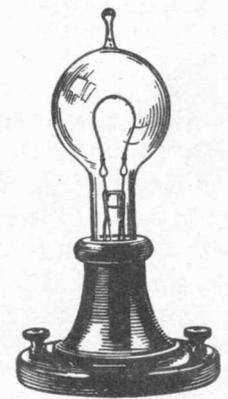
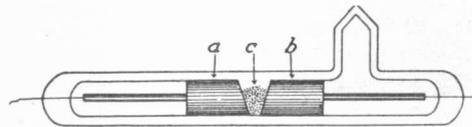


THE NEWSPAPER FOR
THE HOBBYIST OF VINTAGE
ELECTRONICS AND SOUND

THE HORN SPEAKER



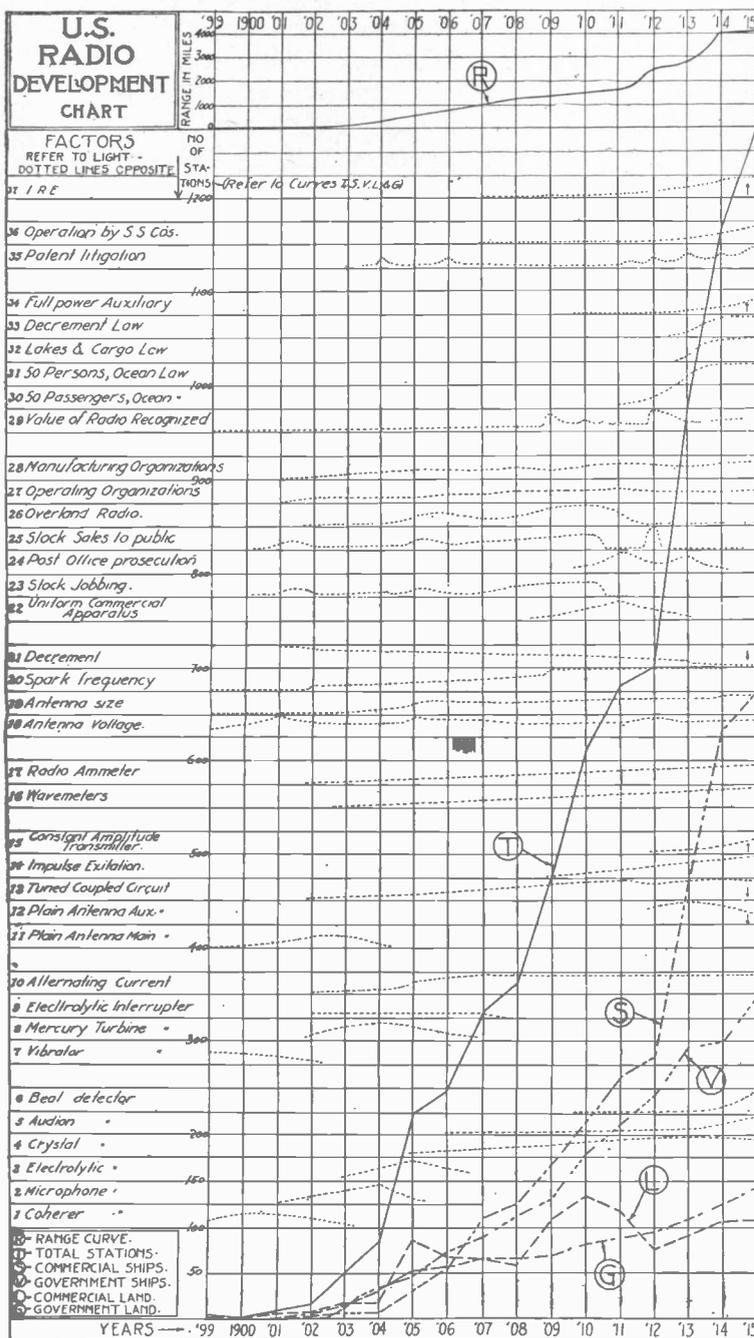
Edison's first incandescent lamp



COHERER
A, electrode; B, electrode; C, filings.

FOUND BY RADIO

By PIERRE BOUCHERON



HOW WIRELESS DEVELOPED

One of a number of charts presented by Mr. Marriott in a paper published in the *Proceedings of the Institute of Radio Engineers* for June, 1917, showing graphically the rise and decline of the various radio factors. For example, the electrolytic detector, No. 3 in the charts, came into use about 1902, was the leading detector about 1905 and then gave way to crystal detectors, No. 4

Dallas Collectors

Dallas collectors liked their October meeting so well that they are going to hold another meeting on November 23, 1974 at the same place and time, Electronic Center, 2929 N. Haskell in Dallas about 7 p. m.

At this location there is room to sell, swap or exhibit your phonographs, radios, telephones, etc.

Collectors, Bob Sullivan, John Rawlins, Walt Jackson, Clarence Johnson, June Fuett and Alan Cobble participated in last month's actions of the Dallas antique phonograph and radio group.

ONE of the most romantic stories of the power of radio is the story of the finding of Cleo Archer. In January, 1920, Lester Archer was a young radio amateur living in Toledo, Ohio. This was before the day of widespread radio telephone broadcasting. With his radio set using the Continental Morse Code this young man accomplished in a short time what his mother, lawyer, and private detective agencies had been trying to do for thirteen years. At the age of five, Cleo Archer, Lester's sister, had been secretly placed in the Allen County Children's Home of Ohio by unfriendly relatives. To find Cleo became the life aim of young Archer and his mother, Mrs. Dorothy Archer, and to this end, they visited other cities and towns in a vain search, meanwhile conducting a legal battle to compel the home authorities to divulge Cleo's whereabouts.

In 1910, this young man, then but a boy in knee pants, became interested in amateur radio, and in a short time he had done what many thousand boys have since duplicated; erected a complete sending and receiving station enabling him to converse at ease with local enthusiasts. For the next few years he spent a great deal of his spare time experimenting and improving his installation so that he was able in 1920 to send as far as 1,000 miles with his home-made transmitter, as well as to receive from the long distance high power stations at Nauen, Germany; Stavanger, Norway, and Lyons, France.

In talking, or rather telegraphing, through the ether, Archer's radio acquaintances reached considerable proportions, until they included many amateurs from neighboring states. The greater portion, of course, he had never seen, but they nevertheless all belonged to the great fraternity of the ether. One of these radio friends was Mrs. Charles Candler, of St. Marys, Ohio, who, with her husband, operates the powerful amateur station "8ZL" now well known throughout the United States for its long distance records.

One evening of January, 1920, young Archer was "talking" with Mrs. Candler in the comradery which radio boasts as its very own, when he conceived the idea of asking for her cooperation in broadcasting the "call" for his sister, Cleo. With the aid of the multitude of amateurs within the reach of "8ZL," Mrs.

Candler thereupon offered to transmit a general message bearing the girl's description and asking for information regarding her whereabouts. The first radiogram of this nature was sent late in January and was, of course, picked up and relayed by hundreds of other amateurs throughout the country who were only too willing to help in the search. Archer, meanwhile, sat night after night at his receiving set listening for a possible encouraging reply. Weeks passed and it began to look like a hopeless task when one evening, the faint call "8KV" (Archer's registered call signal) came from another amateur located at Van Wert, Ohio. Following this call, came some words hardly discernible, so faint were they, and in which young Archer was able to distinguish the words "your sister." Late at night of the same day, when most amateurs had closed for the night and local interference had subsided, Archer was again able to establish communication with the Van Wert station and was informed that a young girl answering the radioed description of his sister was living at the home of a near-by farmer at Rockford, Mercer County, Ohio. Moreover, this amateur flashed back that he had been trying to reach Archer for the past two weeks but without success, owing to the limited range of his sending equipment.

Needless to add, it did not take long for Archer and his mother to investigate the radioed report. Much to their surprise and joy, the report proved correct and the girl was recognized instantly as the long lost one.

The story of Archer and his unique use of the ether is indeed an achievement to amateur radio of this country. To-day, with our great and far reaching radio telephone broadcasting stations throughout the country, we have at our disposal, probably, the most effective and inexpensive means of locating absent ones yet devised, and as the fame and worth of radio spreads far and wide it is quite reasonable to expect police officials to resort to its use for a multitude of purposes, whether for seeking the whereabouts of lost ones or for hunting criminals.

