PIONEER BROADCAST STATION WQX at Schenectady is being dismantled in the near future to be replaced by modern semiautomated equipment. This famous station (which can be seen from the N.Y.S. Thruway) was first erected in the mid 20's. It followed an earlier station located in downtown Schenectady. The station pioneered in early high power broadcasting and one of the first to go crystal control. Early television and international shortwave programming also originated from the same site.

To record this historical occasion, several A.W.A. members have been invited to be on hand with their movie and still cameras plus a tape recorder. More valuable information for our files!

WEST COAST - old gear is becoming difficult to find in California according to Curley England; however, he admits that he recently added a Radiola Grand, Radiola X and a Federal 110 to his collection. He makes a suggestion that 8 or 10 of the top collectors in the country pool photographs of their gear and make a "Master Listing". Sounds like a good idea!

YEARS OF ACTIVITY - W2QTA made a survey at the last A.W.A. meeting and found the years of activity in radio varied from 9 to 56 with an average of 37.2 years. (Fairly close to OITC!) Charlie Peterson, x-7CW held the record having begun in 1905!

HISTORICAL SHOW on VHF produced by the A.W.A. was recently shown in the Boston area by Lou Rizoli, W1AAT. This show is not ready for general release since a few revisions are yet to be made. New material includes a historical 5 meter transceiver from W8FX plus info on OSCAR. Speaking of "Oscar", we understand that several of our members taped Oscar's H3 with W2OTH being the first in this area. W3AX tracked and heard the signal 36 different times - how's that for an OT!
ADVANCE NOTICE — our key historian W2QY has received word that her most recent article titled "THE EVOLUTION OF THE BUG" will be printed in "QST" magazine. Wayne hasn't set the date yet; however, keep an eye out for it since it is the only story ever written on the subject.

PIONEER WIRELESS STATION at Ketchikan, Alaska as described by W7OS in the February "Electronics World" adds another historical record for your file. The "QST BULLETIN" has an article coming up shortly by Howard describing an experience with a Federal ARC while working with Mackey Radio.

I.R.E. — our able historian, Phil Hatfield, W9QPS, presented an illustrated talk titled "Old Circuits - Old Receivers" at a recent I.R.E. Meet. We also note that Phil had an article in the January QST. An Engineer with wide experience, he is currently working on General Electric at Owensboro.

MARCONI TRANS ATLANTIC — by this time many of you will have received your QSL for contacting W1JNS - commemorating Marconi's first Transatlantic in 1901. The first to raise W1JNS in the Rochester area was our Vice-President - W2QY!

BOOK LISTING — Radio Historians — are you interested in a 11 page listing of old books on radio and electricity? Send us a large business size self addressed envelope with 8 cent postage and we'll send you the latest A.W.A list as compiled by W2QY.

SILENT KEY— we regret to note the passing of one of our members, Charlie Houck - K20F, x-8APD. An ardent amateur over a period of years - his chief interest was in low power DX. Charlie was associated with W2IX in the Rochester Police Radio Division.

ANTIQUE WIRELESS ASSOCIATION

A.R.L. Affiliate

"An amateur organisation interested in the history of wireless...."

Annual dues: (including the "Old Timers' Bulletin") $3 per year payable to: A.W.A. Treasurer Lincoln A. Cundall, W2QY 69 Boulevard Parkway Rochester 12, N.Y.

"OLD TIMER'S BULLETIN"

Editor: Bruce Kelley, W2ICE Main St., Holcomb, N.Y.

Pub. Editor: Larry Triggs, W2ICE

DIY SPARK STATION

Old time amateurs well remember SEA's spark DX. Signals from this station were heard in New Jersey, Hawaii and Alaska. The receiving equipment at left and center represents tops at the time. Note the audio iron or ER sausage tubes hanging from binding posts. The gap for the kilowatt spark is located in the box at the far right. Other dope on Howard Seefred can be found on page 2, Jan. '61 of "OT Bulletin".

MANY CALL LETTERS — you can't always tell a fellow's background by his name - but you can't go too far wrong when you list his call letters. Art Goodnow tells us that he was 9ACU, 9EOQ, 9Q02, 9QDDQ, 9JFEP, W1LV Ship: W3I, EZU, WFB, WRC, WCQ, WCZ, KDZJ. Coastal: W8QO. Broadcast: WIBO, WFRM, NJJD, KNW, and KEBM. Present call: W1KN and Director of Transmitter Engineering, Westinghouse Broadcasting Co., N.Y.C.

