

GILFILLAN BROS.

Radio Manufacturers

by Floyd A. Paul

This is Part I in a series covering the Gilfillan Company, a pioneer radio and electronic manufacturer. The author wishes to acknowledge valuable support and assistance from Ed Reitan.

Gilfillan Brothers, Inc., was one of the first, one of the best known, and one of the largest radio manufacturers in the West. The company brought several technological innovations to the market place. The company was flexible and durable, and this story tells of their growth and success as a radio manufacturer.

In 1912, Sennet W. Gilfillan graduated from Stanford and purchased the assets of his uncle's smelting and refining business in Los Angeles. After some financial difficulties as a fledgling business he invited Jay G. Gilfillan, his younger brother, who had been in Cuba selling his uncle's products, to join him as a partner.¹ The company refined and sold precious metals including gold and platinum products to dentists and jewelers.

By 1914 the firm became the Gilfillan Brothers Smelting and Refining Company. In 1917 they incorporated under that name. The firm had some bumpy roads but grew with S. W. Gilfillan as president and Jay G. Gilfillan as vice-president.

Shortly after 1915,² it became apparent that the automobile business had vast potential, and the Gilfillan brothers started production of automotive ignition components. A manufacturing facility was established at 11th and Wall Street under the supervision of Howard Goedemeister. In their search for a suitable material for distributor covers, the brothers recognized the feasibility of a moldable plastic compound invented by the Belgian scientist, Dr. Baekeland. Quantities of the plastic powder were ordered, molding presses were purchased, and Gilfillan became the first plastic manufacturer on the West Coast. The product line, under the management of Johnny Leslie, expanded to include distributor caps and blocks, contacts, magneto brushes and points, automobile electrical tools, storage battery terminal clamps, taps and dies, wrench kits, and generator brushes.



S. W. Gilfillan



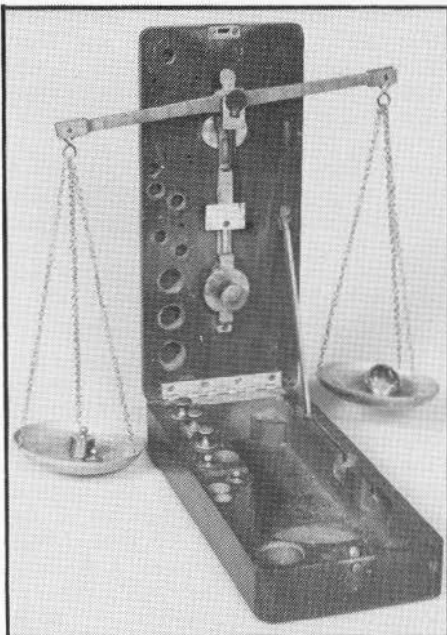
Jay G. Gilfillan

Mrs. Jay G. Gilfillan recalls that there was a severe recession in 1920 and 1921. Sales were off for the company. The results of an earlier trip to the Orient by her husband and herself brought orders and sales for automotive parts from Java, Australia and New Zealand that probably saved the company from closing its doors. In 1921 they changed their name to Gilfillan Brothers, Inc. The company had been making quality molded bakelite products and electrical parts for the automotive trade and was beginning a twenty-six year era of radio innovation, design, production and marketing efforts.

The company changed its name to Gilfillan Corp. in the 1950's. The company was sold to International Telephone and Telegraph Corp. (ITT) in 1963 and exists today as ITT Gilfillan, a producer of Command and Control Systems and Air Traffic Control Systems, with their related radar sensors.

The following listing shows that throughout its history Gilfillan has made an extensive and very diverse line of products:

Smelting and refining of precious metals,
 Precision electrical contacts,
 Aircraft turnbuckles for Jenny Trainers,
 Electric drills, grinders and motors,
 Auto ignition parts,
 Precision bakelite moldings,
 Auto spotlights and tools,
 Tap and die sets,
 Radio parts,
 Radio kits,
 Battery radios,
 AC radios,
 Automobile radios,
 Inertial shaver
 Radio-Phonograph combinations,
 Home sound motion picture systems,
 Household refrigerators,
 Aircraft mechanical and hydraulic parts,
 Television receivers before WW II,
 Ground Control Approach (GCA) Radar,
 Sophisticated Long Range Surveillance Radar Systems.



Balance scales used by Jay G. Gilfillan, Sr. circa 1912. Used to measure the weight mass of gold, platinum, etc.

