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THE HORN SPEAKER

Christmas '82

RADIO NEWS FOR MAY, 1932

¶ *Chatty bits of news on what is happening before the microphone. Personal interviews with broadcast artists and executives. Trends in studio technique.*

PETE DIXON AND ALINE BERRY IN "RAISING JUNIOR"

Backstage *in* Broadcasting

By Samuel Kaufman

CHARLES "BUDDY" ROGERS, youthful star of the talking screen, is now under the exclusive management of the NBC Artists' Service. George Engles, NBC vice-president, announces that Buddy has deserted the screen to organize and conduct his own orchestra and sing over the network. At this writing, it is expected that Rogers will be identified with one of New York's fashionable hotels in his new radio and musical enterprise. Buddy plans to have about thirteen pieces in his orchestra. He has already done some singing in talking picture work and has been well received.

NOT so long ago, Peter Dixon was on the publicity staff of the NBC. He and his wife, Aline Berry, are now featured on the daily NBC "Raising Junior" programs, which are written by himself. Dixon, a native of Canada, started his business career as a newspaper carrier in Texas and, after a year, became a cub reporter. It was this experience that may have prompted his "Cub Reporter" programs which preceded "Raising Junior." He went from the newspaper to an oil tanker running between Texas and Mexico, serving as mess-boy and second cook. This was followed by six months in a steel shipyard in Canada. He then returned to newspaper work, serving on numerous dailies from Arizona to New York during a nine-year period. In order to do a series of stories for an Oklahoma newspaper, he became an actor for a week at a Tulsa theatre. It was there that he met Miss Berry, ingenue lead in the local stock company, and they were married five months later. His "Raising Junior" series will be two years old next September.

IN recent months a rapidly mounting number of radio stars of the NBC and CBS have been making successful appearances on the vaudeville stage. In many instances, the vaudeville bookings have proven sensational, breaking many attendance records. The chief detriment to the growth of radio artists' vaudeville bookings is the fact that radio bookings cannot be neglected and the artists must always be on hand for scheduled broadcast periods. Thus, many network stars, whose popularity would warrant lucrative personal appearance contracts in numerous cities, are forced to remain in the "key" city for their radio broadcasts. Vaudeville appearances, in those cases, are limited to theaters in the local and suburban area of the originating studio location. It is only at considerable expense that networks can arrange to pick up programs from various distant cities a radio troupe may visit on a vaudeville tour. Nevertheless, this is being done more and more frequently. Late in May, the Camel Quarter Hour cast, the CBS daily period featuring Morton Downey, Tony Wons and Jacques Renard's Orchestra, will complete a twelve weeks' vaudeville tour of the East and the Middle West, having broadcast the daily feature from each city without interruption.

WHEN radio sprung to the fore as a leading entertainment medium, entertainers were drafted from all walks of life to fill microphone roles. The stage, the screen, the concert hall, the press, the pulpit and other mediums contributed personalities to the art. But radio talent fortunately did not fall into a routine classification. Novelties and innovations must constantly be introduced on air programs to attract and hold the listeners' interest. One of the scheduled microphone performers was Count Felix Von Luckner, the "sea devil," who stars in the CBS Sunday series, "Adventuring with Count Von Luckner." In the programs, the Count personally relates the stories of his strange adventures at sea. Occasionally, dramatic casts enact episodes of his thrilling career.

BUDDY ROGERS

MORTON DOWNEY JACQUES RENARD TONY WONS

VON LUCKNER

THOSE two droll "gloomchasers," F. Chase Taylor and Wilbur Budd Hulick, "Colonel Stoopnagle and Budd" of CBS fame, recently launched a new series of semi-weekly programs, under the sponsorship of the Procter and Gamble Company. Since they've been on the air, the pair have skyrocketed to popularity with their unusual style of mimicry and humor. And those who know them, learn that "Colonel and Budd" are just as funny away from the microphone. Following the success of his radio efforts over Stations WKBW and WMAK, in Buffalo, Taylor resigned his position as vice-president of a Buffalo stock brokerage firm in the fall of 1930 to devote his entire time to radio. Before that he was in the lumber business with his father. His partner, Hulick, has been a college football player, a saxophonist, a crooner, an announcer, a continuity writer, a radio production man, an actor, a soda clerk and a commercial representative for a telegraph company. Since the pair came together on the radio, they won much attention for their vocal imitations of celebrities. Taylor is noted for his imitations of former President Coolidge, Colonel Charles A. Lindbergh and Evangeline Adams. Hulick is best known for his radio impersonations of Rudy Vallee, Seth Parker, Bing Crosby, Cab Calloway and Morton Downey. Their constant buffoonery before the microphone makes their series one of the funniest on the air.

LITTLE JACK LITTLE—vocalist, pianist and composer—has been signed by the CBS and is now heard over that network exclusively. Thus, Little has joined the growing list of former NBC artists now in the stellar ranks of the CBS. Before coming to the NBC Little gained his initial radio prominence in Cincinnati. He is being featured on a morning series over the CBS every day except Sunday. He frequently features songs of his own composition. Little was born in England twenty-eight years ago and came to the United States in his boyhood. He attended school in Iowa but suddenly decided that song-writing would be more profitable than a college degree. His composing led to radio work and he soon gained wide attention through his microphone performances.

JACK LITTLE

The History of the Development of the United Fruit Company's Radio Telegraph System

Part III

Early in 1909, it had become obvious to the Company officials that radio communication was of such permanent importance and their radio-construction programme had assumed such proportions that it required additional trained radio personnel. Mr. Musgrave therefore invited Mr. George S. Davis to join the Company's organization as his assistant. Mr. Davis secured his release from the Navy Department, and joined the Company in September, 1909. His first work was to organize the radio department as distinct and separate from the electrical department, and to rebuild the Cape San Antonio station, to complete the installation of the Fessenden radio sets on all of the Company ships and to supervise the experimental work and tests being conducted at the New Orleans station. What is believed to be the first commercial use of the famous Fessenden heterodyne invention was between Cape San Antonio and New Orleans during 1910 and 1911. New and improved receiving apparatus was installed at all stations at about this period, and additional transmitting apparatus installed at both Port Limon and Bocas del Toro.

In the latter part of 1911, Mr. Musgrave resigned from the Company and went to Alaska, returning about two years later to Seattle, where he died. To his persistence, in the face of discouragements and construction difficulties always encountered by the pioneer, is largely due what is to-day a very important link in commercial communication facilities between the United States and Central America. Upon the resignation of Mr. Musgrave, Mr. Davis was appointed General Superintendent of the Radio Department, the headquarters of which were moved from New Orleans to New York.

Also in this year the United Fruit Company acquired an interest in the Wireless Specialty Apparatus Company, established in 1907 for the purpose of exploiting the radio inventions of Professor Pickard. The Company had been paying high prices for its radio equipment, and its activities had grown to a point where radio laboratory facilities became essential for developing the ideas of its own personnel and particularly so that it could, in a measure control the design of radio apparatus particularly fitted to withstand tropical conditions. Since 1911 the Wireless Specialty Apparatus Company has supplied all of the United Fruit Company's transmitting apparatus up to 5 K. W. power and all of its receiving equipment. The United Fruit Company is now purchasing its high powered transmitting apparatus from the Radio Corporation of America. The General Electric Company later became associated with it in the Wireless Specialty Apparatus Company.