WAVELNGTH LETTER DESIGNATIONS

Most of the readers of the "Bulletin" are familiar with the letter designations for radar radio frequency bands such as L, S, X, K, etc., which came into being during World War II. I wonder how many can recall the World War I designations as used by the United States Navy and I believe also by the British Navy?

A partial listing of this old list is as follows:

<table>
<thead>
<tr>
<th>Wavelength (in Meters)</th>
<th>Letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>G</td>
</tr>
<tr>
<td>600</td>
<td>J</td>
</tr>
<tr>
<td>952</td>
<td>M</td>
</tr>
<tr>
<td>1200</td>
<td>N</td>
</tr>
<tr>
<td>1900</td>
<td>P</td>
</tr>
<tr>
<td>2400</td>
<td>Q</td>
</tr>
</tbody>
</table>

I am quite sure there was a letter for 800 meters but I cannot recall it nor can I find any record. Switches and dials on some transmitters and receivers were calibrated with the above letters.

"Bill" Gould, W1NP
**Collection to Museum**

I have donated my entire collection of old-time marine wireless gear to the new Marine Wing of the very impressive Museum of History and Industry in Seattle's McCurdy Park. This is a beautiful building and the new wing displays all kinds of relics of early days in marine circles in the Puget Sound and North Pacific areas. Complete marine engines, ships' wheels, old-time bin­macles; even an operating light beacon of the old Lighthouse Service days and now...pioneer wireless equipment.

In a way, I go with it. That is, it's up to me to suggest the arrangement of the display, provide copy for the identification cards and advise their furniture and mechanical repair men how to restore the attractiveness of the old-time gear. This I am glad to do as they have no previous knowledge of equipment of this type.

While it may not be possible to have the display available before June or July, due to future commitments on their space, it is believed that if sufficient interest is indicated by the public at large, it can remain as a permanent memorial to early wireless days.

I gave it up with perhaps a tear, naturally. But I felt that it was buried over here on this Island. No one ever saw the stuff unless they made a special trip or were among the many hams and old-timers who frequently drop in on me. I think the gear deserves even more than that and apparently the Museum concurred as their acquisition committee were most enthusiastic, as was the curator.

McCurdy Park is located right on Seattle's famous Scenic Boulevard and should not be hard to find, even for strangers. *7E* W0E, Mercer Island, Wash.

**Feedback Litigation** - Historians interested in the famous DeForest/Armstrong litigation re the feedback or regenerative circuit should read the October and November, 1961 issues of *WIRE and Radio Communication*. A series of two articles written by Ben Miesner tells of Lovenstein's work in the field of regeneration. He was a claimant, along with DeForest, Armstrong and others, to the invention of the regenerative circuit.

Paul Godley has been heard several times recently on 388 while visiting friends during his Florida vacation. Paul says he might get his ticket when he returns north so he can join his old friends again on the air.

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**Marconiana**

Not all the facts and details of Marconi's career and achievements are in print. Bits of information about the man and his work continue to percolate down to us by various pathways. Ye Editor will welcome any tidbits from our members to keep this column going.

**ITEM** - W2QY has been corresponding off and on with a plumber in St. Johns, N.F., who was the man called in by the Marconi crew in December, 1901, to fuse a solder joint at the ground rod prepared for the famous Marconi experiment of Dec. 12. Peter Edstrom is the man—still plumbing away in St. Johns at the age of 85! Writes Peter: "St. Johns, at that time, had practically no electric lights and no electricians. The plumbers being the only people trained to wipe or fuse a solder joint—and myself being young and nimble at that time—I got the job.

"My part was to solder a wire to a ground rod in a 75-foot well. As you may know, Cabot tower is built on solid rock 250 feet above sea level...that is the reason they had to blast and dig a long way down to get to water to make a good ground connection."

It is reported that it took Peter three hours to do the job at the bottom of the well—and that Marconi fretted the while, impatient in the fear that the work would not be completed in time for him to receive the signal as scheduled.

**ITEM** - Another W2QY correspondent helped Marconi write history of an even earlier day. He is John Ivens, 82, former able seaman in Her Majesty's Navy, now living at Okanagan Mission, B.C. Ivens was there when Marconi successfully transmitted signals from ship to shore in the Mediterranean in 1898. Watch for Iven's story in our next issue.

