Note that Mr. Edison is Using One of His Latest Audion "B" Storage Batteries. Signals Have to be Specially Strong for Mr. Edison to Hear Them, as He is Quite Deaf.

Science and Invention for May, 1922

scanning disc with motor driving equipment, a fixed mirror, a crater type lamp and a ground-glass screen. The attractive cabinet containing the apparatus measures 24 inches high by 16 inches wide. Maker—Jenkins Television Corp., Passaic, N. J.

RADIO NEWS FOR JUNE, 1932

Low-Boy Console Receiver

Description—This inexpensive four-tube superheterodyne console set—the "Bonni-boy"—is equipped with a full-floating mov-ing coil dynamic speaker and a balanced, image suppressor pre-selector, to eliminate double-spot reception. The circuit makes use of a -24 type tube as an oscillating detec-

DISPLAY ADS CAN BE CHEAPER THAN MAILING LISTS

YOU ARE THE ONE WHOM WE WANT TO HELP

LET US DO THE MAILING

DID YOU KNOW THAT FOR ONLY \$50.00 YOU CAN BUY ONE FULL PAGE AD 10-1/8" X 13-3/8" THE EQUIVALENT OF SENDING IN POSTAGE ONLY 385 PIECES @ 13¢ EACH (NOT EVEN COUNTING THE COST OF PRINTING, ETC.)

1/2 PAGE IS \$25.00 6-5/8" X 10-1/8" or 5" X 13-3/8" THE EQUIVALENT OF SENDING ONLY 192 PIECES @ 13¢

1/4 PAGE IS \$12.50 THE EQUIVALENT OF OF SENDING 96 ENVELOPES

ADS MUST BE GOOD ENOUGH FOR OFFSET REPRODUCTION EXTRA CHARGES IF AD DOES NOT FIT PURCHASED SPACE.

> THE HORN SPEAKER 9820 Silver Meadow Dr. Dallas TX 75217 (214) 286 1673



tor, one -35 multi-mu type tube in the intermediate-frequency stage, one -47 pentode type tube as a second detector and amplifier. The -80 type tube is used for rectification. The dimensions of the cabinet are: 35 inches high by 201/2 inches wide by 121/4 inches

deep. Maker-The Crosley Radio Corp., Cincinnati, Ohio.

RADIO NEWS FOR JUNE, 1932

Classified ad rate: 6¢ per word. Photo ads: \$2.00 extra.

Deadline: 20th of the preceding month.

PHOTO ADS ONLY \$200 EXTRA DEADLINE IS THE 20 TH

MISC.

PROFESSIONAL CW operators, retired or active, commercial, military, Gov't, police, etc., invited to join Society of Wireless Pioneers, W7GAQ/6, Box 530, Santa Rosa CA 95402.

"RADIO ACE," a radio magazine devoted to wireless and early broadcast eras. Contains interesting articles written by collectors,



articles published in early radio magazines, lots of reprints of famous radio ads, and a classified section for buying or selling radio and electronic items. Subscribe at \$7.50 per year for ten issues. Mail check or money order to Radio Age, 1220 Meigs Street, Augusta, Georgia 30904.

FOR SALE OR TRADE

FOR SAIE: 4-Band AM - Bosch Radio, AC, 1930 - 1932, good condition, works fine. 22" high cabinet, 16 X 10 inch. G. Henderson, Route 4, Box 13205, Weatherford TX 76086. (817) 594 0314.

NEW LIST will be available on early radios and radio collectibles in a short time. SASE for list. Burt Noyes, 4 Pinewood Dr., Stratham N.H. 03885.

FOR SALE: Jefferson tube re-juvenator, 1927 \$25; 100A Radiola Speaker, \$25; Majestic "B" eliminator \$30; Hickok jumbo bench tester, about 1938 \$25; 1925 rheostat, new original box \$4; AK model 44, very clean \$60; 1928 QST's, clean covers \$2.00 each; Radiola 17 brass Escutcheon plate \$3.00; many other parts, phonograph, radios. Send SASE for list. Floyd Paul, 1545 Raymond, Glendale, California 91201.

BID ONLY: Set of Riders 1 to 22. Very good to excellent. Indexes 1 to 10, 1 to 15 and 16 to 22. Also 1 to 5 abridged. Write or call Carl L. Elkins, 1701 Woodland St., Nashville TN 37206. Phone 615 226-0651.

FOR SAIE: We have many hours of quality old time radio programs from late '20s to mid '30s. Fun to play the actual old programs thru the horn speaker -- just like back when. Custom made tapes any method. Blalock's Sound Library, 609 Blue St., Richland, Wash. 99352.