The company had a rich life and this article describes products, activities, events; identifies key people; and shows the role Gilfillan Brothers, Inc. played as a radio manufacturer between 1922 and 1948.

The founders, S. W. and Jay G. Gilfillan, continually adapted the company product line to the economic conditions of the time. It is estimated that Gilfillan Bros., Inc. profitably sold 1,500,000 radio receivers between 1924 and WW II. In addition, the Gilfillan product line was technologically innovative with:

- Introduction of the Neutrodyne in 1924 (West Coast),
- Shielded, constant gain Neutrodyne in 1926,
- Economical compact midget set in 1929-30,
- Television receiver sales in 1939 (West Coast).

Gilfillan Radio People

Key names identified as contributors to the Gilfillan radio era are many. Mr. William W. Lindsay, Jr. was Chief Radio Engineer in the 1920's. He continued with Gilfillan for some decades and worked on the first Ground Control Approach Radar design in the 1940's.

Frank Jones was a design assistant in the 1920's. Charles Zingle was Chief Radio Receiver Engineer during the 1930's. He had two assistants, William Myers and Manuel Gonzales. Mr. Iver Thorntenson was a production line manager of sets in the '30's. Mr. R. J. McNeely was Sales Manager in the early '30's and was succeeded by Peter Heizer. C. Frederick Wolcott was the Chief Television Engineer before WW II. He was assisted by Leonard Woodis.

Radio Parts

With their manufacturing capability for the precision molding of bakelite automobile ignition products, Gilfillan began production of radio parts in 1922. The author has several of these parts, including three knob and dial parts in original boxes. A full page ad in the October 1923 edition of *Radio News* contains many part pictures. A listing of all known parts and their part number is:

Variocoupler 150-700 meters	R125
Variocoupler 150-500 meters	R650
Variometer 150-700 meters	R100
Variometer 150-500 meters	R675
Condenser, 23 plate	R375
Condenser, 43 plate	
Audio Frequency Transformer	
Potentiometer, 190 ohm	R700
Primary Inductance Switch	
Panel switch	
Tube socket, panel mount for 201	R300
Tube socket, small, for 199	R500
Tube socket adapter for 199	R925
Detector unit	R475
Detector Amplifier Unit	
Filament Rheostat	
Vernier Rheostat	R800
Molded knob, 3" dia	R150
Black or Brown	
Molded Knob, 2 1/4" dia.	R175
Black or Brown.	

Gilfillan parts could be purchased singularly, as a group, or in a kit. Mr. A. Jennings Brown³ remembers in his early teen years purchasing and assembling Gilfillan kits into radios. Increasing demand for these products was accompanied by distributor requests for completely integrated radio receivers. This resulted in the introduction of Gilfillan's Neutrodyne receivers in 1924. Even after coming to market with the GN series of battery sets, Gilfillan continued market-ing parts and kits.

The Independent Radio Manufacturers Inc²

RCA controlled most radio circuit patents in the early 1920's. RCA refused to license more than a few companies to build receivers using the popular regenerative circuit. To protest the RCA monopoly and to explore alternatives, a number of companies banded together in 1922 to form the Independent Radio Manufacturers, Inc. (IRM). Gilfillan Bros. Inc. was one of the fourteen companies in the IRM. (The author has some doubt whether Gilfillan was part of an original fourteen-member consortium or whether they bought out a company called RSL and became a part of the consortium. Regardless, by the end of 1924 Gilfillan was one of the fourteen members.) The IRM commissioned Dr. L. A. Hazeltine of Stevens Institute of Technology, to develop his 1918 neurtalization concept into a commercial radio receiver. The completed neutrodyne circuit was then licensed to IRM members. (See Hazeltine licensing ad taken from Ref. 4.) This circuit was used in Gilfillan's first radios which were known as models GN-1 and GN-2. The receivers were introduced to the public in 1924 and were manufactured at Gilfillan plants in Los Angeles, Kansas City and New York.

Two table models, the deluxe cabinet GN-1 and the economy cabinet GN-2 were sold for \$175 and \$140, without accessories. In addition to the five tubes there were other accessories such as "A" and "B" batteries, horn speaker and outdoor antenna. These added up to \$100 to the cost. It should be noted that in 1924 a Ford Runabout automobile sold for \$265.

Gilfillan Sets

The *Radio Collector's Guide*⁵ was useful in preparing this paragraph. Sketchy information indicates Gilfillan made kits. It is not known how many kits were made but an ad in *Radio Broadcast* magazine of April 1925 indicates sets, kits and parts were made in their three factories.