RADIO BROADCAST, May 1922

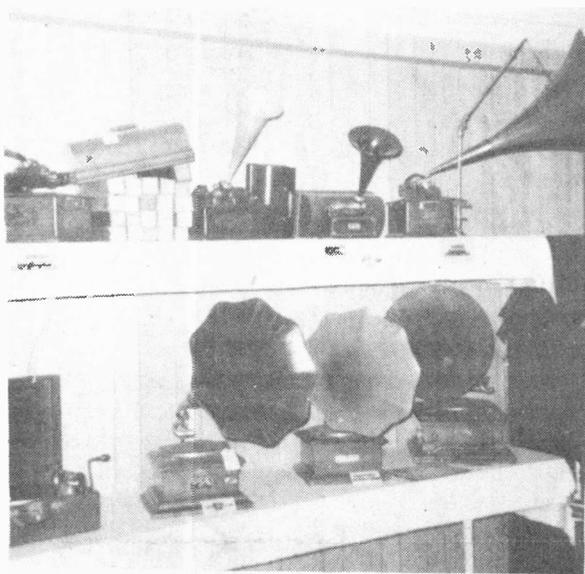
THE COLLECTION OF OLD OBJECTS PRESERVES THE REALITIES OF THE PAST

LETTERS

EDITOR'S MAILBAG

Recently I had the pleasure of visiting U. S. A. of Yesterday, on US Hwy. 27 in Dundee, Florida. I particularly enjoyed their "Horn Room". Morning Glory horns everywhere and all in perfect condition. If you visit Florida on vacation why not make a stop to see this museum.

Larry V. Flegle
1004 E. Powhattan
Tampa, Fla. 33604



Dear Jim,

Thank you for printing my letter. I have received many replies on the V. T. tube cross reference list. If you have room please extend my appreciation to all the people who sent me lists. It is nice to know that there are so many collectors & hobbyist that would take the time to help. In my opinion THE HORN SPEAKER is an asset to all people interested in ancient radio.

Sincerely,
Bruce Harbeck
P. O. Box 1172
Sioux City, Iowa 51102

THE RESTORATION

A demand for more information on the restoration of phonographs and radios is growing. Many readers say that they are inexperienced in bringing the oldies back to original condition.

How to do it articles with photographs are being prepared to help the beginners and discuss problems with the experts.

The best method of stripping is scheduled for a future issue as well as more technical information such as given below:

Kind of tube.....	UV-200	UV-201A	WD-11 & 12	UV-199
Battery used.....	Storage	Storage	Dry	Dry
Number of cells.....	Three	Three	One	Three
Kind of filament.....	Tungsten	Alloy	Coated	Alloy
Filament voltage.....	5.0 volts	5.0 volts	1.1 volts	3.0 volts
Filament current.....	1.0 amps	¼ amps	¼ amps	1/16 amps
Rheostat for 1 or 2 tubes.....	2 or 6 ohm	6 ohm	6 ohm	30 ohm
Rheostat for 3 to 5 tubes.....	Not used	2 or 6 ohm	2 ohm	10 or 20
Plate voltage detector.....	15 to 25	20 to 45	20 to 45	20 to 45
Plate voltage amplifier.....	Not used	20 to 100	20 to 80	20 to 80
Use as detector.....	Best	Good	Good	Good
Use as audio amplifier.....	Not used	Best	Good	Good
Use as radio amplifier.....	Not used	Good	Poor	Best
Color of filament burning.....	Bright	Dim	Very dim	Dim
Color of glass.....	Clear	Silver	Clear	Silver
Amount of vacuum.....	Fair	Highest	Highest	Highest

All the Features of Five Kinds of Tubes Are Listed Here

MORRIS N. BEITMAN THE RADIOMAN WHO HELPED THOUSANDS

By Brent Dingman

Anybody who has been in the radio industry or associated with it the last 40 years is familiar with Supreme Publications. You have seen their ads in all the early radio publications, used their books and even completed their radio course. Most have seen the name M. N. Beitman on all the publications, but not many users have heard the personal success story of how Morris Beitman not only started Supreme Publications, but has helped thousands like myself and two friends. Each one of us not only made it our career, but help further our vintage radio hobby.

In 1950 I was a lad of 11-years-old and with the help of Glenn David Bergland, age 8, we built our first telephone and telegraph systems out of tin cans and green-cotton-covered wire wrapped around nails. Dave's dad was an electrical engineer (pass national president of REA) and had a large workshop and technical library in the basement. This was nice because I had neither, so guess where we spent our time, Dave knew a lot, because he had been tinkering around since he was 6. I was the student and after these two projects Dave handed me the 1926-38 Volume 1 Most-Often-Needed RADIO DIAGRAM MANUAL by Morris Beitman and the radio course. He told me to study it, I was ready for tube radios. It paid off of Dave, he is Doctor Bergland, Department Laser Head at Bell Labs. Another friend collector Alan Douglas of Mass. related to me how Volume 1 was instrumental in helping him the same way. Al was given an Atwater Kent Model 20, although the M20 was not listed, it was very similar to the Model 30 and he got it to work. That book was all he had until he really started collecting in 1965 and graduated as an engineer. I know there are a lot of persons who read this and have similar career stories, so thank you, Morris for still publishing these books. Who wants to wade through a 15,000-page set of J. F. Riders and a ten-foot-shelf of Howard Sams Folders, they quit publishing their old radio material long ago?

Mr. Beitman started his radio engineering, teaching, servicing and writing in the late 1920's. He wrote articles for magazines on radio and in the depression there was no payment, only advertising space, so he prepared some booklets and sold them in this space. In addition to this he worked for several important manufacturers...Old Belmont, Stancor, Allied Radio, Radolek (remember?) and Lafayette when they were called Radio Wire Television. He prepared a simple radio course and sold it locally and by mail order for \$1.95 giving them a final exam and diploma. Do any of you have one? He helped thousands get into radio on a shoe string.

Morris taught from 1939 through 1941 vocational classes in the Chicago

Continued on page 4

NEW YORK, OCTOBER 25, 1884.

THE THOMSON-HOUSTON EXHIBIT AT THE INTERNATIONAL ELECTRICAL EXPOSITION, PHILADELPHIA.

Visitors to the Exposition, upon entering the main gate and then turning to the right, had their attention attracted, before they had proceeded far, by a multitude of powerful arc lights suspended above a raised and richly carpeted flooring. Here were displayed a series of finely wrought mechanisms, from an exposed core of a dynamo to the perfected machine. This was the headquarters of the Thomson-Houston Electric Company, of Boston, Mass., which of late has become widely known for the efficiency of its apparatus and the business-like thoroughness of its system.

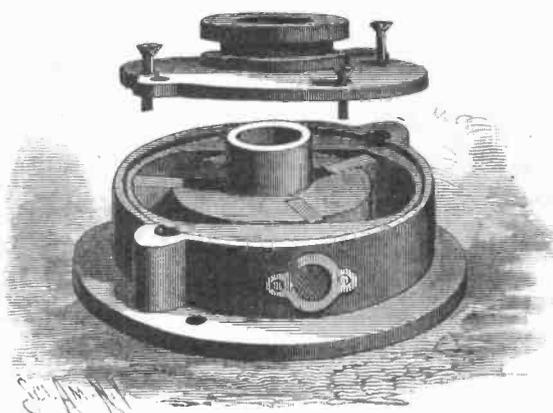
In the general exhibit this company had five dynamo machines in constant action, two having a capacity of 30 arc lamps, two more of 12 lights capacity, and still another of 6 lights. Besides these there were models of the unfinished Thomson-Houston dynamo, so arranged that the parts could be inspected, and other specimens of the latest improved type.

To those who had the time and inclination to attentively study this exhibit—and there were many such—conclusive evidence was presented of its possession of novel and striking features when compared to other systems of the same type. It was noticed that the hissing and sputtering, so common in some arc systems, were here reduced to a minimum, and the lights were powerful, constant, and steady.

A diminutive dynamo and plant designed by Prof. Thomson illustrated the system in all its workings far better than could have been done by a plant distributed to distant parts of the building. It showed clearly the relations between current, electromotive force, and work. A small dynamo generated a constant current, which kept aglow six arc lights, each of the intensity of sixty candles, and by

switching the current it could be made to leave the arc lights and supply the requisite energy for an incandescent plant.