By 1911 certain parts of the New Orleans and Cape San Antonio stations had become more or less obsolete, and, as they did not fulfil all of the exacting requirements of the Company, it was decided to select a new and permanent station site at New Orleans where a more modern and powerful station could be erected, to rebuild and re-equip Swan Island in its entirety, and to establish a new high-powered station at Santa Marta, Colombia. Accordingly, a contract was made with the Marconi Wireless Company of America to furnish for each of these stations 50 K. W. 500-cycle rotary synchronous spark transmitting apparatus.

At New Orleans the site selected occupies twenty acres of ground upon which were erected four steel masts of the guyed Marconi type, 320 feet in height which permitted of the erection of a directional antenna measuring 300 feet by 600 feet, with an effective height of approximately 275 feet. The station buildings were of concrete and consisted of operating house, power house and machine shop.

At Swan Island the original site was enlarged to permit the erection of two additional 250-foot towers and an antenna similar to that at New Orleans. The height of the two original towers was increased to 250 feet. The construction of the new Swan Island station, on account of its location and lack of facilities, was no small undertaking. It was necessary to provide two 75 H. P. kerosene oil engines, and also auxiliary engines and generators for operating the small power radio set, as well as to provide electric current for the refrigerating plant, machine shop and also the beacon light which the Company maintains for shipping. It required approximately two years to complete the new station.

The Santa Marta station was identical in every respect to that of New Orleans, but here the construction difficulties were no greater than are usually encountered in tropical countries.

The three new stations—New Orleans, Swan Island and Santa Marta—were placed in commission during 1912 and 1913 and are still in operation. Direct communication is maintained between New Orleans and Swan Island, the latter station acting as a relay point for stations in Colombia, Costa Rica and Honduras, as well as a relay point between Jamaica, Cuba and Central America.

In 1914 the transmitting apparatus of the New Orleans station and the interior of the power house were damaged by fire. No time was lost by the Company in restoring this station and putting it on the most modern basis possible, which included the installation of 60 K. V. A. 500-cycle rotary synchronous spark transmitters.

It was during this same year that a hurricane swept over Swan Island and blew down one of the towers, which was immediately rebuilt. In the following year a hurricane, which reached a velocity estimated at 130 miles per hour, blew down three of the Swan Island towers. Although the buildings, due to their steel, concrete and asbestos construction, were not seriously damaged, it was several days before the apparatus could be placed in commission and work resumed, using an antenna strung from the stubs of the towers. An idea of the unusual force of this hurricane may be gained from the fact that it blew down practically all of the cocoanut trees on the island, some of which had withstood the hurricanes and high winds of twenty years or more.

As a result of experience, it is the Company's idea that its radio stations should be so constructed that they will function at all times regardless of hurricanes, floods and earthquakes and can be relied upon when all other means of communication fail. Although the towers

(*Continued on page 4*)

THE RADIO STATION AT SANTA MARTA, COLOMBIA
Showing the power house, operating house, and residence for employees

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THE ANALYSIS OF RADIO RECEIVER SYMPTOMS

OPERATING NOTES

By CHARLES WACKID

THE following is an account of some of the peculiar problems encountered in servicing well-known types of receiving sets:

Atwater Kent Models 80, 82, 85 and 89

Several of these models were brought in for repairs recently, the complaint being "volume control not functioning." We went over the sets completely, checking the voltages, volume control, etc., but found everything O.K. We then checked the circuit and found that the volume control varied the cathode potential of the A.V.C. tube, as illustrated in Fig. 1. On inspection we found a high resistance connection between the oscillator tube cathode-prong and the socket. The defect was remedied by cleaning and tightening the socket prongs.

Another complaint in the models 82, 85 and 89 was poor sensitivity, which was traced to the A.V.C. tube, a type '24. To test this, remove the type '24 A.V.C. tube from its socket, with the set tuned to a station and with the volume control set at maximum; if the volume increases when this tube is removed, then the tube needs replacing.

The next "pain in the neck" was an Atwater Kent "89." The complaint was noise. An inspection of the set proved that the noise was developed in the set itself. It took us three hours to find this trouble which was a noisy type 35 variable-mu tube.

Marconi Models 1930 Standard, Junior and Senior

The Canadian Service Man will come across these sets quite frequently and unless pointers are shown to him, he will probably be baffled for a while. In all of these models the complaint of "no reception," when everything apparently checks O.K. is most likely due to compensators going out of adjustment. The remedy, of course, is to realign the circuits. This defect in the Junior models may also be due to a dirty variable resistor which tracks with the tuning gang. Cleaning the resistor with graphite will at once restore the volume.

Pierce-Airo Model 524

The next "sticker" was a 524 Pierce-Airo Mantel model. The "complaint" was motorboating. After being on for about five minutes the set would break into a loud motorboating that would almost drive you out of the house. The trouble was found to be in the bypass condenser-block. There was a high resistance connection between the condenser-block ground and the chassis ground. The location of this condenser is shown in Fig. 2.

Philco Models 96 and 296

No screen-grid voltage on the second and third R.F. tubes is due to an open 200-ohm resistor feeding these tubes. As this resistor is molded into one unit with a bypass condenser it makes it very hard to locate unless one has worked on these sets before. The position of the unit is illustrated in Fig. 3.

Philco Models 70 and 90

Complaints of cutting off after being on for about five minutes in these models was found due to defective pentode tubes. Frequent complaints of weak reception also were reported; the trouble was cleared up by replacing the A.F. coupling capacitors which were open.

Brunswick Model 15-S

In this model weak reception was caused by a high resistance connection to the control-grid of the second R.F. tube.

Sparton 931 Series

No plate voltage on these models is usually due to a shorted plate bypass condenser. In replacing this condenser always replace with a 400 volt working condenser, as the ordinary ones frequently break down after being installed a few days.

Victor 1928 Model (Chassis by Bosch)

These models may be greatly improved by simply replacing the grid leak with a 1 meg. unit. The volume in some cases has been increased 100 percent.

Stewart-Warner 950 and R-100

In replacing the '24's in these models with the new quick-heater tubes (type 24A) the circuits will oscillate at the higher frequencies. This condition may be remedied by adding more capacity across the source of screen-grid voltage, as shown in Fig. 4. Such trouble as this involves is well repaid by the increase in volume.

Improving the King 6J

As there are a great number of these sets still in use the Service Man can net quite a substantial profit by revamping them in accordance with the circuit at B, in Fig. 5. The procedure is simple: The "antenna clarifier" is done away with, and a "tone control" is substituted in its place. The volume control, R, which fortunately has a value of 10,000 ohms, is shunted across the antenna and ground, and the center arm connected to the control-grid of the first tube, thus making that tube an untuned input unit. This system greatly increases the volume and eliminates one tuning control. We have remodeled quite a number of these sets in this manner and the owners have been more than satisfied with the results.