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**Oakland Radio Club**

March Meeting

Our club's latest version of the show titled "THE WORLD ABOVE 50 MC" will be shown at this month's meeting of the Oakland California Radio Club. A.W.A. members are urged to attend since they will have an opportunity to see some interesting historical VHF gear. - W6ELW
GE/ RCA RECEIVERS - the question has come up several times - when did G.E. make the last SC receiver for RCA? We believe the answer is with the "60" series in 1929.

Coincidental, the date is 10 years after the formation of RCA and the original agreement with G.E., Westinghouse, etc., to manufacture receivers under the RCA name.

ARMSTRONG/DE FOREST - the club's photographic group decided on Armstrong as their 1962 photographic project; however, they were unable to obtain sufficient photographic material. DeForest is now their choice since far more equipment and photographs are available. The show will be somewhat similar to the Marconi production of which many of you have seen.

RARE TUBE - acquired recently by Fred Penard is one labeled "Wireless Specialty Co." with a candleabra screw base, tubular, one lead out of top, rectangular flat plates and a grid on glass frame. He would like to know its origin. Fred also picked up an old German tube - a 30 watt, Type KS, with 3 pin base and large binding post on top.

NEW EQUIPMENT ON DISPLAY AT A.W.A.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Call Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Dictionary -1890</td>
<td>W2HSD</td>
</tr>
<tr>
<td>Tusa G.E. receivers</td>
<td>W2OCC</td>
</tr>
<tr>
<td>Rotary Gap</td>
<td>W2HE</td>
</tr>
<tr>
<td>Early tubes</td>
<td>X-3DM</td>
</tr>
<tr>
<td>1st Crystal used at WDX</td>
<td>W2SOTY</td>
</tr>
<tr>
<td>Crystal used at 2KAD (1927)</td>
<td>W2SOTY</td>
</tr>
</tbody>
</table>

N A A ROTARY GAP

WSFX is seen examining the rotary gap removed from old NAA at Arlington many years ago. The gap is one of the many choice historical pieces of gear one can see when they visit the Ford Museum at Dearborn.

TRANSFER word comes thru that Col. Shannon, W2Q, is now with the National Co. of Malden, Mass. Frank now proudly shows his "ole FKB, SWJ, NCOOK, RCA and other early National gear - hi!

SHAES-BOEDUCK COUPLER- WS2FS wants to know who made the Sears loose coupler? It resembles a Duck and has the lines of a Hurlock!

QST SERVICEMEN - our roster includes many active or retired members of the Armed Services: W1DAS, W2KX, W2KOO, W3Q, W4D, W4ZM, KE6A, X-B22 plus several others. A new member is Lt. Cmdr. J.W. Jones, DNS (retired) of Silver Springs, Md. "JW" started out with a hand wound spark coil and carbon needle detector pre-WW1. In the following years he operated H1JKW on 20 and 40 meters as well as at NPG. NPX, NPZ and NPL plus several ship stations. He is presently Vice-Chairman, Washington Chapter V.W.O.A.

LIVE STEAM - words get out that our A.W.A. Secretary, W2GE, is also the Secretary of the NEW YORK STEAM ENGINE ASSN! Kelley tells us that they have a large membership interested in the history of steam engines. Several of the members have as many as 10 to 15 large traction engines covering an acre of land!

FIRST TRANSATLANTIC WIRELESS PHOTOGRAPHS were transmitted between British Marconi and RCA at Marion, Mass. in November, 1924.
REVIEWS AND BOOKS

RFEE/XXR - Old timers will remember Dr. John Brinkley and his famous medical radio stations back in the 20's and 30's. The Doc started out by selling a form of sex rejuvenation from goat glands. Protests from the A.M.A. and newspapers forced him into using radio as a medium of finding more "suckers". His first station was KFXB in Milford, Kansas, which started to broadcast in 1923 - the heyday of broadcasting. The station gave medical advice and prescribed his patent medicine. The old F.R.C. voted to revoke his license in Sept. 1930. In the interim, the good Doctor almost successfully campaigned for the governorship of the state.

Losing his license in 1931, he moved to Villa Acuna, Mexico where he built a huge station, XER, with an output of 100,000 watts. He hit his peak in 1937 when he grossed $1,100,000 thru his patent medicine schemes. From that time on his decline was very rapid. He lost everything in the early 40's and died May 26, 1942 at the age of 56.