The peculiarity of the Thomson-Houston dynamo may be said to lie mainly in the armature, the construction of which is strikingly original. This armature is made of a cast iron hollow shell; and iron wires, forming an oblate



spheroid, surround this. Insulated copper wire in three series is wound on this core. Starting at that part of the shaft opposite the commutator, the wire of each of these series is led over the longitudinal circumference of the core, and, in order to avoid the shaft, changes its course and returns *via* the opposite circumference of the core. After

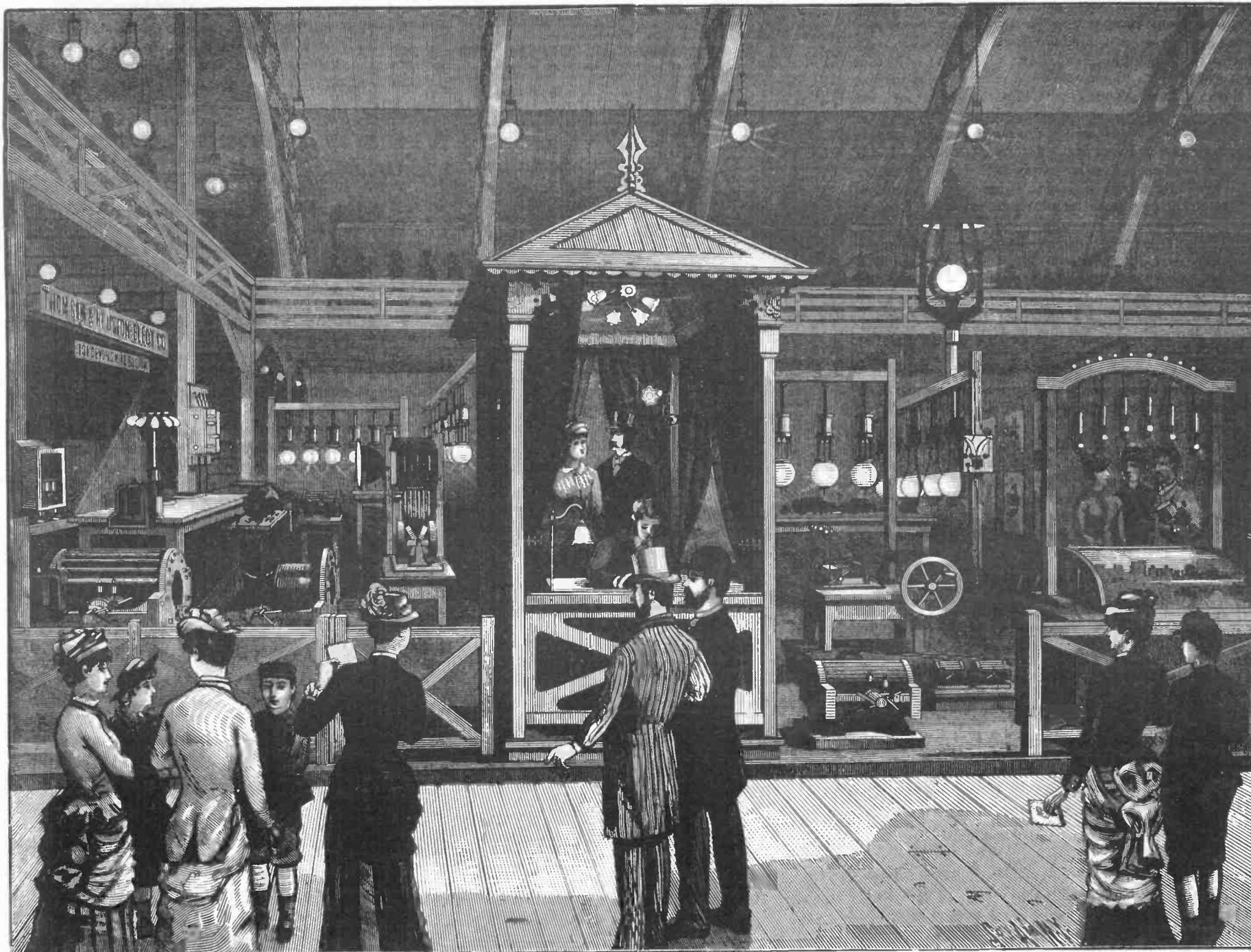
making a sufficient number of convolutions, the terminal is carried out to a segment of the commutator, the beginning of the wire being attached to a coupler near that portion of the shaft which is opposite the commutator.

A like direction is taken by the second series of wires, which are kept at an angle of sixty degrees with the first, and the third series of wires follows at another angle of sixty degrees. The initial ends of these last two series are affixed to the coupler to which the first is attached. Hence all of them are electrically connected. To different plates of the commutator the three free ends are affixed. This method of winding has proved to be very efficient, two series being constantly maintained in the field of force.

By means of a combined motor and generator shown in the exhibit, the arc light or motor circuit can be made to feed incandescent lamps, an alternating current being used. The system employed is that of building on the same shaft the armatures for both the motor and the lighting apparatus, and any kind of current as to character or potential may be taken off.

What attracted not a little attention to this exhibit was the running of arc lights in multiple series. This is an invention of Professor Thomson, and a very important one, for, as seen at the Exposition, it permits the running of arc lights of altogether different intensities from a single circuit, some of them being in series, while others are in multiple arc or in multiple series, and renders practicable divisions and redivisions of lights as well as the rejoining of arc circuits.

For the benefit of scientific institutions and the lecture room generally, the Thomson-Houston Company make a hand dynamo. As exhibited, it showed that it is capable of generating a small arc light or several incandescent lights, ..



THE THOMSON-HOUSTON EXHIBIT AT THE INTERNATIONAL ELECTRICAL EXHIBITION, PHILADELPHIA.

SPRING AND SUMMER ANNOUNCEMENT

OF THE

NEW JERSEY PHONOGRAPH COMPANY,
of Newark, N. J.

A NEW AND COMPLETE STOCK OF RECORDS BY—

Sousa's New Marine Band: We are the first to secure records of this famous band.
Gilmore's Band, of New York City: We always carry a full stock of records of this great band.
Voss' First Regiment Band, of Newark, N. J.: In a new list of popular descriptive selections.
Holding's Military Band: Rendering a full line of latest New York successes.
Issler's Parlor Orchestra: Presenting a variety of musical novelties, songs, dances with clogs, lancers with figures called, waltzes, marches, etc.
Talking Records: The "Casey" Series, by Russell Hunting and The "Pat Brady" humorous talking records by Dan Kelly.
Dan W. Quinn: "Daddy Wouldn't Buy Me A Bow-Wow," "Molly and I and the Baby," "The Bowery," and 40 others.
George J. Gaskin: "I'm the Man that Wrote Ta-ra-ra," "You'd Better Stay at Home, Lad," "Drill Ye, Tarrier," and 40 others.
Lew Spencer: "Hi! Waiter," "Nigger and the Bee," "Near It," and 50 others.
J. W. Myers: "Sing Me Those Pretty Songs," "The Girl I Left Behind."
Chas. A. Asbury: "Coon That Carried the Razor," "Haul The Wood Pile Down," and others with banjo accompaniment.
George W. Johnson: "The Laughing Song," "The Whistling Coon," always popular.
The Manhasset Quartette: "Dixie," "Cornfield," and others.
The Metropolitan Quartette: "Annie Laurie," "The Old Oaken Bucket," "In Old Madrid," very fine, perfect harmony.
Cornet Solos: By D. B. Dana.
Piccolo Solos: By Geo. Schweinfest.
Clarinet Solos: By Wm. Tuson.
Xylophone Solo: By Chas. P. Lowe.

Send for our new catalogue to be issued June 1st. Address, New Jersey Phonograph Co., 87-9 Orange St., Newark, N. J.

The earliest known announcement of records by the Sousa Band (*The Phonogram*, March/April 1893).

THE NEW
PHONOGRAM

ADDRESS ALL COMMUNICATIONS TO
THE PHONOGRAM
National Phonograph Co., Orange, N. J.

MOST POPULAR OF ALL MUSICAL
INSTRUMENTS

With the Edison factories turning out machines at the rate of two a minute every working day there is no longer any question that the Edison Phonograph has become the most popular musical instrument of the present day. Probably more Phonographs are now sold than all other musical instruments combined. The Edison Phonograph is no longer to be considered as in the class with those machines against which many are so prejudiced. Mr. Edison and his assistants studied long to determine the cause of this prejudice. Finding it due to loud and unnatural sound reproductions, blattent horn tones, harshness, scratching and other needless noises, they have eliminated every vestige of such faults, and produced a machine that sings, plays and talks naturally, smoothly and without scratching or horn tones. It is impossible to compare an Edison Phonograph with any other style of machine without realizing that the former is infinitely better. To those who want real music, naturally reproduced, the Edison Phonograph asks no other test than to be played alongside of any talking machine in existence. Such a test will win all but those who want noise and are not looking for quality.

RECORDS PUT TO QUEER USES

Except when a Phonograph is turning out some such pathetic melody as "A Message from Home, Sweet Home" one rarely thinks of that instrument in connection with real sentiment, and yet it has a use of this kind that is growing rapidly all over the world. "It has become a common thing," remarked a man in the business, "for elderly persons to come into my store, have records made, and take these records off with them to their safe deposit box to be given to their children after death. It is pathetic to hear a man of

18 THE NEW PHONOGRAM

Questions and Answers

E. A. L., LaCrosse, Wis.—Who are the publishers of the selection, "So Do I," sung by the Knickerbocker Quartette?

[This selection as given on our Records is a special arrangement and is not published.]

E. C. B., Jones, Okla.—1. In what year was the Edison Phonograph successfully invented? 2. Can Grand Opera Records be used on an Edison Home Phonograph? 3. Can Edison Gold Moulded Records be shaved and used over for new impressions?

[1. In 1877. 2. Yes. 3. No.]