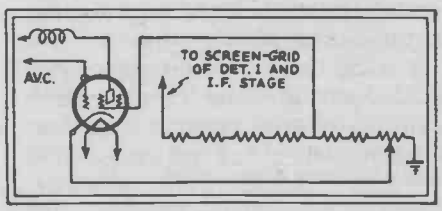


Fig. 1
Cathode circuit of the A. V. C. tube.

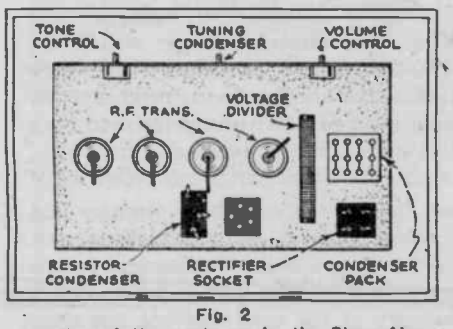


Fig. 2
Location of the condenser in the Pierce-Airo.

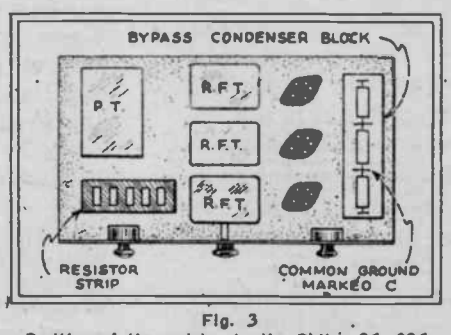


Fig. 3
Position of the resistor in the Philco 96, 296.

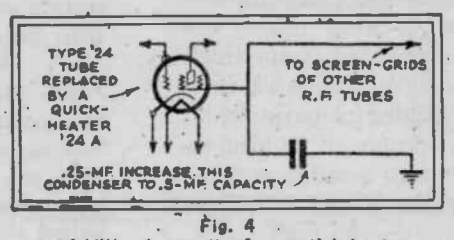


Fig. 4
Additional capacity is essential here.

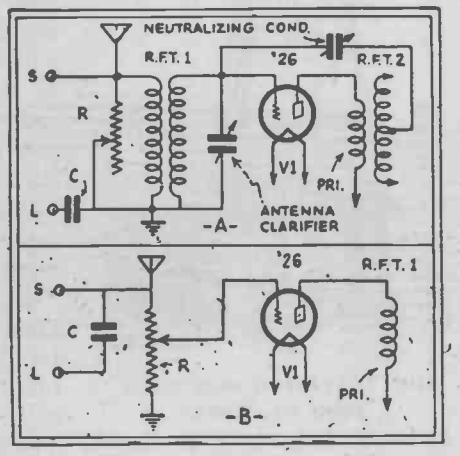


Fig. 5
The King model 6J may easily be improved upon by removing the antenna "clarifier" and substituting a tone control in its stead; and the volume control shunted across the antenna and ground posts as stated by the author.

Adjusting the Zenith Model 103, 14-Tube "Hyperheterodyne"

In spite of the fact that this receiver possesses a plurality of tuned circuits, its adjustment presents no difficulties to the Service Man equipped with a good service oscillator. The circuit of another superheterodyne of particular interest to the Service Man is that of the Zenith model 103 receiver; reference should be made to this diagram, which was published in the March, 1932 issue of RADIO-CRAFT, *page* 61.

In re-aligning this receiver, it is possible to use the oscillator without an output meter, since the tuning meter on the set is connected to show variations during all adjustments of R.F. and I.F. circuits; the greatest swing to the right representing maximum output. However, if the output meter is available with the oscillator, this should be used, since it is more accurate.

The six tuned I.F. circuits are adjusted as follows: Remove the clip from the control-grid of the first-detector; and then connect the service oscillator to the control grid cap of the first-detector (through a .00025-mf. condenser), and to the chassis. The set oscillator tube is to be removed for this test. The first-detector plate screw, which will require adjustment, is the one furthest to the *left* when viewing the chassis from underneath (with the control shafts at the top); this is the adjuster of condenser C5.

The Hyperheterodyne is easily adjusted for ordinary 10 kc. selectivity in the I.F. circuit; or for 5 kc. band-pass, if exceptional selectivity is desired to reduce or eliminate whistles due to two stations heterodyning.

The first inductance (primary of L5) is tuned for maximum deflection of the output meter at 175 kc.; the secondary is also tuned to 175 kc.

Next, the primary of L6 is tuned to 170 kc. *when 10 kc. in band-pass is desired*, or to 172.5 kc. if *5 kc. band-pass is wanted*. The secondary is next tuned to 180 kc. *for 10 kc. band-pass*, or to 177.5 kc. *if 5 kc. is desired*.

The balancing of L7 is exactly the same for both primary and secondary as L6.

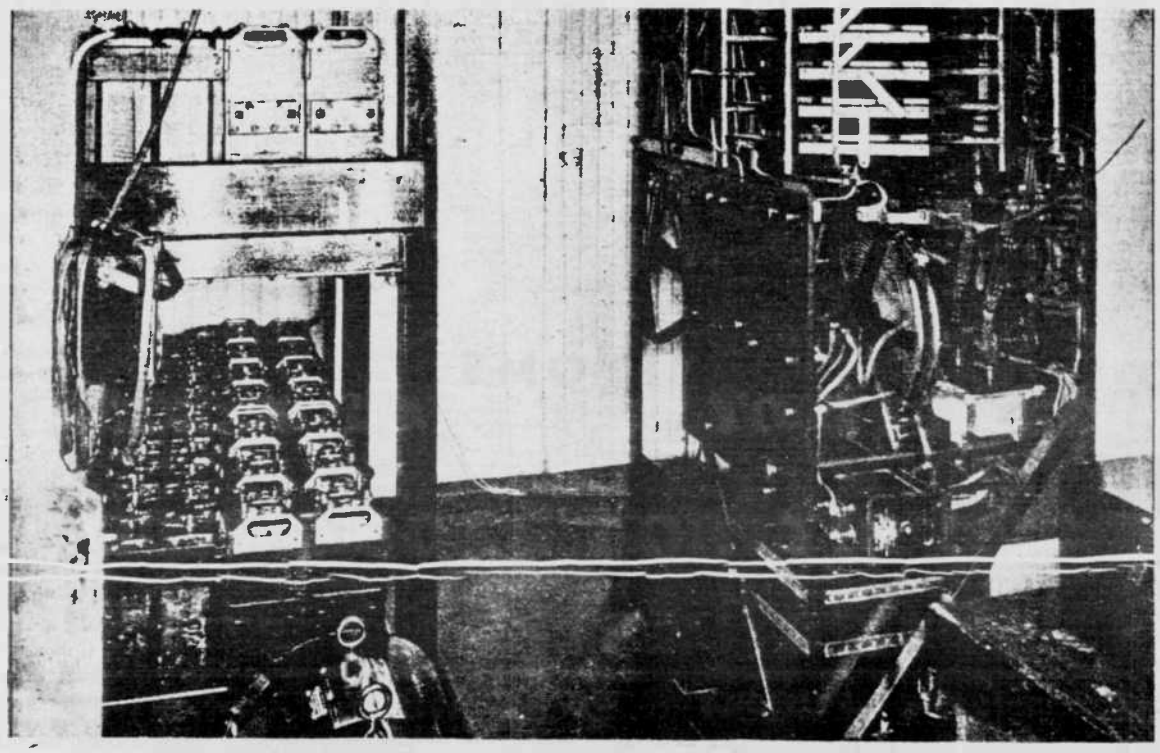
This procedure completes the I.F. adjustments for 10 kc. or 5 kc. band-pass, as desired. The I.F. amplifier may be balanced at 7½ kc. in cases where the decrements or resistances of the tuned circuits are such that they are naturally broad. The service oscillator connections are removed from tube V3 and normal connections are restored.