In 1924 the GN series was started and into 1926 the following were made: 1, 2, 3, 4, 5 and 6. A portable set was made in 1925. Neutrodynes continued to be made into 1929. The following models were

made in the given years: 1926 — 10, 20, 25, 30 and 40; 1927 — 60, 70, 80, 90, 55 and 65; 1928 — 33, 44, 66 and 77; 1929 — 100, 101, 102 and 103. By 1930 screen grid sets came in as models 105, 106 and 107. During the 1930's an estimated 100-plus models and styles were made. Sets continued to be made into the 1940's and in 1948 Gilfillan Bros. Inc. turned out their last set.

**Constant Gain
(Uniform Gain)
Neutrodyne — 1926**

A fault of the early Neutrodynes and other TRF sets was non-uniform gain over the broadcast band. Variations in gain of three-to-one were not uncommon. Solutions to a constant gain design were pursued by the Hazeltine Corp. and others in the industry. One of the solutions proposed by Alan Hazeltine was an elegant R.F. tuning coil design using plate circuit neutralization.⁴ This design, which effectively varied the coil's primary to secondary turns ratio to keep the gain constant (no moving parts) was first used in Gilfillan receivers, models 30 and 40. These receivers were manufactured in late 1926 and were priced at \$350 and \$235 respectively. Although the design performed well, the R.F. coils proved to be expensive to manufacture due to the complexity of the multiple windings and it was replaced by other designs of comparable performance and lower manufacturing costs.

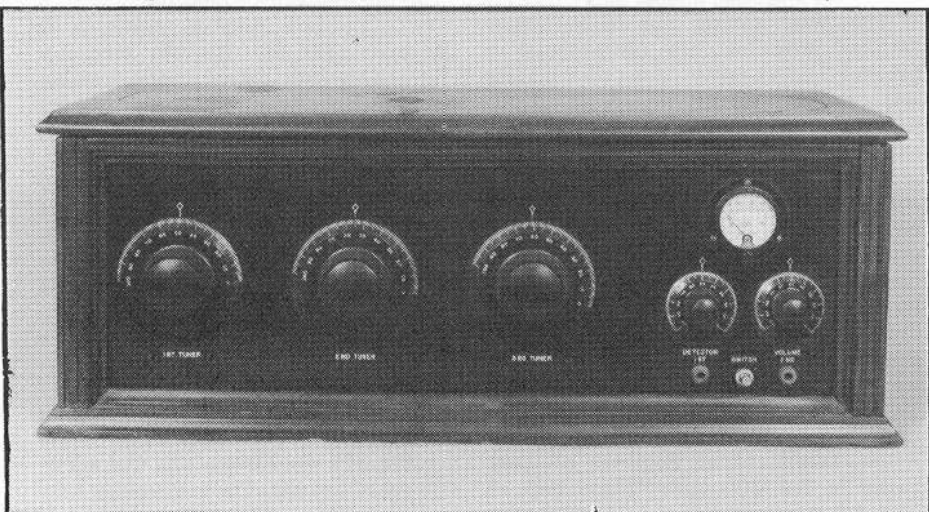


Model GN-3 Neutrodyne. \$75, 1925.
Four 199 Tubes.

Gilfillan's Exclusive RCA License

In 1927, the Radio Corporation of America (RCA) brought Hazeltine and the Independent Radio Manufacturers into court claiming that the Neutrodyne circuit infringed upon early RCA neutralization patents. Several individual manufacturers were sued as test cases by RCA, including Gilfillan. The courts eventually ruled in favor of RCA.²

Ted Phillips⁶ reports that sometime in the 1950's David Sarnoff was the principal guest at a luncheon at the California Club in Los Angeles, hosted by Sennet Gilfillan. During his luncheon remarks Sarnoff recalled a visit by S. W. Gilfillan circa 1927 when he showed up at Sar-



Model GN-2 Neutrodyne. \$140, 1924.
Five 201A Tubes.

noff's New York office, and was in the reception room demanding to see Mr. Sarnoff. After several unsuccessful attempts to route S. W. Gilfillan to a staff person the secretary showed Gilfillan into Sarnoff's office. He was feisty and looked David Sarnoff in the eye and demanded, "I don't care what you do, you are not going to put our company out of business! We are going to make radios in Los Angeles." Sarnoff was impressed with young Gilfillan's brashness and finally remarked, "We might as well give this company a royalty license, there's nothing to worry about in California anyway."