G. S., Stamford, Conn.—1. What was the first piece you listed? 2. How often ought an Edison Phonograph be oiled? 3. How many different kinds of reproducers have you?

middle age speaking into a Phonograph the speech he wishes his children to remember him by. Sometimes he has the speech prepared in writing; again he may have simply a few notes from which he elaborates his little address. As a rule these remarks are brief moral lectures and are usually beautiful since they are so simple and so sincere.

Fathers of families are not the only ones who put the talking machine to such sentimental usage nowadays. It is not an uncommon thing to have a mother accompanied by a child go into a shop where such things are sold to have a Record made of some childish speech that will be sent to the little one's father who is a long distance from his family. Only the other day the newspapers printed the story of a woman in Denver who is dying of a lingering illness talking into a Phonograph every day that her husband might have a Record of her voice after death came to her. Now and again one hears of sweethearts using the talking machine for the same purpose—a case in point being that of an elderly bachelor in this city who begged the woman he was in love with, but who would not marry him, to talk into his Phonograph that he might always be able to hear the sound of her voice. The capabilities of the machine were doubly illustrated in this particular instance, since the woman spoke for the Record in French.

That the use of the talking machine in this particular manner is growing rapidly is shown by the increase in the sales of blank Records, and also of the numbers of persons who go into the shops where the machines are sold to not only have speeches recorded, but also to have messages reproduced. There is never any charge made for this work beyond the original cost of the blank Records, since such accommodations are recognized as being a good advertisement for the machines themselves.

That the Phonograph is recognized as an instrument of some scientific value is fully demonstrated by the action taken in recent years by directors of the Smithsonian Institution at Washington, of Harvard University, of Yale, and one of the universities at Vienna. At the Smithsonian they are making a collection of talking machine Records of the various dialects of our Western Indian tribes to preserve them against the time when the Indian tongues shall have disappeared from human speech. The Smithsonian people began this work as far back as the time of the Buffalo Fair, when they had all the Indians at the Fair speak into the machines for Records.

February 1907

[1. In the present series of Records the first selection listed was "All Coons Look Alike to Me," by the Edison Grand Concert Band. 2. See direction sheets for instructions. 3. Several. Only ones now on market are models "C" for two-minute record, "H" for four-minute and "K" for both.]

A. G. G., Phila., Pa.—1. Does Mr. Gillette sing for you any more? 2. Please give names of the singers who sang the Record named "I Wonder if You Miss Me," Edison Quartette, No. 9048.

[1. Yes, with the Peerless Quartette. He has done no solo work for over a year. 2. John Biehling, first tenor; Harry MacDonough, second tenor; S. H. Dudley, baritone; W. F. Hooley, basso.]

F. F. S. and Family, Springfield, Vt.—1. Does Frank C. Stanley still sing for you? 2. Does MacDonough or Meeker make the announcement on Record, "Softly and Tenderly," No. 9367? 3. Who takes the parts of the duck and the turkey on Record 2229 "Farm Yard Medley"?

[1. Yes. 2. Meeker. 3. Members of our Recording Department.]

October 1909

BEITMAN

High School systems. Remember the early schematics or (pictorial wiring diagrams as they were called) for pre-thirties? The Radio Manufacturers Association (RMA) was trying to standardize the different parts of the diagrams (by using same symbols). The symbols and information provided in each manufacturers Radio Service Manual usually was misleading and different. It gave the radio repairman just enough information to repair the set, but he usually ended up tracing the circuit out wire per wire and designing his own diagram. You can imagine how the beginning radio student felt trying to learn this and a lot of them became discouraged.

Morris applied his practical experience instructing students on how to take a radio set and layout a complete wiring diagram using all the manufacturers service manuals, and loads of other related loose information. The sets were usually checked out point-to-point under operating conditions and new information applied to the diagrams.

This later became Volume 1 1926-38 MOST-OFTEN-NEEDED RADIO DIAGRAM MANUAL as we know it today. There are over 240 pages covering 600 models such as all popular Atwater Kents, RCA, Philco, Crosley, etc. The Supreme Publications Trade Mark of "Theory, Practice and Experience" really stands out.

Volume 2, 1939 was published in the same year and consisted of 192 pages covering 39 models.

Volume 3, 1940 manual covered 417 models from 43 manufacturers with the first data on F. M., portables, recording and special equipment. The first NEW RADIO ELECTRONICS home-study-course was published.

Volume 4, 1941 manual consisted of 192 pages with all popular models of that year. In 1941 the following books and manuals were published: HOW TO MODERNIZE RADIOS FOR PROFIT, PRACTICAL RADIO MATHEMATICS, and PRACTICAL RADIO FOR WAR TRAINING, this book consisted of 336 pages with 300 illustrations and later on called the 1943 6 x 9 manual although not published as such. The 1941 Motto still stands, "Our aim always has been to find this manual to be of service to the radio man. We believe you will find this manual your servant and tool, ready to assist you in making radio servicing easier, faster, and much better paying work."

Volume 5, 1942 consisted of 208 pages with data of 351 models from 40 of the largest manufacturers.

The war years 1943, 1944 and 1945 produced no manuals because civilian radios receivers were not made during this period. In 1945 Supreme published the following: SIMPLIFIED RADIO SERVICING BY COMPARISON METHOD, CYCLOPEDIA OF TELEVISION FACTS, and POST-WAR RECORD CHANGERS. Any sets

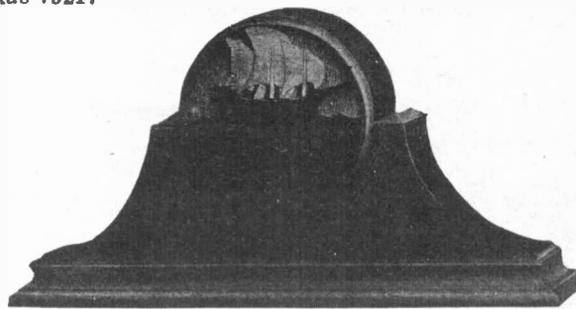
Continued on page 6



The new Freshman Masterpiece has a real appeal to the women of the home. It is compact and has a built-in loud speaker, and sells for a few cents below the \$100 mark.

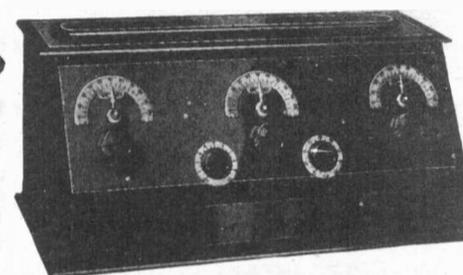
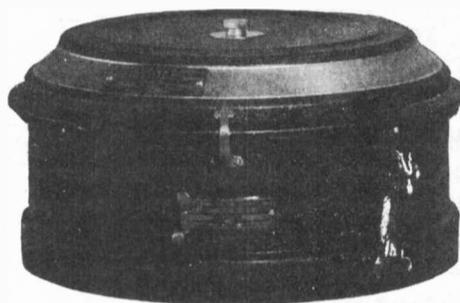
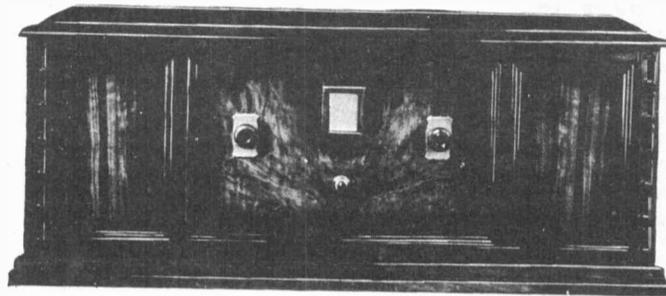
A KELLOGG RECEIVER

Is shown below. It is a highly sensitive, yet easy to control, seven-tube set, designed to furnish as closely as possible a satisfactory answer to the question, "What is the ideal form of radio for the home?" To the right is shown a beautiful example of loud speaker design, a product of the Seaman-Jones Fibre Products Company, of Chicago



QUALITY THE KEYNOTE

In this six-tube Air-Way tuned radio frequency receiver. The three audio stages employ the resistance-capacity method of coupling, and there are two stages of radio frequency amplification. This receiver is manufactured by the Air-Way Electric Appliance Corporation of Toledo, Ohio



THE BLAIR SIX

Employs three stages of resistance-coupled audio amplification. It gave very satisfactory results when tested in the RADIO BROADCAST Laboratory

THE "NO DIAL"

An innovation in receiver design, produced by the Ohio Stamping & Engineering Company, of Dayton, Ohio. The unusual method of control, by rotating the lid, does not appreciably detract from the efficiency of the set

THE RADIO FLIVVER

Alias, the Crosley 5-38 receiver. Despite their low cost, very excellent results are obtainable with this and other Crosley sets. A feature of the new Crosley model is the Crescendon, a volume control device exclusive with these sets

Above: radios from May 1926 RADIO BROADCAST magazine.