Next, the set's R.F. and oscillator tuned circuits are adjusted. The service oscillator is connected across aerial and ground of the receiver, and is to be adjusted to 550 kc. The high-frequency trimmer condensers for the input band-selector, the R.F. secondary, and the first-detector secondary, are now tuned for maximum deflection on the output meter. The set oscillator high-frequency trimmer is next adjusted for maximum indication. It may be necessary to change the adjustment of the other trimmers in order that the signal from the service oscillator may be observed (or heard in headphones).

To effect the concluding adjustment of the oscillator section, it is necessary that the low-frequency padding condenser C8 be adjusted for the greatest swing of the meter while rocking the dial back and forth "across the signal." The service oscillator is still tuned to 550, the same as when the high-frequency trimmers are being resonated at the low-frequency end of the tuning scale.

These steps are followed not only with the Zenith model 103, but also with any other superheterodyne of the same general design.

In adjusting superheterodynes having a special oscillator-condenser designed to track 175 kc. above the antenna signal *without* the use of a padding condenser, the R.F. section is tuned to maximum deflection after the condenser has been adjusted to the number of dial degrees for the particular antenna signal, which in this case is generated by the oscillator. After the R.F. sections have been adjusted, it is then only necessary to adjust the trimming condenser of the oscillator to maximum swing on the output meter.

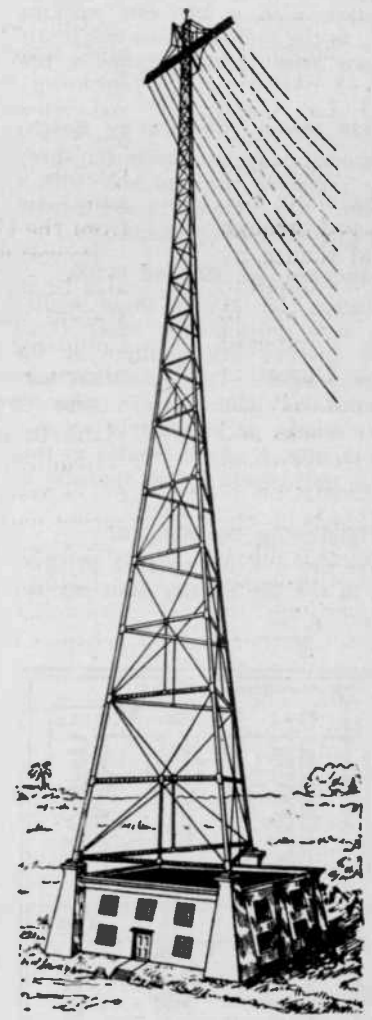


GENERATOR ROOM ON THE S. S. "ULUA"

The motor-generator may be seen in the foreground to the left. Directly behind it are the two banks of Edison storage batteries used for radio as well as lighting in emergency. To the right is the 2 K.W. transmitting outfit which is automatically controlled by switches located in the operating room

and buildings at both Cape San Antonio and Swan Island, as well as New Orleans, were designed to withstand the average hurricane, the experience with hurricanes at those places indicated that a much heavier construction and a different design should be used. They therefore called in Mr. A. W. Buel, consulting engineer, of New York, who had been associated with the design and construction of the Company's railway bridges in Central America. In coöperation with Mr. Davis, he has designed and the Company is now erecting, towers which will withstand wind forces up to 140 miles per hour. These latest towers, which the Company has adopted as standard, are 420 feet in height, are self supporting and triangular in shape, and have at the top a bridge arm 150 feet across. The towers are designed to be installed with a span of 1,100 feet and to carry an antenna of 20 wires, each 1,000 feet long.

It is hardly surprising to find that all steamships of the "Great White Fleet," in addition to providing for the special comfort of passengers, have been equipped with the most modern safety devices and are prepared to meet almost any emergency. One of the precautions thus taken was to install on each steamship storage batteries as an emergency power source for operating the radio transmitter, and for an emergency lighting system to be used in case of failure of the main dynamos. With characteristic thoroughness, Mr. Davis selected this equipment by a process of elimination, the main considerations of which were reliability of operation under adverse conditions, and the fact that emergency power should be such as would enable the radio operator to obtain it instantaneously for the radio equipment as well as for the emergency lighting system.



THE "EGYPTIAN MONOLITH" TYPE OF TOWER

Especially designed for the United Fruit Company to withstand wind forces up to 140 miles an hour, and now adopted as standard. These triangular towers, 420 feet in height, are self-supporting and have a bridgearm 150 feet across. They are designed to be installed with a span of 1,100 feet and to carry an antenna of 20 wires, each 1000 feet long

Mr. Davis states that storage batteries seemed to come nearer these requirements (for auxiliary power purposes) than either steam or internal combustion engines, in that they could be brought into use by merely throwing a switch on a switchboard.

The installation of such an elaborate equipment is not compulsory but was made possible by the broad policy of the Company to leave nothing undone, regardless of the expense involved, for the safety and convenience of its passengers and crews. It was the first company to recognize the value of complete storage battery equipment in connection with the operation of the main radio apparatus on board ship, and to install on its ships a complete emergency lighting system operated from storage batteries. All of its steamships will finally be equipped with the Pickard radio Pelorus, which will enable the captains to determine their bearings from the radio beacon stations now being established by the U. S. Department of Commerce.

In 1914, the Company abandoned the old Burrwood, La., station and erected a new plant at a point nearer the mouth of the Mississippi River. The Burrwood station was originally intended for marine work, but, on account of its ideal location—from a radio receiving standpoint—in the marshes bordering on the Gulf Coast, the Company contemplates making it its principal radio receiving terminus in the United States, and from here remotely controlling the high-powered transmitter in New Orleans.

At the present Burrwood station there are two 250-foot towers set on a span of 650 feet, a combined operating house and residence, and a power house. The only site available for this station, or in fact for any station near the mouth of the Mississippi River, is in the swamps extending for miles back. The towers rest on piles, as do the buildings and sidewalks. This station has thus far withstood the high winds encountered during the hurricane season in the Gulf. It offers the most direct means of communication between the Southwest Pass of the Mississippi River and New Orleans.

In 1913 the Tropical Radio Telegraph Company was organized as a subsidiary of the United Fruit Company to handle the radio business of its steamships and of its stations in the United States. The activities of this subsidiary company have since been extended to cover Honduras and Nicaragua.