All old time broadcast listeners will remember the potent signal from his stations. (Review from August, 1961 issue of "TRUE" magazine.)

WIRELESS IN DIRIGIBLES - an exciting account of the first work in this field may be found in the Sept., 1961 issue of "True" magazine.

An adventurer and newspaper writer by the name of Walter Wellman started out by making two unsuccessful attempts to reach the North Pole by balloon. Undaunted by these failures, he aroused sufficient interest in a third venture - that of crossing the Atlantic Ocean. He equipped his motor balloon "America" with Marconi Wireless apparatus and signed on the well known operator, Jack Irwin. The transmitting range was approximately 50 to 75 miles and it was hoped to maintain communication all the way across the Atlantic via passing ships.

The venture started in the fall of 1910 and one of the first stations contacted was old "AX" at Atlantic City. Later they raised and passed on some traffic to "CC" at South Wellfleet. When 475 miles at sea the balloon got out of control. Unable to raise a passing vessel, the "SS Trent", Jack made contact by flashlight signals. The ship operator then turned on the wireless set and arrangements were made to save the members of the disabled balloon.

(Note: copies of these 2 issues of "TRUE" magazine can be back ordered at most magazine stores.)

OLD BOOK MARKET - an indication what historical books are selling for is the recent purchase of the following:

"WIRELESS TEL. & TEL." by Walter Massie (pub. in 1908) - $6.00. This book is autographed by the author and was obtained by advertising thru a national used book agency.

"LIFE OF SAMUEL F.B. MORSE" written by Samuel I. Prime. This rare book was obtained in a used book store for only $7.00. It is a large heavily bound volume of 776 pages with many illustrations and drawings. Excellent condition. Of great interest is that it was printed in 1871 (only 2 years after Morse's death) and is regarded by some as the landline historian's "bible".

JUVENILE RADIO FICTION article by WQGS produced at least one book that we know of for Phil. Lou Hardy, X-2QO sent him an early book titled "The Boy Inventor of Wireless Triumphs" which he purchased at an Orange auction for 10 cents!

"STRANGE ORDEAL OF THE NORMANDIER" is a book written by H.L. Tredree and published by Little & Brown Co. (1938). The author tells of his experiences as a Marconi Wireless Operator aboard a cargo vessel during the first war. Fascinating reading!

MAJ. EDWIN H. ARMSTRONG - a last reminder to buy the book titled "Man of High Fidelity" by Lawrence Leasing, J.B. Lippicott Co. 1956. We judge this book #2 along with "200 Meters and Down" as an absolute must for your bookshelf.

The book not only covers the life of Maj. Armstrong - but also tells of the development of radio from 1913 to present. A gripping story right thru to the tragic climax. Can be ordered at most book stores for $5.

TIP FOR BOOK COLLECTORS - when looking for historical radio material in used book stores don't overlook books on "Electricity" and "Telephones". Some excellent material on early wireless telephony (Collins) was recently found in a telephone book and rare photographs of South Wellfleet and Glace Bay in an old book on electricity!

GEORGE STERLING - WLAQ WOOC members had the good fortune recently of reading in their bulletin "Blabbermouth" a highly entertaining as well as informative article by WLAQ. George's government experiences started as a Radio Inspector and was followed by numerous appointments up the ladder ending as Commissioner of the F.C.C. Good reading material for the historian.
OLD TIME ADS

SELL OR SWAP Atwater-Kent breadboard Model 10 receiver in mint condition. Make offer. Want round globular audions, IF-501 and other early wireless gear. Send for swap list. WOXY Paul Giganti, 2129 San Carlos Ave., San Carlos, Calif.

WANTED - early commercial gear of any kind. Write San Corge W6M 215 East Angeles Crest Highway, Wrightwood, Calif.

SWAP - all kinds of radio magazines - want 1913 and 19th Electrical Experimenters, 1922 Radio Broadcasts and various issues of "Service" and "Successful Servicing". Joe Simpson, 85-39 152nd St., Jamaica (32), L.I., N.Y.

FOR SALE - recently purchased several copies of "American Electrician" dating from 1898 to 1905. Swap for? W2ICX SWAP - early QST, CQ and Radio magazines or will sell. Will pay cash if need be 1916, 1917, 1919 and 1920 QSTs. Also need Radio News for May, July, and Aug. 1943 plus Nov. 1944 and March and May 1946. Erv Rasmussen, W2XPM, P.O. Box 612, Redwood City, Calif.