Gilfillan Bros. Inc. was given an exclusive territorial rights to RCA patents.² The agreement made Gilfillan the sole license holder in eleven western states. All other western manufacturers were sub-licensed by Gilfillan.⁷

1928-1929-1930 Marketing Strategy

(Author's scenario)

After obtaining the RCA licensing authorization, Gilfillan decided the western states were a better targeting market for their products. By giving up their out of state facilities in Kansas and New York they concentrated on the eleven western states with a population of 12,000,000. This turned out to be an excellent marketing strategy for the 1930's.

Pioneering Midget Sets

The West Coast, and in particular Gilfillan Bros. Inc., was instrumental in bringing midget radios (also called mantel sets) to the market in 1930. *Radio Industries* magazine, in their editorial column of March 1930, said, "Midget receivers are being manufactured to a considerable extent by manufacturers out on the Pacific Coast. Although such a product seems to be very salable out there only one eastern manufacturer has thus far introduced such a model." Plymouth Radio Corp. and Jackson Bell, among two manufacturers on the Coast, were building mantel sets in March 1930. There were dozens of radio manufacturers in Los Angeles in the early 1930's. Ralph Lamm, Chief Engineer of Troy Radio in the '30's said, "There were at least 52 radio assemblers in Los Angeles in the 1929 to 1933 time period."⁸

Contract Manufacturing

Although Gilfillan made and sold its own name brand sets, they did a large business in making chassis and complete sets for dozens of other companies in the 1930's. The arrangement for designing and manufacturing sets differed considerably in the early days. Some companies requested that Gilfillan design the set, manufacture the chassis, install the completed chassis in a cabinet and ship the finished product. Other companies designed their own circuit, had Gilfillan build a "whole" or "part" of the chassis and ship the chassis to the ordering company's shop where completion took place. Gilfillan could provide a full service or a partial service as long as some or all of the chassis was built at the Gilfillan plant. To satisfy the RCA licensing requirements that Gilfillan make the set in its plant, all kinds of arrangements were made in the early days. Some companies used space in the Gilfillan plant for their assembly line (some had partitioned sections at the Venice Blvd. plant). Many companies used 1815 Venice Blvd. as their formal company address. Sets made in the plant bore a licensing decal of Gilfillan Bros. Inc. Evidence of companies using the Gilfillan facility in early years comes from a *Radio Industries* article of July 1930. Mr. Dickover, Los Angeles Branch Manager, Nathaniel Baldwin, Inc. is interviewed and the following is reported:

"in Los Angeles, assembly is made for the Baldwin receivers. This little model outfit, number 50, is bringing about the two-set home — the mantle model — So, although we are producing the regular console model, we have also started production of the number 50 receiver at our factory location, 1815 Venice Blvd., where our minimum production, commencing June 1, will be 400 to 500 completed sets every 24 hours with a payroll of some 40 technical men, not including the administration staff. we will use two screen-grids, one single stage audio, using the 245 amplifying tube and a 280 rectifier tube. The entire set is fully licensed under both RCA and Hazeltine patents. L.A. manufacturers are producing approxi-

mately 22,000 sets per month in May."

A March 1931 *Radio Industries* "West of the Rockies" news column item: "Gilfillan Bros. Inc., besides their own trade-name sets, also sub-licenses at least half of the California midget sets." Jackson Bell had a very popular cathedral set called "Peter Pan." According to Mr. A. Jennings Brown, a standard order for Peter Pan chassis was 1,000 units. It would take Gilfillan two days at 500 chassis per day to make those sets.

Licensed and Unlicensed Companies

Companies having their sets made at the Gilfillan plant paid Gilfillan (and hence RCA) royalties. When new small set manufacturers started up they often made sets in their garages or rented a one-room building, thus avoiding royalty payments. When these little companies grew in size and became a significant set producer, they came under surveillance. When an unlicensed set producer reached 500 sets per day he would most likely be served with papers for a law suit. Some companies counterfeited duplicate license tags (metal plates) and illegally affixed them to their sets. RCA had local legal representatives who policed illegal practices. Occasionally problems arose between licensed and unlicensed manufacturers. A monthly column by Dr. Ralph Power in the 1931 May issue of *Radio Industries* sums it up nicely in this way:

"All is not well on the battle front of radio in California of the south. Seems as though dissention has entered the rank and file, to say nothing of the big shots. Representatives of fourteen licensed Los Angeles manufacturers met in solemn conclave and bitterly resented the fact that others, unlicensed, managed to get identical parts at practically the same cost as those who are licensed and pay a royalty fee.