Below: part of a 1922 advertisement.

on the Air

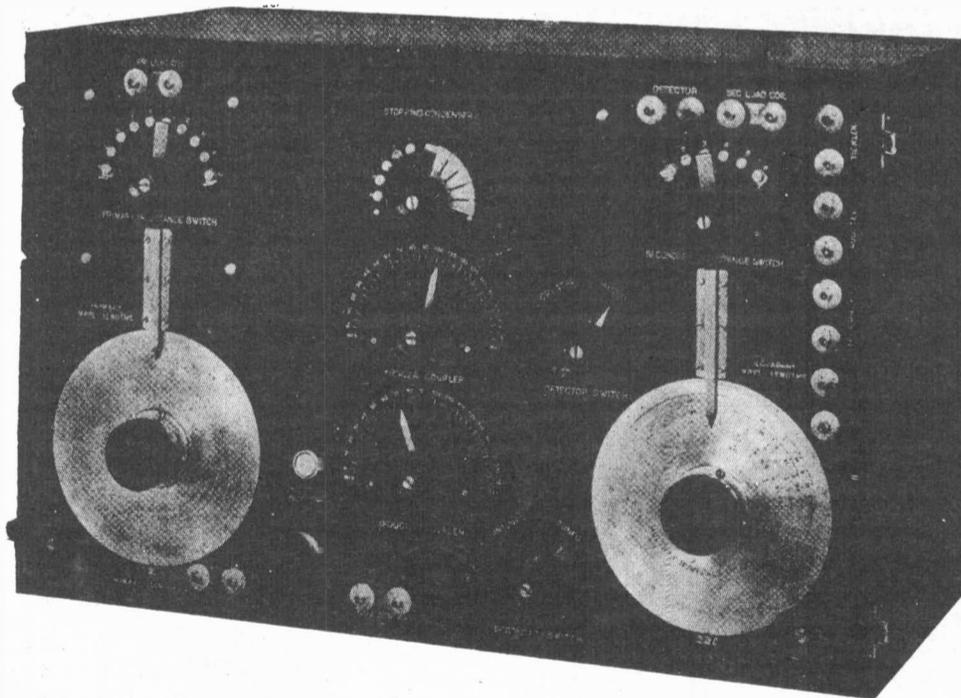
THE SEARCH

A collector, who has been successful at collecting many radios, phonographs, records, telephones, light bulbs, etc., told me how he collected most of them. He said, "I make myself available to speak before groups about the history of the fabulous phonograph industry and the exciting days of early wireless."

He is able by his talks to teach history, and not like some collectors who might think that he is raising the price of vintage outfits, he is able to use his influence to keep the buying price down.

He explains to everyone that his hobby is in its infancy and that the phenomenal high prices of antique automobile has not happened to his hobby.

This De Luxe U. S. Navy Type Radio Receiver must not be confused with instruments selling for from \$200 to \$300. Highly selective. Will pick up messages, music, lectures, etc., that lower-priced instruments will not hear.



For Immediate Christmas Delivery **\$595** List Price

Write for special club or trade discounts

CHARLES R. ABLETT CO.
199 Fulton St., NEW YORK CITY

THIS receiver is equipped with binding posts which are normally short circuited for 300 to 6800 meters by which wave lengths up to 23,000 meters may be received by the attachment of loading coils. Capacities of proper loading coils for above are: Primary 50; Secondary 50; Tickler 30 millihenries. While the receiver is provided with a "standby" or untuned circuit, it also has an unusual degree of selectivity. Although primarily designed for the more advanced fields of Radio work, or the laboratory, the simplicity of arrangement and beauty of finish make it unusually desirable for the radio club or for the individual who desires the finest equipment obtainable for his home or office. In the receiver, Bakelite tubes, threaded, provide the forms on which inductance coils of high frequency cable are bank-wound. After assembling, the coils are impregnated with an insulating compound, in vacuum, and thoroughly baked. The inductance switch controls a mechanism whereby the different sections may be connected, completely disconnected and opened, or completely disconnected and individually short circuited. This arrangement is important for, by it, each coil has a natural period when connected which is less than the shortest wave length in the receiver's range. The reception of parasitic signals is overcome, the absorption of desired signals by the coils is minimized, more energy is forced to the detector and on all wave lengths the interference is reduced.

TELEGRAPH PARTS

For those interested in buying parts for telegraph apparatus try:

William Nye Co.
1519 130th N. E.
Bellevue, Wash. 98005

that were made in these years are included in the 1946 Volume 6 manual.

The reconversion of radio manufacturers to peace time production was not easy. Radio plants found the change over to making home receivers presenting problems of different types which are more difficult to solve by some factories. A few plants closed in this period of time due to labor strikes and problems. This is why some of the manufacturers are not listed in the 1946 manual volume 6.

Volume 6, 1946 manual was published along with a complete book titled, "SERVICE NOTES" on radio record players, automatic changers, wireless units and home recorders.

Volume FM, not volume 7, was published in 1947 and consisted of 192 pages of F. M. radios and the first television major wiring diagrams with illustrations.

Volume 8, 1948, volume 9, 1949, volume 10, 1950, MOST-OFTEN-NEEDED RADIO DIAGRAMS were published in their respective years. Volumes 11 through R-26, 1966 concludes the radio series.

Volume FM really is TV-1 published in 1947 and volume TV-2 1948 the year of the television consists of 192 pages TV-3 1949 through TV-29 B & W TV 1970, C-70 1970, is for color television and these are currently offered for sale.

Due to the nostalgia craze that is sweeping the country, more old radios and televisions are being hauled into the shop for repairs, the collecting boom is on. I can thank Morris Beitman for all the information, technical assistance, and courteous service he has given me in the past years. Although there is only a limited supply of the old radio diagram manuals left he has consented to let them be reprinted, thus enabling our hobby to move ahead.

The Horn Speaker wants each of its subscribers to feel that the construction and contents of The Horn Speaker is influenced by them.

MAGNAVOX Radio Products



A1-\$27.50

MAGNAVOX Audio-frequency Power Amplifiers

THESE instruments offer the most ideal method for amplification of audio-frequency waves before they are reproduced into sound.

Wherever ordinary audio-frequency is replaced with Magnavox Power audio-frequency, stations previously out of range can be reproduced in excellent volume.

The new one-stage Magnavox Power Amplifier A1, illustrated above, is just what is needed in many cases to bring in the distant stations.

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- R2 with 18-inch curvex horn \$50.00
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TUBE LIST No. 9A all prices subject to change without notice.

HOW TO ORDER:
 (1) Make all checks or money orders payable to J.W.F. Puett.
 (2) Please state whether new or used tubes are desired and whether a reduced-price used tube is desired when a new tube is out of stock. REFUNDS are mailed with your invoice for out-of-stock tubes, or when, by customer request, a used tube is substituted for an out-of-stock new tube.
 (3) All orders are shipped parcel post - no C.O.D. INCLUDE 15% FOR POSTAGE & HANDLING. INSURANCE RATES ARE 30¢ for orders under \$50.00. TEXAS RESIDENTS ADD 5% STATE SALES TAX. MINIMUM ORDER \$3.00.

IN TABLES 1, 4 & 6 THE SYMBOL n INDICATES THAT A TUBE IS AVAILABLE NEW AND THE SYMBOL u INDICATES THAT IT IS AVAILABLE USED.

TABLE 1 - OLDER TYPE-NUMBER TUBES - prices listed for new tubes used tubes are half new price