WANT - Wireless Speciality AB-1375 Crystal BC receiver - also Weston 301 watmeters with approx. 0-8 and 0-150 volt ranges. Meters may be burnt out. Will swap. Fred Penard, 65 Maple St., Northport, Mass.


"A.W.A. WELCOME!" is the title of a new slide show now available without charge to A.W.A. members. It consists of 1/2 slides with 1/2 hour tape commentary. One can see all kinds of old gear, A.W.A. projects, photos of W2ZI, W3JJO and other historical collections. The show is designed for the amateur historian - NOT for the layman or for a club program.

FIRST WIRELESS MESSAGES of any distance were sent in 1885 by Dr. Mahlon Loomis. Distances up to 18 miles were achieved thru the use of lengthy aerials held up by kites. Transmitting was accomplished by breaking the circuit between the aerial and ground. A sensitive galvanometer was placed in series with the receiving aerial and ground. Transmission was accomplished thru quote "by producing a disturbance in the electrical equilibrium of the atmosphere - " (Patent #129971).

ORIGIN OF THIS RECEIVER - ?

Member Ralph Dorris is anxious to learn the history of this AIROPHONE crystal set made by the A.W. Bowman & Co. As you can see, Ralph has done a nice restoration job. Our guess is that it was probably made in the early '20s. If you know anything whatsoever about this receiver or the company that made it - drop him a line at 317 Wesleyan Place, Owensboro, Kentucky.

A.W.A. OPEN HOUSE and
OLD TIMERS LUNCHEON

is again part of the Western New York Hamfest, Saturday, May 12 at Holcomb, N.Y. An annual affair, the A.W.A.'s Historical barn Museum is open to all those attending the hamfest. A $1.00 luncheon is scheduled at 12 noon. This event has proven extremely popular in past years. To handle the large crowds, some of the equipment such as spark transmitters are brought outside and placed on tables for viewing and demonstrations. Everyone is welcome - no charge. See you May 12,

73, Geo. Batterson, W2GB President

BRITISH MARCONI REPORT - our Honorable Member and Historian in Chelmsford, Geo. Hopkins, sends his greetings to the A.W.A. He tells us that in December he attended a cocktail party at the Science Museum, London, to open a show in celebration of the Diamond Jubilee of the Transatlantic Signal. While there he met his old friends Capt. Round and C.S. Franklin.

NEW BOOK on the history of radio by Paul Phelan (brother of Tom Phelan - W2ZEP) should be ready for printing later this year. W2ZPO is furnishing most of the photographs.
Robert Morton - of Los Angeles is an old timer who has been thru the mill starting with needle-on-carbon detector around 1905, attended first wireless course ever offered at college (under Dr. George W. Pierce at Harvard), he talked Walter Massie out of two complete wireless sets for tests, worked for United Wireless during college vacations, wrote wireless articles for various magazines and newspapers; was instructor at private school; was involved in the Titanic/Carpthia disaster; performed pioneer research as Officer in Navy; close friend of Haraden Pratt, etc. If the A.W.A. had a monthly award for personal experience - "Bob" would be the recipient for this month. What is he doing today? He is a well known Attorney-at-Law - but he still cherishes his recollections of his early wireless days as a highpoint in his career.

Wayne Nelson, W4AY, is vacationing in the west this winter. He is still looking for dope on the Leutz receiver.

Certificate - U2QY has been approached to check into a suitable certificate for A.W.A. members. You may find one in your next "Bulletin" envelope.

Charles Williams, W7AM is winding up his U.S. tour checking into historical data and preparing for the exhibit at Seattle (more on this later). His travels included a visit to Melville Eastham (founder of Clapp-Eastham et C.) now retired living in Cambridge, Mass.

Clarence Tuska will shortly have an opportunity to see one of the first receivers he manufactured. W2ZI obtained the receiver from W2ECO, Harold Smart. Ed considers the receiver quite rare as is sur th Clarence will enjoy seeing one again.

Grote Reber, our pioneer radio astronomer whose hobby is checking old equipment, writes from Hobart, Tasmania. He tells of making some tests on an old Silver Marshall 122 kc. Amplifier (SM-122B) and finding it remarkably free from regeneration. He is looking for a BUSCO I.F. amplifier.

SOUTH WELLFLEET - rare 1" x 20" photographs of this once famous station were recently received by Fred Parsons and Irving Venniya. It is believed the picture was taken well before 1910.