"The licensed boys claim that those who dodge the license fee have the edge on them to the tune of about \$3.10 a set. It is understood that in the royalty scramble RCA gets about 85 cents; Latour⁴ and Hazeltine 25 and 35 cents respectively; and Gilfillan scoops the rest for supplying the space to

his sub-licensees. It seems, too, as though RCA has dashed out with a new ruling which compels the sub-licensees to manufacture their complete chassis at the Gilfillan Brothers plant, instead of a few operations to make it legal, as formerly. This increases the ante for the licensed boys because of the additional haulage, administrative force and so on....."

Contracting Names and Trade Names (1930's)

Gilfillan Bros. Inc. had two manufacturing plants on the West Coast. The primary plant was in Los Angeles at 1815 Venice Blvd. The other plant was in San Francisco and in March of 1931 they moved into their factory at 1315 Howard St. Previously they had been at 921 Mission St. The San Francisco plant made chassis for bay area companies, including Pioneer, Remler and Rola.⁸ Los Angeles area companies ordering chassis under the Gilfillan license and at the 1815 Venice Blvd. address included:

Advance Electric (Falck)

Breting

Cardinal Radio Mfg.

Davison-Haynes (Angeles)

for Montgomery Ward

Echophone

El-Rey Radio

Flint

Herbert Horn (Tiffany Tone)

Jackson Bell (Peter Pan, among others)

Keller-Fuller (Radiette)

Kemper

L. A. Radio Mfg. Co.

Mission Bell (Aeronautic)

Packard Bell

Patterson

Pierson DeLane

Royale Radio Co.

Shelley (Peter Pan)

Superior Radio Corp.

Troy

Trojan.

Trade name sets made at the Gilfillan plant (company names not known) included:⁹

Air Scout

Chanticleer

Commander

Diane

Gilbert

Reflections

Roamer

Sierra

Tarzan

Westone.

GILFILLAN BROS.

Radio Manufacturers

by Floyd A. Paul

Part II

Gilfillan Bros. also made house brand radios (complete radios, not just chassis) for J. W. Robinson (Autocrat), Sears, Barker Brothers (Invincible, later called Templetone), and Western Auto Supply Co. (Western Air Patrol). Western Auto Supply Co., with headquarters in Kansas City, was founded and owned by George Pepperdine. He bought complete radios from Gilfillan and marketed them through his Western Auto Supply Stores in the West. Mr. A. Jennings Brown estimates well over 100,000 sets being made and sold to them during the 1930's.

1930's Product Line

Midget designs (also called mantel or compact) characterized the first part of the '30's. The new midgets halved the average price of a radio in one year. Cathedrals were also a popular styling. Short wave designs showed up in the early '30's. multiband sets were made in both compact and console design. Auto radios were added to Gilfillan's line in 1936.

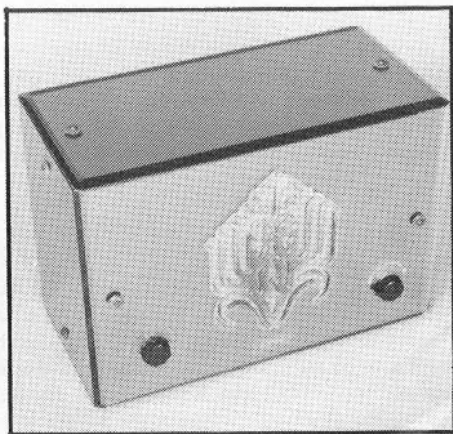
Mr. Joe Miles¹⁰ recalls it was about the year 1937 that Gilfillan started its own radio wood cabinet shop of some 15,000 square feet in a separate building. From that time on, Gilfillan built its own cabinets in house.

Receivers featured motorized and pushbutton tuning, electric eye tuning and remote control. One unique styling that was experimented with in the 1934-35 time period was mirrored table models. They were first made by Troy Radio, followed by Gilfillan⁸ The top, sides and front of the radio were made from beveled panels of slightly tinted Belgium glass. Colors varied from a subtle purple to a darker blue. Sandblasting etched the panel to label the knob, dial scale functions and Gilfillan logos, and also etched out the speaker grille lattice.