0	u	\$4.	523	nu	\$2.	6Z5	nu	\$3.	14C5	n	\$3.	55	n	\$3.
1A3	n	\$3.	524	nu	\$2.	7A4	nu	\$3.	14C7	n	\$3.	56	nu	\$3.
1A4	nu	\$3.	6A3	n	\$3.	7A5	n	\$3.	14F7	n	\$3.	57	u	\$3.
1A5	u	\$3.	6A4	nu	\$4.	7A6	nu	\$3.	14F8	n	\$3.	58	u	\$3.
1A6	n	\$3.	6A5	n	\$3.	7A7	nu	\$3.	14H7	n	\$3.	59	n	\$3.
1A7	nu	\$2.	6A6	nu	\$3.	7A8	nu	\$3.	14J7	nu	\$3.	70A7	n	\$3.
1B4	n	\$2.	6A7	nu	\$4.	7A7P	nu	\$3.	14N7	n	\$3.	70L7	nu	\$3.
1B5	u	\$3.	6A8	nu	\$3.	7AG7	nu	\$3.	14Q7	nu	\$3.	75	nu	\$3.
1C5	nu	\$3.	5B4	nu	\$4.	7AK7	u	\$3.	14W7	n	\$3.	76	nu	\$3.
1C6	n	\$3.	5B5	nu	\$4.	7B4	nu	\$3.	14X7	n	\$3.	77	nu	\$3.
1D7	u	\$4.	6B6	nu	\$4.	7B5	nu	\$3.	15	u	\$5.	78	nu	\$3.
1D5	u	\$4.	6B7	nu	\$4.	7B6	nu	\$3.	19	nu	\$3.	79	nu	\$3.
1D8	nu	\$4.	6B8	nu	\$3.	7B7	u	\$3.	24A	nu	\$3.	80	nu	\$2.
1E5	u	\$3.	6C5	nu	\$2.	7B8	nu	\$3.	25A6	n	\$3.	81	u	\$5.
1E7	n	\$3.	6C6	nu	\$3.	7C5	nu	\$3.	25A7	nu	\$3.	82	u	\$3.
1F4	n	\$3.	6C7	n	\$3.	7C6	u	\$3.	25B6	u	\$3.	83	n	\$3.
1G4	nu	\$3.	6C8	nu	\$3.	7C7	nu	\$3.	25C6	u	\$3.	84	nu	\$3.
1G5	u	\$3.	6D6	nu	\$3.	7E6	u	\$3.	25L6	u	\$2.	85	nu	\$3.
1G6	u	\$2.	6D7	n	\$3.	7E7	nu	\$3.	25S	u	\$3.	89	nu	\$3.
1H4	u	\$3.	6E6	n	\$3.	7F7	nu	\$3.	25Z5	nu	\$2.	117-		
1H5	nu	\$3.	6E7	u	\$3.	7F8	nu	\$3.	25Z6	nu	\$2.	L7	nu	\$4.
1H6	nu	\$2.	6F5	nu	\$3.	7G7	u	\$3.	26	nu	\$4.	117-		
1LA4	n	\$3.	6F6	nu	\$3.	7H7	u	\$3.	26A6	n	\$3.	Z6	nu	\$3.
1LA6	nu	\$3.	6F7	nu	\$5.	7J7	n	\$3.	26A7	nu	\$3.	9002	n	\$3.
1LB4	nu	\$3.	6F8	nu	\$2.	7K7	u	\$3.	27	u	\$3.	9003	n	\$3.
1LC5	n	\$3.	6G6	nu	\$3.	7L7	nu	\$3.	28D7	nu	\$3.	VT52	u	\$4.
1LC6	n	\$4.	6H6	nu	\$2.	7M7	nu	\$3.	30	u	\$3.	XXB	n	\$3.
1LD5	nu	\$3.	6J5	nu	\$3.	7Q7	nu	\$3.	31	nu	\$3.	XXM	u	\$3.
1LE3	n	\$4.	6J7	nu	\$3.	7R7	n	\$3.	32	n	\$3.	XXL	nu	\$3.
1LF3	n	\$4.	6J8	u	\$3.	7S7	nu	\$3.	32L6	u	\$2.			
1LG5	n	\$3.	6K5	nu	\$3.	7V7	nu	\$3.	32L7	u	\$2.			
1LH4	nu	\$3.	6K6	nu	\$3.	7X6	u	\$3.	33	n	\$3.			
1LN5	nu	\$3.	6K7	nu	\$3.	7Y7	u	\$3.	34	nu	\$3.			
1M5	nu	\$3.	6K8	nu	\$3.	7Y4	nu	\$3.	35	u	\$3.			
1P5	nu	\$3.	6L5	n	\$3.	7Z4	nu	\$3.	35Y4	u	\$2.			
1Q5	nu	\$2.	6L6	nu	\$3.	12A7	nu	\$3.	35Z3	nu	\$2.			
1V	n	\$4.	5L7	nu	\$3.	12A8	u	\$3.	36	u	\$2.			
2A3	nu	\$5.	6N5	n	\$3.	12B7	u	\$3.	37	u	\$3.			
2A4	nu	\$4.	6N6	nu	\$3.	12B8	u	\$3.	38	nu	\$3.			
2A5	u	\$3.	6N7	nu	\$3.	12C5	nu	\$3.	39	nu	\$3.			
2A6	nu	\$3.	6N5	nu	\$3.	12C8	nu	\$3.	41	nu	\$3.			
2B7	nu	\$3.	6Q7	nu	\$3.	12J5	nu	\$3.	42	nu	\$3.			
3C6	n	\$3.	6R7	nu	\$3.	12J5	nu	\$3.	43	nu	\$3.			
3LF4	n	\$3.	5Z7	nu	\$3.	12J7	nu	\$3.	44	nu	\$3.			
3Q5	nu	\$2.	5S8	n	\$3.	12K7	nu	\$3.	45	u	\$4.			
5R4	u	\$2.	6T7	u	\$3.	12K8	nu	\$3.	46	nu	\$4.			
5T4	nu	\$2.	6T8	n	\$2.	12Q7	nu	\$3.	47	nu	\$5.			
5U4	nu	\$2.	6U6	nu	\$3.	12Z3	u	\$3.	48	n	\$5.			
5V4	nu	\$2.	6U7	nu	\$4.	14A4	n	\$3.	49	n	\$4.			
5W4	nu	\$2.	5V6	nu	\$2.	14A7	u	\$3.	50A5	nu	\$2.			
5X4	nu	\$2.	5V7	nu	\$3.	14B5	n	\$3.	50C6	n	\$2.			
5Y3	nu	\$2.	6V6	nu	\$2.	14B6	nu	\$3.	50X6	nu	\$3.			
5Y4	nu	\$2.	5Z4	nu	\$2.	14B8	n	\$3.	51	u	\$3.			

ADDITION:
2E5 n \$4.
6G5 u \$3.
10/VT-
25 n \$4.

TABLE 2 - OLD STYLE GLASS ENVELOPE TUBES
all are used, thoroughly tested
Tube type numbers are listed under manufacturer names.

Ace:	Cunningham:	Majestic:	Philco:	Radiotron:	Sylvania:
X-224 \$3.	C324 \$4.	G27 \$3.	24 \$3.	UX222 \$4.	SY224 \$4.
Arcturus:	CX326 \$4.	G358 \$3.	26 \$4.	UY224 \$4.	
(blue glass)	C327 \$3.		27 \$3.	UY227 \$3.	SI280 \$2.
No. 27 \$5.	CX332 \$4.	National:	36 \$3.	35 \$2.	Tung Sol:
No. 51 \$5.	CX345 \$4.	Union:	37 \$3.	UX245 \$4.	24 \$3.
Crosley:	56 \$3.	NY224 \$4.	80 \$2.	56 \$3.	Wissard:
Ken Rad	CX371 \$5.	39 \$2.	71A \$5.	226 \$4.	
UX245 \$4.	CX380 \$3.	PA-224 \$4.			
56 \$3.					

WD-11 substitute TYPE 864 - \$2.00 each

TUNGAR BULBS
new .5, 2 or 15 amp - \$3.00 ea

TABLE 3 - TUBE COLLECTOR SPECIALS

Radiotron:	Cunningham:	Majestic:
10 used \$5.00	CX350 used \$6.00	A.P. (rectifier) used \$5.00
WX12 used \$7.00	De Forest	Raytheon:
UX200 new \$9.00	Audion:	B-H (rectifier) used \$5.00
used \$5.00	450 used \$6.00	VISITRON (photo cell)-
UX240 used \$5.00		new \$5.

WESTINGHOUSE PROJECTION BULB
TYPE T20 C13P 500W - new \$5.

WE212F used \$15.00
852 used \$15.00

TABLE 4 - MORE RECENT TUBE TYPES - prices listed for new tubes used tubes are half new price