NO OLD Timers’ Nite at Trenton, N.J. is the latest word from W2ZI. He says; however, there may be one next year. We hope so....

JOSEPH HENRY
AND HIS LAB ASSISTANT
by the Bookworm

Joseph Henry, of the Smithsonian Institution, was one of the most outstanding of physicists and experimentalists in the period when fundamental advances were being made in the study of electricity and of alternating current phenomena. The name of the unit of inductance, the henry, is a recognition of his pioneering work in solving many of the problems encountered in rendering alternating current understandable in terms of Ohm's Law. Henry's voluminous work included the discovery, in 1842, that the discharge of a Leyden jar is of an oscillatory nature. In one of his experiments, he succeeded in demonstrating that the field generated by an oscillatory discharge was capable of producing magnetic influences in a steel needle over considerable distances. This was a forerunner of the discovery of magnetic radiation and it is noteworthy that this work was prior to Maxwell's epoch-making mathematical analysis, which made it possible for scientists to direct their experimentation toward predictable phenomena.

There were several other great physicists and mathematicians in this period and their names will live in the history of science along with that of Joseph Henry. In one respect, however, Joseph Henry outclass- ed them all. A certain government employee, quartered in the White House, occasionally visited Henry at the Smithsonian and assisted him in a number of his experiments. Joseph Henry had, without a doubt, the most distinguished Laboratory Assistant in history: Abraham Lincoln, President of the United States.

Joliet, Illinois - the Joliet Amateur Radio Society will have their "Old Timers' Nite" May 1. They plan to honor three well known old timers - W900, W91L, and W99S. Nothing definite as yet - but there is a fair chance that Frank Hingard, W9- EM1, will provide A.U.A. program material. Remember the date and place: Joliet, Ill. May 1st!
This is the traveling "showcase" of the A. C. Gilbert Co., New Haven, Conn., which was used to promote Erector sets and Gilbert BC radio kits and components in 1922 and 1923. Gilbert operated WCJ in New Haven, the sixth licensed BC station in the U.S. Gilbert receivers in the car tuned to WCJ, gave thousands of Americans their first listen to radio broadcasting—and interested a lot of them into going in for their own gear. A sign over the railway's demonstration car read: "A wireless telephone for every home." That's A.C. himself standing near the rear steps. Note the impressive "flat top" antenna.

The first WCJ transmissions were in code, sending out 5-minute news bulletins twice a day, repeated at different speeds so beginners could learn the code. Later, phone transmission gear was installed—and the Gilbert railway car was sent out on the road. All was fine until the car got as far away as Boston or Albany. No signal. So each day WCJ telegraphed the car crew the exact script of the day's broadcast and one of the crew hid in the car's toilet with a microphone and read off the broadcast just as the station sent it out, so that visitors would not be disappointed. They weren't. But it did mean someone had to spend a lot of hours in the can.

The A. C. Gilbert Company's experience

in radio has historical implications beyond WCJ and the railway car. They had started early—with crystal sets. Somewhere in the beginning, Clarence D. Tuska, one of the founders of A.R.R.L., got out of the Signal Corps and took over Gilbert's radio operations. When vacuum tubes came in, Gilbert's sets were said to be the equal of any on the market. According to A. C. himself, in his autobiography,* "the manuals accompanying our sets, written by Clarence Tuska under my direction, were really models of instruction in a new and very complicated field. The 120-page book put out in 1922, for instance, took up the history and theory of wireless and radio, gave complete instructions in building simple receiving and transmitting sets, then went into that newest and most fabulous development, the vacuum tube, or the 'audion'."

During the early 20's, Gilbert listed dozens of wireless and radio items in their catalogs, from parts, antennae and tubes to complete receivers and transmitters. They were the first to provide cabinets or enclosures for radio sets.

It wasn't long before RCA was suing many manufacturers using "the Fleming tube" for infringement. A.C. Gilbert was one. A.C. decided that although he was sure he would win, he'd save the cost of litigation and put it into something else he knew more about—kids' mechanical toys. "I just gave the whole thing to Tuska," wrote A.C., "—all our rights and everything. He tied in with Marlin...and founded the Tuska Radio Company. They went out of business, as did so many of the early firms, but Tuska joined one of the big companies. He has been an important witness in many lawsuits over those early patents, for he was in it from the beginning."