In 1914 the Tela Railroad Company (a subsidiary of the United Fruit Company) opened up the banana district around Tela, Honduras, and a radio station for communication with Swan Island was constructed for that company. A year or two later a similar station was built for the Truxillo Railroad Company (also a subsidiary of the United Fruit Company) at Puerto Castella, Honduras. Both of these stations, communicating as they do exclusively with United Fruit Company stations, are part of this company's radio system.

The partial destruction by hurricanes of the Swan Island station and the total destruction of the Cape San Antonio station was enough to discourage the average company from attempting to build against them, but these difficulties were finally overcome and the Company now has stations which it believes are hurricane proof in every sense of the word.

The report of the final destruction of the Cape San Antonio station by the 1915 hurricane is illustrative of the type of men employed by the United Fruit Company at its stations, and of the force of these storms. The following are extracts from the report made by John A. (Jack) Cole, one of the old-time radio operators who was at that time in charge of the Cape San Antonio station.

About 3:00 P. M. on September 13th, I took a barometer reading and noted that it was unusually low, about 29.60. At 4:00 P. M. I was in communication with Swan Island and ascertained that his barometer was also low, and suggested to him that we get special weather observations off to the Weather Bureau at once. I immediately sent these messages to the Weather Bureau via New Orleans, repeating them again on the night schedule. Everything was made in readiness to withstand a storm and I also made up monthly reports together with the Weather Bureau report in order to have them ready if anything happened. These were fortunately saved and were later forwarded from Havana.

On the morning of the 14th the barometer was still dropping and I got in touch with the ships who gave me their reports and observer messages. The barometer was falling and the wind increasing and a few minutes after communicating with Swan Island, the wind increased in velocity and blew down a portion of the aerial. In the meantime, repairs having been made, storm warnings had been sent to all ships and were being repeated at intervals. About 9:00 A. M. the entire aerial was blown away and from that time on the wind blew stronger and stronger and about 11:00 A. M. was blowing with hurricane force. The Cuban Government wind gauge had by this time been blown away, but I judged the velocity of the wind was not less than 100 miles an hour and the barometer still falling.

Our kitchen was the first to go, then the gas plant, warehouse and roof of water storage plant were blown down, and some of the iron roofing carried for miles into the woods.

Next the tower, which had been guyed with four 1" steel cables, broke in two about half way up, breaking the guys which blew straight out with the force of the wind.

The roof of the operating house was next blown off and the windows and doors blown in. Myself, the cook and engineer were inside at the time and we then took shelter in the engine house. The operating house, although of steel construction on concrete foundation, was moved about 8 feet off of its foundation. The roof and floor of the veranda were wrenched from the house, but the house itself stood, although badly damaged.

The engine house, where we went for shelter, stood only about twenty minutes after we got there. This being the last house, we started for the woods.

The radio log entry of Mr. Cole at this juncture tells perhaps more vividly than anything else could what happened.

"Part of antenna blown away," reads one entry; "made repairs". A little later another entry reads: "Antenna gone." "Storehouse gone." "Operating house gone." Then a fourth entry records a similar catastrophe to the engine house.

The final climactic summary reads:

"Everything gone, we are going to the woods."

Then he buried the station records and the radio log, and, with R. C. Attaway, the engineer, started for the woods about 400 yards distant. Continuing, Mr. Cole says:

stumps. After being there for about an hour, there was a lull. The wind subsided and we returned to the station. We found that the Cuban Government barometer (the United States Government barometer was destroyed early in the storm) which has a scale graduated to read from 27.0 to 32.00, was down to the lowest mark; in fact, the indicator was against the pin at 27.6. I do not know how much farther it would have gone if the pin had not been there.

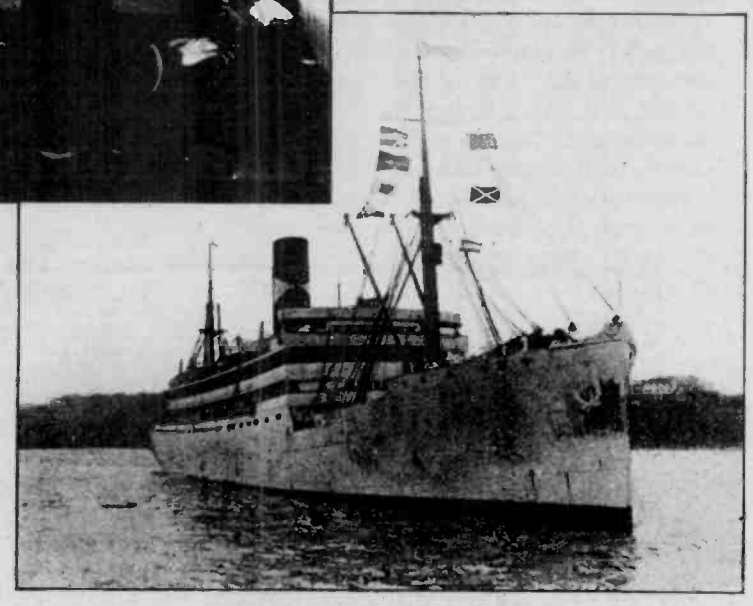
When I found that the barometer was as low as it would go, and the wind again increasing, we decided to go to the lighthouse, three miles away. This is a stone structure and we thought it would stand. In the meantime the wind had gotten stronger than ever. It took us about four hours to reach the lighthouse, which we did at 7:00 P. M., having had to crawl most of the way amidst flying sand, timbers, falling trees, etc. On our arrival at the lighthouse we found that the prisms had been blown in, putting the light out of commission. We found there the wreck of a Honduranian schooner. The captain had come in as close as he could get, but before he could get a boat out, the anchor chain parted and the vessel started out to sea. All hands jumped overboard and somehow got ashore. The vessel was blown to sea and disappeared in less than 30 minutes.

We spent the night at the lighthouse and returned to the station on the 15th, finding that all provisions, furniture and kitchen utensils had been destroyed or buried under the sand. About 10:00 A.M. a native family, carrying five dead bodies, arrived at the station on their way to the lighthouse. This family, named Soto, who had lived in this locality for three generations, lost five of their number during this storm.

We endeavored to clean up a bit and get a place to sleep, but the mosquitoes, gnats and crabs which invaded the house, would not permit.

On the 18th I hired a small sailboat and started for Arroyos, 50 miles distant, but a few miles out sighted a Cuban revenue cutter, which took me on board and landed me at La Fe at night, from which place I proceeded to Havana.