²In 1939, S. W. Gilfillan, impressed with the increasing quality of programming from television station W6XAO, decided the time was ripe for a Gilfillan television receiver product. The company commissioned the Hazeltine Corporation to provide the drawings for a complete

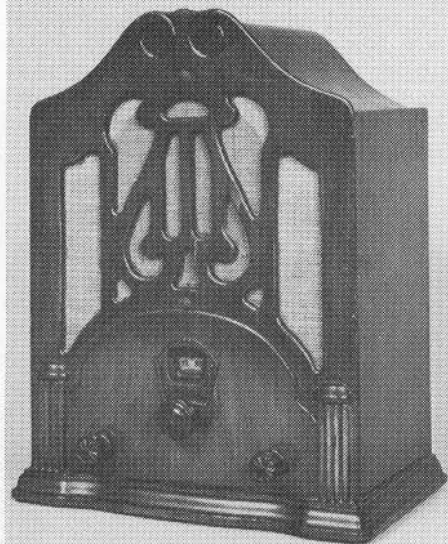


Model 105 Console, 1929. \$187, 9-tube Screen Grid Set.



Compact Mirror Radio, 5-tubes, circa 1934.

receiver and for Hazeltine to assist with engineering support. Sennet then called Bill Myers into his office and announced, "We are in the television business." Myers was asked to assemble a TV laboratory in 90 days. The model G,12 was first announced in a *Los Angeles Times* ad by Barker Brothers on December 10, 1939. It was particularly pioneering for a small company to venture into the complexities



Model 5, 1933 (\$31.95) 5-tube Super-hetrodyne.



Model 63X, All-Wave, 3-band. 1936.

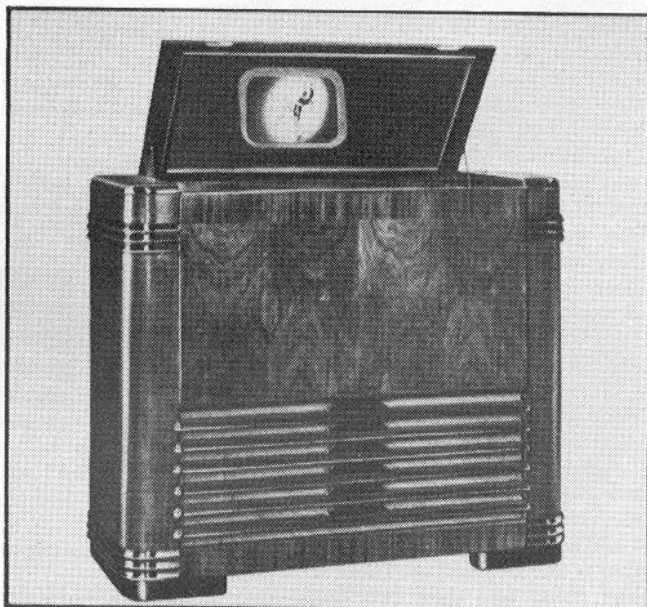
and economics of television receiver manufacturing. Only the largest Eastern companies (RCA, Dumont, G.E., Andrea and Westinghouse) attempted to market receivers.

Gilfillan Employee Memories

From Roy Culver, retired, living in Glendale, California, came the following: Roy went to work for Gilfillan in 1936 and left in 1939. He was a receiver assembler. He tells of the assembly line in 1936 to 1939 when he was a lead man on

Model G12

Radio/TV Receiver,
1939.



one of the three lines in the downstairs assembly room at 1815 Venice Blvd. Packard Bell had one ten-man assembly line; Gilfillan and Troy had another. (Upstairs were Patterson and Breting.) As a lead man, Roy would go to the stock room and draw out 100 parts, for example, of each item needed to make a radio (his example was a Packard Bell model 5AC which had 6X5, 6SQ7, 6K6, 6SA7 and 6SK7 tubes). He would distribute these parts among the ten positions. Chassis would come to Roy as the first man of ten, with only the sockets installed in the chassis. Roy would mount the power transformer, IF's and solder the transformer leads to the proper terminals. The chassis would be given to the second man who did a comparable amount of "time" work. That time element was about one minute. By the time the tenth man finished the chassis, about ten minutes has elapsed. The tenth man gave the completed chassis to an eleventh man who plugged it in, turned it on, aligned the IF's and checked it for proper operation.

The completed and tested chassis was sent to the cabinet shop for installation in a cabinet, packing and preparation for shipment. Roy estimates a small set would have consumed less than 30 minutes in assembly, test, packing and preparation for shipping. Base pay rate in 1936 for assemblers (all men) was 40 cents per hour. In 1937 the base rate was raised to 50 cents, a 25% increase. Assemblers were paid on a piece work basis so they were given the base but could earn more. Roy said when one particular Packard Bell model No. 120 (a console) was being assembled, an assembler would get \$1.00 an hour. He remembers the set run was 100 units at a time. Years later Roy met Mr. Al Ellsworth, Chief Engineer for Packard Bell in the 1937 time period, and asked why they paid more than the going rate for that particular set. Mr. Ellsworth replied that there was a good profit margin in that set, the assemblers always did a good job, and "why rock the boat."