0A2 n \$2.	6AT6 nu \$2.	12A5 nu \$3.	35Z5 nu \$2.	1629 u \$3.
0A3 u \$2.	6AU6 nu \$2.	12A6 nu \$3.	35Z6 nu \$3.	1633 u \$2.
0B3 u \$2.	5AV6 nu \$2.	12AT6 nu \$2.	40Z5 u \$3.	1634 u \$2.
0C3 nu \$2.	6BA6 nu \$2.	12AT7 u \$2.	45Z3 n \$3.	1635 u \$2.
0D3 nu \$2.	6BE6 nu \$2.	12AU6 nu \$2.	45Z5 nu \$3.	2050 nu \$3.
0Y4 u \$3.	6BJ6 nu \$2.	12AU7 nu \$2.	50R5 nu \$2.	2051 nu \$2.
0Z4 nu \$3.	6C4 nu \$2.	12AV6 nu \$2.	50C5 nu \$2.	5686 n \$3.
1L4 n \$4.	5J6 nu \$2.	12BA6 nu \$2.	50L6 nu \$2.	5691 n \$2.
1L6 n \$5.	6S4 n \$2.	12B86 nu \$2.	50Y6 nu \$3.	CK-
1R5 nu \$2.	6SA7 nu \$3.	12L6 nu \$3.	50Y7 nu \$3.	5703 u \$2.
1S4 n \$1.	6SB7 nu \$3.	12SA7 nu \$2.	117-	5749 u \$2.
1S5 nu \$2.	6SC7 nu \$2.	12SC7 n \$3.	23 nu \$3.	5751 nu \$2.
1T4 nu \$2.	6SD7 nu \$3.	12SP5 n \$2.	117-	5814 n \$2.
1T5 nu \$2.	6SP5 n \$2.	12SP7 n \$2.	24 u \$3.	5879 n \$2.
1U5 nu \$2.	6SP7 n \$2.	12SQ7 nu \$3.	807 nu \$5.	5881 u \$4.
2C26 u \$3.	6SG7 nu \$3.	12SH7 n \$3.	879 n \$3.	5992 u \$4.
2X2 n \$3.	6SH7 nu \$2.	12SJ7 nu \$3.	884 n \$5.	6080 u \$2.
3A4 nu \$2.	6SJ7 nu \$2.	12SK7 nu \$2.	930 n \$3.	6842 u \$2.
3A5 nu \$2.	6SK7 nu \$2.	12SL7 nu \$3.	950 u \$4.	6973 n \$2.
3A8 n \$3.	6SL7 nu \$2.	12SN7 nu \$2.	955 n \$4.	7193 u \$2.
3Q4 nu \$2.	6SN7 nu \$1.	12SQ7 nu \$2.	958 u \$4.	VR90 nu \$2.
3S4 nu \$2.	6SQ7 nu \$2.	12SR7 nu \$3.	CK-	VR-
3V4 nu \$2.	6SR7 nu \$2.	12V6 nu \$3.	1005 u \$3.	105 n \$2.
6AB4 nu \$2.	6SS7 nu \$2.	12W6 n \$2.	E1158 u \$3.	VR-
6AB7 nu \$2.	6SU7 n \$2.	12X4 n \$2.	1201 u \$3.	150 nu \$2.
6AC5 nu \$2.	6SV7 n \$2.	19T8 nu \$3.	1203 u \$3.	
6AG7 nu \$3.	6W6 nu \$2.	35A5 nu \$3.	1232 u \$3.	ADDITION:
6AK5 nu \$2.	6I4 nu \$2.	35C5 nu \$2.	1273 u \$3.	104 u \$2.
6AL5 nu \$2.	6I5 nu \$1.	35L6 nu \$2.	1612 u \$3.	2E30 n \$3.
6AL7 n \$2.	6Y5 u \$2.	35W4 u \$2.	1625 u \$4.	6877 n \$2.
6AQ5 nu \$2.	6Y7 u \$2.	35Z4 nu \$2.	1626 u \$3.	35B5 n \$2.
				6146 n \$3.

ADDITION- 6B5 n \$2. 6C4 n \$2. 12BK5 n \$2.

TABLE 5 - BALLAST TUBES - \$3.00 each - all are new

JFD Type A, B & C; K36A; K49B; K30C; K32B; KX49B; L55B; 2B14; 3H7; 4P45; 7H11; 4J1; 100-77; 100-79; 165R; 165R4; 185R4; 250R; 60Q2A. AMPERITE 3TP7; VICTOREEN 1300-8

TABLE 6 - TV AND MISC. TYPES - tubes in this table are priced at - \$2.00 new, \$1.00 used *****

1A12 n	3BN6 nu	4BQ7 n	5A24 n	5T8 nu	6AM8 u	6AX4 nu	6BN4 nu	6CG7 nu	6CU8 nu	6EM8 n	10DE7 n	12BH7 nu	17DQ6 nu
1B3 nu	3BU8 nu	4BZ6 u	5B8 n	5J8 nu	6AN8 u	6AX5 nu	6BN6 nu	6CG8 nu	6CX8 n	6ES8 u	10J78 n	12BK5 nu	19AU4 n
1C21 n	3BY6 n	4BZ7 u	5BQ7 n	5V6 u	6AQ7 nu	6BA7 nu	6BQ5 nu	6CK4 u	6CY5 u	6EZ5 n	12AD6 n	12BQ6 nu	198G6 n
1C2 nu	3BZ6 nu	4CB2 nu	5BR8 n	5X8 u	6AR5 nu	6BC5 nu	6BQ6 nu	6CL6 u	6CT7 u	6GK6 u	12AF3 n	12BY7 nu	25AC5 n
2BN4 nu	3CB6 nu	4CS6 u	5CC8 nu	6AC5 nu	6AR6 u	6BC7 u	6BQ7 nu	6CL8 u	6CZ5 u	6JZ8 n	12AH7 nu	12BZ7 nu	25AV5 nu
2CY5 u	3CS6 nu	4DK6 u	5CL8 nu	6AC7 nu	6AS5 nu	6BD6 u	6BQ8 n	6CM6 n	6DA4 u	6MELO u	12AJ6 u	12CA5 nu	25AX4 nu
2GK5 u	3DK6 u	4DT6 u	5CM8 n	6AD6 n	6AS7 u	6BF5 n	6BY7 u	6CM7 nu	6DB5 u	6U8 nu	12AL5 u	12DQ6 u	25BK5 nu
2W3 nu	3DT6 nu	4EJ7 u	5CQ8 n	6AD7 n	6AS8 u	6BF6 n	6BY5 nu	6CM8 n	6DE6 u	6V3 nu	12AV7 nu	12DT5 u	25BQ6 nu
3AL5 u	3DZ4 u	4HT6 u	5DH8 u	6AE6 n	6AT8 u	6BG6 n	6BY6 nu	6CN7 u	6DN7 u	6V4 nu	12AX4 nu	12EG6 u	25CD6 n
3AU6 nu	3ER5 n	4JC6 u	5FP7 u	6AF6 nu	6AU4 u	6BH6 n	6BY8 u	6CN8 u	6DQ6 n	6W4 nu	12AX7 nu	12EK6 u	25DM6 n
3AV6 n	3GK5 n	5AM8 u	5GX7 u	6AH4 n	6AU5 nu	6BH8 u	6BZ7 u	6CR6 n	6DT6 u	7AU7 nu	12AZ7 u	12FX5 u	25W4 n
3B2 nu	4AU6 u	5AN8 nu	5J6 n	6AE6 n	6AU8 nu	6BK5 nu	6CB5 u						

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46-50	2.75	4.80	6.85	25.45
51-55	3.05	5.30	7.55	28.00
56-60	3.30	5.80	8.25	30.55
61-65	3.65	6.30	8.95	33.05
66-70	3.90	6.75	9.65	35.60
71-75	4.15	7.25	10.30	38.20
76-80	4.45	7.75	11.00	40.75
81-85	4.70	8.20	11.70	43.25
86-90	5.00	8.70	12.35	45.80
91-95	5.25	9.20	13.05	48.40
96-100	5.50	9.65	13.75	50.90
101-110	6.05	10.95	15.15	56.00
111-120	6.60	11.85	16.30	61.00
121-130	7.20	12.55	17.55	66.20
131-140	7.75	13.30	18.75	71.25
141-150	8.25	14.45	20.05	76.30

Photo ads \$2.00 extra.

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One large Atwater Kent 20.....\$40.
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Round dome radio no name.....\$75.
Wood table model RCA model 85T1.....\$45.
Edison Triumph Cylinder Phonograph, no horn or reproducer.\$175.
7" Teletone Television.....\$50.
7" Admiral Television.....\$50.
Send \$1.00 for polaroid. Seidel, 614 Grove Lane, Santa Barbara CA 93105. Pho: 805 687-7967.

FOR SALE: Compact Atwater Kent model 20, battery set VCC. Complete with good 201A tubes....\$50.00 plus postage. Glenn Eckley, 1605 Inverness Rd., Apt. D., Balto., MD 21222.

FOR SALE: Rubber stamp with your name and address plus AK Radio and speaker \$3.00 pp. James Fred, P. O. 42, Rossville IN 46065.

FOR SALE OR TRADE



ANTIQUÉ Televisions from 1930s to 1940s. Hallicrafters, Pilots, RCA, Transvision, Philco, Andera, Crosley, more. Send \$1.00 for picture and information. Seidel, 614 Grove Lane, Santa Barbara CA 93105. Pho: 805-687-7967.

OUR CHRISTMAS cards for 1974 are ready and are a true delight. Greet your friends this year with a card depicting a family listening to an Edison Phonograph - and at the same time remind them of your hobby! Cards are 14¢ each post-paid, minimum order of 15. NAPCO, 133 Main St., St. Johnsbury VT 05819.

FOR SALE: AK-10B Breadboard, Crosley Pup, Federal 110, Aeriola Jr., Rotary Spark gap Xmitter with coils and glass plate capacitor quite large, Pilot TV 3", and many more items, all near mint. Send SASE for list. Richard Cane, 8391 N. W. 21st., Sunrise, Fla. 33313.