RADIO OPERATOR'S ROOM
On the "Great White Fleet" *S. S. Toloa*



THE S. S. "ULUA"
Of the "Great White Fleet." The radio equipment on this vessel duplicates that on the *Toloa*

Until some ten years ago, the United States Weather Bureau had been without adequate weather reports from the Gulf of Mexico and the Caribbean Sea, and, during the hurricane season, August 15th to September 15th particularly, the lack of such facilities was a great handicap to merchant shipping in those waters. The United Fruit Company had inaugurated, as a part of its own radio service, a system whereby its ship captains kept each other advised as to weather conditions encountered. With the coöperation of the United Fruit Company, the U. S. Government was enabled to extend its Weather Bureau Observation Service to all the Company ships and shore radio stations. All the ship captains of the "Great White Fleet" were appointed special deputy weather observers, as were the chief radio operators at Burrwood, La., Cape San Antonio, Cuba, Swan Island, and Bluefields, Nicaragua. Weather observations from the Company ships and from these shore stations are made twice daily, and relayed through Swan Island and New Orleans and thence by wire to the Weather Bureau in Washington. These weather observations, in addition to those received by cable from the Windward and Leeward Islands by the Weather Bureau at Washington, enable it to report accurately the occurrence of hurricanes, plot their tracks and determine their force, and thus to issue reliable storm warnings for the information of all shipping and for the Gulf Coast of the United States and for Cuba, which has resulted in the saving of millions of dollars in property and of many lives. These storm warnings are broadcasted in the Gulf and the Carribean Sea by the United Fruit Company radio stations for the benefit of all shipping, and it not infrequently occurs that, through information thus disseminated, ships are enabled to steer clear of hurricanes or can be held in port until the storm has passed.

While the Company's project for direct radio communication with Central America has been attained, owing to the recent marked improvements in radio apparatus it now plans further to improve its service by completely rehabilitating all of its ship and shore radio stations, with the end in view of ultimately establishing radiotelephonic communication with Central America. All of its Central American stations will be open to the public as soon as the necessary permits are granted by the respective governments.

Its radio building programme contemplates the installation of tube transmitters for both radiotelegraphic and radiotelephonic purposes on its ships, enabling passengers to talk with the shore from their staterooms at any time during the voyage.

The Tropical Radio Telegraph Company is now erecting in Tegucigalpa, the capital of Honduras, one of the most powerful tube transmitting stations on this continent, which it is expected will be in operation by December of this year. It is interesting to note in connection with this station that the 420-foot steel towers, radio apparatus, oil engines and building materials must be shipped to Amapala, Honduras, on the Pacific coast, where they are lightered ashore and then hauled over an 80-mile mountain trail to Tegucigalpa. Steel gangs and installing engineers have been sent from the United States.

Powerful tube transmitting apparatus will also be installed at New Orleans and at a new station which the Tropical Radio Telegraph Company proposes to erect in the vicinity of Miami, Florida.

The Tropical Radio Telegraph Company plans to have in operation in 1924 a tube transmitting station at Managua, the capital of Nicaragua, which will give direct communication with the United States through Miami and New Orleans.

Later, similar equipment will be installed in Colombia, Costa Rica, and Swan Island, and possible in Cuba, so that probably by 1925 this great radio system will have been completed and the plan of the United Fruit Company to provide the general public as well as itself with a fast, reliable and instantaneous means of communication between the United States and Central America and Colombia will be complete. Further, what is perhaps of more importance to those countries, it will bring together out-of-the-way places and thus pave the way for closer commercial and political relations between the Americas.

The United Fruit Company has spent more than $3,000,000 in the development of its radio system, and upon the completion of its projected radio building programme its investment in radio will probably exceed $4,000,000.

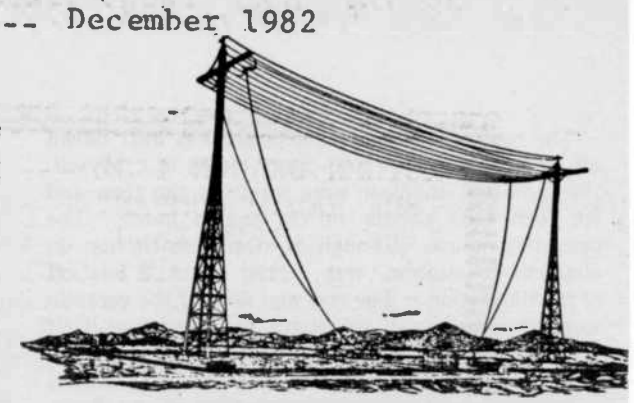
Radio operators in the service of the Fruit Company are all carefully selected men trained to meet its special requirements and to uphold the high standards of the Company. On its ships the radio operators rank with the pursers and have excellent cabin accommodations. The salaries paid to ship operators are based both on their ability and on length of service with the Company; chief operators receive from $105 to $140 per month and second operators from $85 to $105 per month, and found.

In the tropics the company provides living quarters for the operators, and for their families in localities where it is possible for an operator to have his family. The salaries paid to chief operators in the tropics range from $150 to $250 per month, depending upon the length of service and assignment. At Swan Island the company also maintains the mess and furnishes a cook and mess attendant.

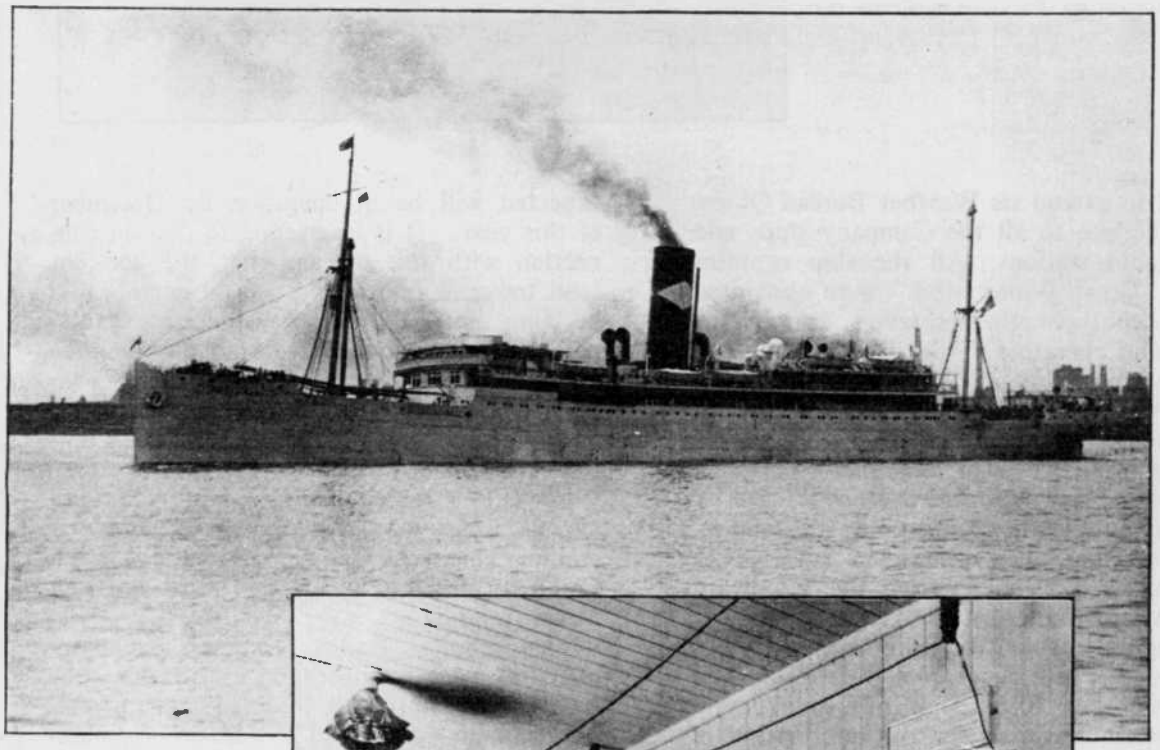
Operators in the tropics are given an opportunity to learn the banana business from the ground up. One of the Company's former operators is now a banana farm superintendent in Honduras; one is the president of a well known radio manufacturing company; another is secretary of a steamship company and others have been promoted to other responsible positions on shore and to pursers and engineers on shipboard.