Margaret Lockhart, who joined Gilfillan as a bookkeeper in 1926 and retired as Treasurer in 1966, recalls the early 1930's.² "Things became very difficult during the depression. There were regular one dollar and then two dollar cuts in

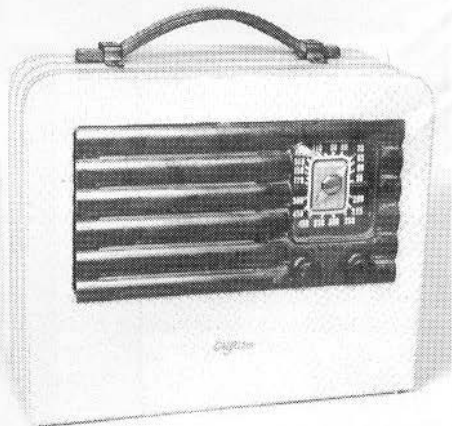
salary, but S. W. Gilfillan was able to keep everyone with the company through the darkest days. We were not allowed to buy new pencils. I was able to find a holder at a dime store which allowed us to sharpen and use the old pencils down to their very end."

1940 to 1948²

In November, 1940, the Gilfillan factory was completely destroyed by a fire, with a loss of \$500,000. Although Gilfillan had to set up temporary quarters in nearby buildings, they got back into production within five days. Temporary production was quickly resumed in a building of the Harvard Military Academy



Model 119 Superhetrodyne Console
(1940-1941)



Model 5L. 1941-1942 5-tube AC/DC.

at Venice and Western. Margaret Lockhart recalls how cold, damp and drafty those buildings were. As an unbelievable achievement, radios were produced in time for shipment to stores for Christmas. No employees lost even a week's pay as a result of the disaster.

Mr. Joe Miles¹⁰ remembers that Gilfillan turned out 10,000 radios between December 1 and Christmas of 1940 in the Harvard Military Academy buildings. He also recalls a contract to Gilfillan by Sears in the spring of 1941 while production was still in progress at the Harvard Academy. The order was for some 1,000 table model sets. Although Gilfillan completed the order they did not take additional orders because the profit margin of the order was too little. By June 1941 a new streamlined architectural radio was built at 1815 Venice Blvd.

Until radio production was stopped in 1942, because of the war, Gilfillan continued to produce a full line of compact table, AC/DC, portable battery and console radio phonograph models. The epitome of the pre-war line was a thirteen tube model 33, with an automatic record changer phonograph, three band short-wave receiver and disk record cutter to allow home recording. One unique pre-war product was "Synchro-Sound." This device allowed home movie buffs to synchronize their movie cameras and projectors to their Gilfillan record cutters. The result was the earliest practical sound motion picture system for the home.

World War II interrupted radio receiver production for several years. Gilfillan's attention was given to GCA radar. The MPN-1 unit has been called the most complicated radar to be produced during WW II — with 705 tubes and weighing twenty-two tons.

Toward the close of WW II, S. W. Gilfillan resumed planning for the production of radio receivers. The OPA approved Gilfillan's proposed manufacturer, dealer and customer prices (\$14.40, \$17.67 and \$26.78 respectively for a 56A model) for an economical line of five-tube table model AC/DC sets. That radio line was the model 56 series, first sold in 1946. The series included the walnut cabinet model 56B and streamline styled model 56C.

Gilfillan continued to employ circuits provided by RCA and Hazeltine Laboratories. Gilfillan production between 1946 and 1948 included portable battery receivers, pushbutton table radios, radio-phonograph combinations, modern-design consoles and combination television-radio-phonograph receivers.