WDll Adaptors, use UX199, 120, VT24. No wiring changes, Radiola III's battery hook-up included \$5.25pp., 2 for \$9.25. Keith Parry, 17557 Horace St., Granada Hills CA 91344.

FOR SALE: WD & 99 TUBES X99/20-\$5. V99/20-\$7. WD11-R-\$10. Send SASE for details. Hanson, 3403 E. Broadway, Long Beach CA 90803.

FOR SAIE: Solid-stage power supply provides most needed "A", "B" and "C"voltages. Send SASE for special sheet. G. B. Schneider, 6848 Commonwealth, Parma Hgts, Ohio 14130.

OFFERING a choice of over 50 different factory built crystal sets for trade on early wireless equipment. Guy Martin, Box A, Azusa, California 91702.

\$1.00 for the newly published booklet "A Pocket Guide to Antique Radio Collecting." Antique Radio Press, Box 42, Rossville IN 46065.



FOR SALE OR TRADE



FOR SALE: 10" Crosley - has RCA 630? chassie. Other old 3", 5" and 7" televisions \$50.00 up. Grebe Syncrophase, AK 20, "cathedrals" and other radios. Arthur, 925 Starlite, Grants Pass, Oregon 97526. 503 1476-1585. Wanted: Horn phonographs.

FOR SALE OR TRADE: Old radios for small gasoline engines SASE for list & prices. W. L. Cunningham, 4335 Earker St., S.E. Wash., D.C. 20019.

FOR SALE: Repair phonographs (many parts, etc. available). Jerry Madsen, 8115 Emerson South, Minneapolis MN 55420.

WANTED



WANTED: Outside horn phonographs, crystal sets, radio horns, early battery radios, "cathedrals," old telephones, 1930s televisions and music boxes. Any quanitys. By Chuck Seidel, collector since 1951 pictured above. See page 301 "Flick of The Switch." Now living in Oregon at 925 Starlite, Grants Pass, Oregon 97526. Or call Chuck for immediate commitment 503 476-1585. WANTED: Coin operated & pre-1900 phonographs (all parts), all advertising items, etc. Jerry Madsen, 8115 Emerson South, Minneapolis MN 55420.

WANTED: Pre-1930 radio, electrical, telephone, telegraph sets, parts, books, magazines, catalogs, service manuals, schematics etc. Bill Nangle, 761 No. 29th St., Milwaukee, Wis., 53208.

WANTED: Any radio fan magazines. Also, any radio magazine with commercial broadcast or star information. Examples - "Radio Guide, Radio Stars, Radio-TV Mirror," etc. Also "Photoplay" magazines. 1 or 100. Fred L. Davis, 5106 Skippy Street, Memphis, Tennessee 38116.

WANTED: Most anything to do with Automotive Radio 1929-1960. Wibrators, literature, complete radios, knobs,etc. Please describe and price in first letter. Marv Roth, 14500 JaBelle, Oak Park, Mich. 48237.

WANTED: Scott, McMurdo Silver, Lincoln, and other classic receivers. Also pre-1930 battery sets, speakers, mikes, etc. J. E. Cunningham, 23W 675 Ardmore, Roselle, Ill. 60172.

WANTED: GONIOMETERS - similar to Variometer but with two split "stator" coils (at right angles) and one "rotor." Old or new, incomplete or rewindable - want to use for low frequency and BCB listening. Bob Lamb, Box 454, Leander TX 78641.

WANTED: Service manual and schematic for Dumont Oscilloscope model 327, serial No. 2XO3. This is the large professional Scope, Scope uses tubes and has printed circuits. Will pay Top Dollar. Ralph G. Maddox, Purgitsville W VA 26852.

WANTED: Hickok model 540 tube tester or illuminated meter from model 540. William Shibler, 5899 Barnes Ave., X Bethel Park PA 15102.

WANTED: One good audio transformer for Radiola III (Canadian). Atwater Kent 55 (Marly) tuning control. Darcy Brownrigg, Chelsea, Quebec JOX INO Canada.

WANTED: TUNING BEZEL (glass only) for RCA 97KG (1938) console. Quote price to Steve Andersen, 5175 Brooks Circle S.E., Prior Lake, Minnesota 55372.

WANTED: Speaker for Zenith model VII. George W. Byrd, Sr., 14 N. Bridge St. Highland Springs VA 23075.

WANTED: A.K. Model 30 Cabinet. E. Drake, Box 38, Raynham, Mass. 02767.

WANTED: Variable capacitor for Tuska 301 Jr. will buy chassis or trade for same. Ronald F. Hill, 386 Roosevelt Ave., Lyndhurst N.J. 07071.

WANTED: AK Coupled circuit tuner #3752. Have items to swep. Bob Lane, 2301 Independence Ave., Kansas City MO 64124.