It is no exaggeration to say that today the United Fruit Company is organized around its ability to communicate quickly by means of its own communication system, without which the conduct of its shipping, but more especially the banana business, would be seriously interfered with, since it enables the management to keep in close touch with its outlying divisions and thus to advise them instantly on the conditioning, cutting and shipping of bananas. Through the use of radio the cutting and moving of bananas to seaboard in the tropics can be timed to coincide with the arrival of steamships at the loading ports, and thus the losses which would result from cutting this perishable fruit too soon are reduced to a negligible sum.

The conception and carrying out of its radio policy was a big thing not only for the United Fruit Company but for the commerci interests of both the United States and Centr America, and great credit is due Mr. Presto Mr. Keith and the Board of Directors for the foresight and courage which enabled the Com pany to complete, in the face of tremendou discouragements and adversity, a constructio and operating programme of such far-reachin importance. It is characteristic of the tru American spirit of initiative, and indicate what can be accomplished by American enter prise abroad. It also demonstrates the mu tually beneficial results which can be secure through the development of a great publi utility by private initiative under wise govern ment regulation rather than under governmen ownership and operation.



STATION AT TEGUCIGALPA, HONDURAS
Tropical Radio Telegraph Compa



THE "S. S. PASTORES" OF THE "GREAT WHITE FLEET"

RADIO OPERATOR'S ROOM ON THE "S. S. PASTORES"

Mailbox

Dear Jim:

My wife and I enjoyed th AWA Meeting (our 3rd) a Canandaigua and visited th Hammond Radio Museum in Guelph Ontario on our way home. Mr Hammond has a fine collectio and it is well displayed.

Your Truly,
E. A. Heckler
Hartselle, AL

Dear Jim,

Would you please publis this in The horn Speaker. need help.

I have just acquired 1929 console radio made by th Neutrowound Radio Manufacturin Company which was called th Neutrowound All Electric Radi - 1929 model and was made i Homewood Illinois and license under the U. S. Navy patents.

The set has 6 each type 2 tubes; 1 each type 27 tube; each 71 tube and type 80 tub for power supply. (I canno locate any model number).

I would appreciate anyon having information on this se or a schematic for it. I canno find anything on it. If anyon has information, I woul appreciate hearing from them.

Thanks
Robert McGee
Route 4, Box 406
Rogersville, AL
35652

AUTUMN SEASON 1982 --- OLDE TYME RADIO COMPANY ---- 2445 Lyttonsville Road, Silver Spring, MD 20910. (301) 585-8776. -- After 7:00 p.m. local time. No. 182B

- 1. HEADPHONES --- a) general service .. $3.00 each. b) vintage .. $6.50 each.
- 2. REPLACEMENT SPEAKERS PM OR DYNAMIC. Many sizes from 2" ovals to 10" rounds. Send us your needs for quote.
- 3. 60uf 250V filter caps. 50 cents each or 3/$1.00. --
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.. VINTAGE TEST EQUIPMENT. WRITE FOR LIST.

- 6. Exact replacement Radiola II or VIII leather handle. only $4.50. --
- 7. OLDE TYME RADIO TUBES tubes from the 20's thru the 60's used and new. write for a quote.
- 8. Need name plate or escutcheon screws? We got them. guage length respectively 0-1/4", 0-3/8", 1-1/4", 1-3/8", 2-1/4", 2-3/8" 10 for 50 cents. Above are brass. Can be ordered with flat or round head style.--
- 9. Ant., rf, osc. coils manufactured by Meissner. Broadcast band and some SW band and multiple band coils only $3.00 each (higher for special units) --
- 10. Slip over replacement coil for ant. and RF coils. Just tell us the diameter of your defective coil form $1.50 each. --
- 11. I.F. transformers (Meissner) most frequencies. $3.00 each (higher for special units) --
- 12. WHITE TUBE CARTONSSize G, 2x2x6 20 cents, lots of 100 18 cents each. Size large G, 1 1/2 x 1 1/2 x5, 18 cents, lots of 100 16 cents. Size GT, 1 1/4 x 1 1/4 x 3 3/4, 16 cents, lots of 100 15 cents. Size miniature, 1x1x3, 15 cents each, lots of 100 14 cents.
- 13. Used power transformers. From $7.00 to $10.00. state your needs and we will send a quote. --
- 14. Mallory electrolytic capacitors small fr type 10 uf x 10 uf at 450V $1.00 each or 6 for $5.00. last ones.
- 15. We cannot provide WD-11's but we can provide WD-11A's made with 864's in WD-11 bases. 864 tubes are new. Work better than WD-11. $15.00 each or 2 for $25.00. --
- 15. DIAL LAMPS - 25 cent each or 5 for $1.00.
- 16. Crystal set items - a) galena xtals $1.50 each b) xtal detector ass'y w/xtal $3.50 each c) unmounted xtal detector ass'y without xtal $2.00 each.
- 17. Headphone replacement cords a) Brandes and Baldwin types $4.35 each b) Olde tyme speaker replacement cords $3.50 each. c) replacement pin jack tips 25 cents each or 5/$1.00
- 18. Schematics for sets manufactured from 1920 thru 1946 $1.50 each for complete data package $2.50 --
- 19. Fahnestock clips 15 cents each or 8 for $1.00 --
- 20. Stancor output transformers primary imp. 2,000 ohms secondary imp. 3.2 ohms. Good for matching triode to speaker. $2.50 each.

... If you don't see it, ask..

- 21. Olde tyme phone plug $1.85 each --
- 22. SPECIAL SMALL SIZE 40 uf., 200V CAPACITOR.. $1.00 EA OR 3 FOR $2.75. --
- 23. SCREW BASE CAPS.. TAKE THE HUM OUT OF ANYTHING. 40 uf/ 40 uf at 450V $3.00 each or 2 for $5.00.
- 24. RESISTOR LINE CORD REPLACEMENT KIT. - 5 TUBE SET TYPE RLC-2 $4.50 - 4 TUBE SET TYPE RLC-1 $3.50 --
- 25. CAPACITOR BONANZA ASSORTED 20 / $1.00 20 PF. TO 0.5 UF. 200 TO 600V
- 26. OLDE TYME AC PLUGS.. $1.10 EACH OR 3/$2.95 -
- 27. Olde tyme toggle switch with short bat with ball $1.85 each. Good for AK-37, etc. Radiola 17, 18, etc. --
- 28. SPEAKER GRILL CLOTH, 2 PATTERNS.. $3.25 SQUARE FOOT. SEND FOR SAMPLE.