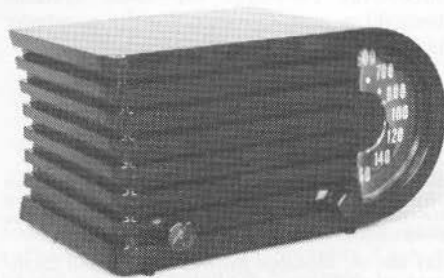
One of the most unique post-war receivers built by Gilfillan used the Fremodyne circuit, developed by Hazeltine. In conjunction with Hazeltine engineers, Wolcott and Woodis developed the Gilfillan AC/DC, AM/FM model 68F receiver which used miniature tubes. The Fremodyne was a super-regenerative-superhetrodyne using slope detection for FM. Only one additional tube, added to a conventional five-tube AM radio provided a complete FM radio. The single tube (12AT7) performed five functions:

1. Superhetrodyne local oscillator
2. Converter/mixer
3. Super-regenerative IF amplifier
4. Converter of FM to AM
5. Detector delivering audio output.

The model 68F Fremodyne was one of the lowest cost (\$34) FM receivers built at that time.



68F AM/FM Table Model. 1948 Fremodyne Circuit, 6-tube AD/DC.



58M Table Model. 1948 5-tube AC/DC.

In 1948, shortly before magnetic tape recorders became feasible, Gilfillan introduced two consoles which included wire recording capabilities. Wire recording transports were supplied by Webster-Chicago, with the driving electronics designed by Gilfillan. The model 108-48 included a ten-tube AM/FM radio while the 68-48 was AM only.

With the post-war stability of radar systems confirmed by a large order from the government in 1948, Gilfillan opted to drop its consumer product line. It continued during the 1950's to experiment with color TV just in case it had to resume consumer electronic products.

Conclusion

Intense technological changes were taking place in the two decades between 1920 and 1940. Gilfillan Bros. Inc. was a focal point for many of these changes on the West Coast. Gilfillan turned their molded bakelite parts capabilities of the teens into molded products for radios. This capability grew into completed radios. Neutrodyne and screen-grid tuned radio frequency designs emerged into superhetrodynes. Midget sets were introduced on the West Coast. Contract manufacturing of radio sets maintained the company during the depression. Those turbulent years saw many radio names rise rapidly then fall even more rapidly but Gilfillan Bros. Inc.'s radio business continued throughout the '20's and '30's and was a profitable business. The 1940's were no longer a contracting period for Gilfillan because other manufacturers were obtaining their own RCA licensing agreements.

Gilfillan had been innovative and flexible in merchandising and had helped bring new ideas to the market place in the '20's and '30's. Their interest in GCA and successful contracts for radar systems brought a new direction for the company in the 1940's.

REFERENCES

- (1) Mrs. Jay G. Gilfillan, Los Angeles, Calif.
- (2) Unpublished document "The Gilfillan Historical Radio-Television Exhibit," assembled by Ed Reitan, ITT Gilfillan Inc. open house held on May 31, 1980.
- (3) Mr. A. Jennings Brown, retired, and Chairman of Gilfillan Corp. Board before its sale to ITT. He is the nephew of Jay G. and S. W. Gilfillan.

(4) From the book, "The Early Days of Wheeler and Hazeltine Corporation," by Harold Wheeler, 1982. "Latour Corporation was a company formed to hold the many U.S. patents of the French inventor, Prof. Marius C. A. Latour. In 1925, an 80% interest was acquired by Hazeltine Corp. and later it became a wholly owned subsidiary. Its principal value was as a supplement to Hazeltine's patent portfolio in negotiating a comprehensive royalty agreement with a licensee."

(5) "Radio Collector's Guide, 1921-1932," by Morgan McMahon.

(6) Mr. Ted Phillips, Past President of Gilfillan Bros., Inc., Los Angeles, Calif.

(7) From the book, "Invention and Innovation in the Radio Industry," by W. Rupert Maclaurin, 1949. "The policy that the RCA group adopted in 1927 was to offer licenses to '\$100,000 customers' but without quota or price agreements. The royalty rate was fixed at 7½% of the net selling price. The first licenses were for tuned radio frequency receivers only, excluding the much more efficient superhetrodyne set which RCA had recently developed and reserved for itself. By 1928 RCA was forced to change this particular policy Nor did the policy of attempting to restrict licenses to '\$100,000 customers' last for long. This minimum royalty rate was never actually accessed, but it had the effect of restricting licenses to the larger companies."

(8) Mr. Ralph Lamm, retired, Chief Engineer of Troy Radio in the 1930's, Camarillo, Calif.

(9) Mr. Phil Barr, SCARS member, La Mirada, Calif.

(10) Mr. Joseph H. Miles, retired, Lake San Marcos, Calif. Vice-President of Gilfillan in 1947 and President in 1956.

Photos courtesy ITT Gilfillan Archives



Model 105 Console (1929)
\$187, 9-Tube Screen Grid