FOR SALE: Radios, parts, books and magazines. Also early movie projectors, Weston testing equipment, etc. Roland Matson, 388 Concord Road, Bedford, Mass. 01730. Pho: 617 663-3877.

TUBES - WD-11, WD-12, 201A, 199, 216A, 211A, Vt-1, VT-2, 203A, 226, 227, 245, 280, 224A, many with brass bases, many other types. SASE for large list. Cecil Bounds, Pine Springs Rte., Carlsbad, N. M. 88220.

WD11 Adaptors, use UK199, 120, VT24. No Wiring changes, Radiola III's battery hook up included \$5.25 pp., 2 for \$9.25. Keith Parry, 17557 Horace St., Granada Hills CA 91344.

FOR SALE-400 Radios, etc., as a lot (no list) interested people stop in. Open Thursday, Friday and Saturday 11 AM to 5 PM. Pat Cutini, 969 Genesee, Buffalo, N. Y.

FOR SALE: Solid state power supplies for operating battery radios. G. B. Schneider, 6848 Commonwealth, Para Hgts, Ohio 44130.

FOR SALE: Volumes 1-23 Riders complete \$125.00, or trade for battery or crystal sets. B. Pequod, 8520 Fernald, Morton Grove, Ill. 60053.

1921-1931 schematics and service data where available \$2.00. Cecil Bounds, Pine Springs Rte., Carlsbad, N. M. 88220.

FOR SALE OR TRADE

7

CLASSIC and ANTIQUE RADIOS and Mechanical Phonographs restored, bought, sold. Reproducers and Magnetic Pickups rebuilt. Send SASE for parts and services available. Twentieth Century Talking Machine Co., 856 Cole St., San Francisco CA 94117. MO 4-0469.

WANTED

WANTED: Half nut and bar assembly for Edison Standard combination two and four minute machine....Model F, reproducer model C or model H for same machine. Tube cover for a Radiola 25, all three RF transformers for a DeForest D-10, Glenn Eckley, 1605 Inverness Rd., Apt. D, Balto., MD 21222.

WANTED: Televisions 1926 - 1950 8 inch screen or smaller, Scanning Disc, or Drum Televisions, Televisions News Magazines, and anything else to do with early television. Will trade battery sets, tubes or money. Dennis Choiniski, 2366 S. Howell, Milwaukee, Wis. 53207.

WANT EARLY Radio Magazines pre-1925. Have many duplicates of years 1930 - 1949 of Radio News, Short Wave Craft, Radio Craft, Service, etc., to trade or sell. Nothing over \$1.50. Five page list 50¢. Collectorium, 2444 Edison Hwy., Bakersfield CA 93307.

WANTED: Books, memorabilia about disc recording and pre-1937 television. Will Buy or trade Wireless telegraphy books. H. Layer, AV-SFSU, 1600 Holloway, San Francisco CA 94132.

WANTED: Cabinet for Grebe CR-9. Cabinet and information on Jones model S/W-H, 1 tube receiver. Tuning knob for A. C. Dayton XL-5. William L. Wall, P. O. Box 213, Bethlehem, Georgia 30620.

NEEDED: Date of manufacture for Fischer Medical instrument, Type G, No. 10887. Al Zandstra, 5871 8th Ave., Grandville, Mich. 49418.

WANTED: Old radio books, catalogs, Gernsback manuals, Early test equipment. Give price in first letter. William Hemrick, Route 1, Terra Alta, West Virginia 26764.

WANTED: Record catalogs and supplements early 1890-1940. Also dealer numerical catalogs, for research. Reply guaranteed. Tim Brooks, 1940 80th, Jackson Heights, N. Y. 11370.

WANTED: Everyman's Guide to Radio; Radio Dealer Yearbooks; Radio Retailing pre-1933; other books and mags. Morgan McMahon, Box 2045, Palos Verdes Pnsia. CA 90274.

Mr. Gary B. Schneider
6818 Commonwealth Blvd.
Parma Hgts., Ohio 44130

75c

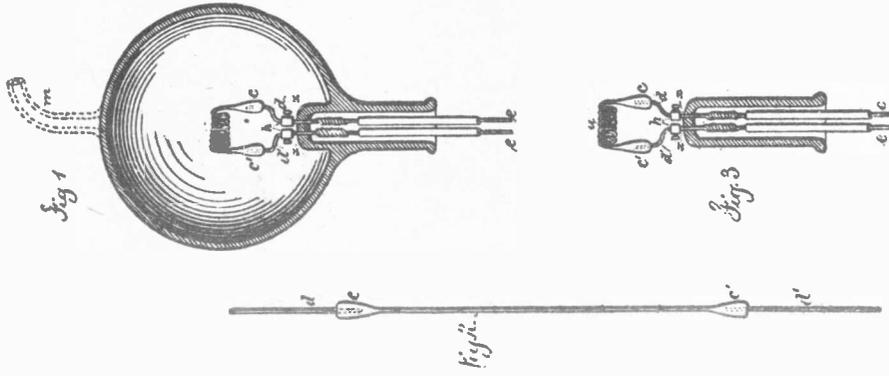
THE HORN SPEAKER

NOVEMBER 1974

T. A. EDISON
Electric-Lamp

No. 223,898

Patented Jan. 27, 1880.



Witnesses
Chas. Smith
Geo. P. Meloy
Inventor
Thomas A. Edison
for Samuel W. Loring

Reproduction of drawing on file in United States patent office.
It is a part of Edison's fundamental patent on the
incandescent electric lamp.

1923 ADVERTISEMENT

RADIO BROADCAST ADVERTISER

REMLER

APPARATUS THAT RADIATES QUALITY

THE MOST POPULAR
Panels
ON THE MARKET

IN designing these Remler Control Panels, Remler Engineers combined every point necessary for efficient detector and amplifier tube control with special features of construction for the convenience of the user. No process of manufacture that would make these panels efficient in operation and beautiful in appearance has been neglected.

Each panel is a complete unit, mounted on a hardwood base for table use, but so designed that it may be easily mounted in a cabinet. The input and output binding posts are located on opposite sides of the panel at a standard height to facilitate the neat and easy connection of other Remler units.

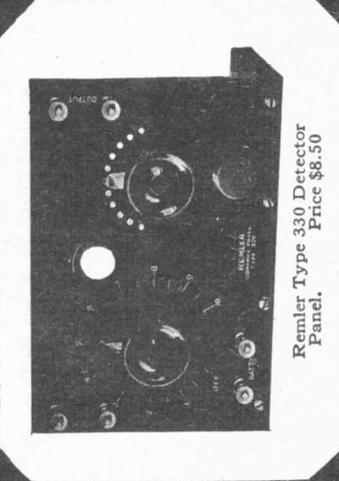
The 330 Detector Panel contains the Remler Grid Condenser and Variable Grid Leak unit. Also the patented Remler "A" Battery Potentiometer for plate voltage control—an item very necessary for obtaining maximum efficiency from the sensitive gas filled detector tubes.

The 333 Amplifier Panel contains the Remler Rotary Cam Switch which does the work of two jacks and plug in cutting in or out steps of amplification.

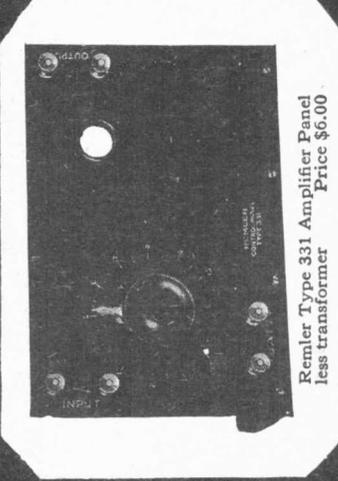
All panels are of highly polished black Bakelite and only Remler standard Quality parts are used in the assembling of the unit. All lettering is recessed and filled with a special white enamel that will not discolor or chip out.

NEW REMLER CATALOGUE

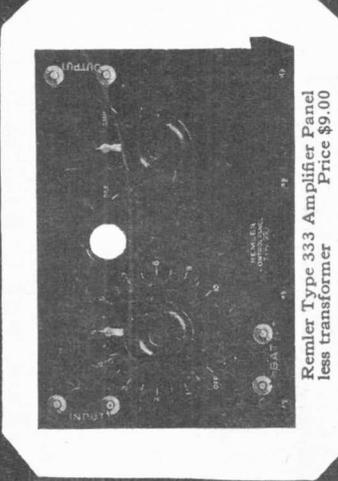
Send 10c for new 40 page Remler catalogue just off the press containing circuit diagrams for Remler Apparatus and other useful information, including a table of inductance, capacity and wave length



Remler Type 330 Detector Panel. Price \$8.50



Remler Type 331 Amplifier Panel less transformer Price \$6.00



Remler Type 333 Amplifier Panel less transformer Price \$9.00

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