PLEASE NOTE: All items previously advertised are still advaiable plus much more. If you don't see it in the ad, write and we will respond immediately with a quote or, if possible, let you know where else to try if we don't have it or can't get it. Free flyer available anytime.

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PHONE AFTER 7:P.M. E.S.T. (301) 585-8776.

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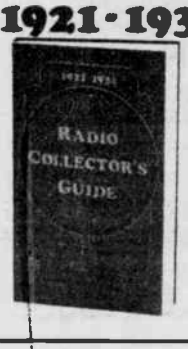

This book makes you an "instant expert" as you go prospecting for those fine old radios. It eliminates guesswork in determining a set's age and "pedigree." There are 264 pages loaded with over 50,000 facts on 9,000 radio models made by 1,100 manufacturers. NEW REVISED EDITION

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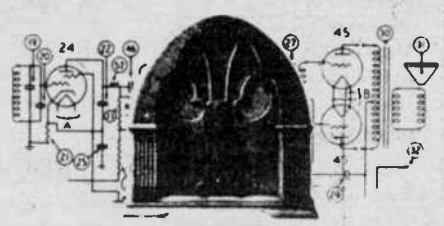

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You can now buy the new revised editions of our very popular books VINTAGE RADIO and the RADIO COLLECTOR'S GUIDE. New VINTAGE RADIO has hundreds of pieces of new information, particularly on years or introduction of radio sets and tubes. RADIO COLLECTOR'S GUIDE contains over 600 pieces of new and improved data. If you don't yet have these books, now's the time to buy them. If your old books are getting dog-eared, now's the time to get fresh new copies.

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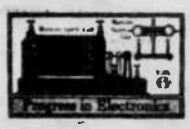


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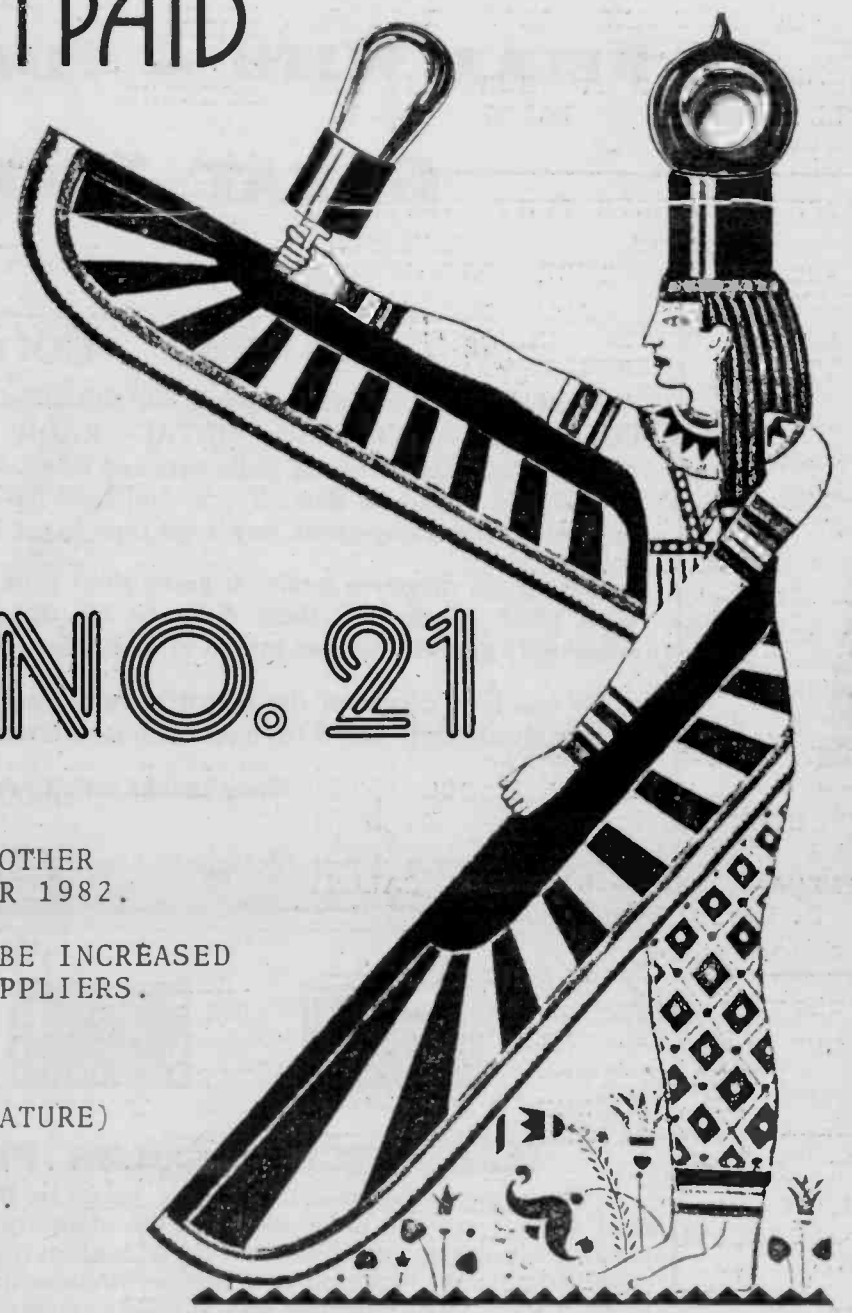

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REPRINTS FOR SALE: 1. Instructions for adjusting all Philco radios. Models 3 through 511. by Philco Service Department $4.50 ppd. 2. Western Electric tubes, 2nd editions, 101D through 284A. 1933, 54 pages. 8 1/2" x 11" $6.50 ppd. RADIO AMERICANA, box 161, West Hurley, NY 12491.

****

:::::::::::-WANTED-:::::::::::

"WANTED ATWATER KENT GRANDFATHER CLOCK; ALSO A.K. CONSOLES OF THE "LATER" ('34 THROUGH '36) YEARS. ALL A.K. TABLE SETS OF THE '30'S. ALL A.K. ADVERTISING. WRITE ARTHUR AXELMAN, 19652 WEEBURN LANE, TARZANA, CA 91356."

WANTED: WESTERN ELECTRIC AUDIO EQUIPMENT; 1930- 1950, amps, preamps, mixers, surplus tubes, manuals, horns, drivers, speakers, crossovers, catalogs, repeater coils, etc. Marantz and McIntosh tube equipment, 1950- 1965. Anyone having or knowing the whereabouts of such items or related theatre audio/ projection equipment, please contact Charles Dripps, Kurluff Enterprises, 4331 Maxson Road, El Monte, CA 91732 (213) 444-7079.

WANTED: PRE 1930 MILITARY SETS, partial or missing parts OK. Also pre 22 wireless spark gear. Trade A. K. no. 4052, Federal 59, Nazi field set. Always buying Grebe CR series and amps. Thank you. Ray Garner, Route 1 Box 320, Big Sandy, TN 38221.

WANTED: 21 INCH MAHOGANY MUSIC MASTER BELL. CONDITION NOT IMPORTANT. CHARLIE STEWART, 900 GRANDVIEW AVENUE, RENO, NV 89503

WANTED: RADIOLA III or IIIA in good condition- reasonable. For sale or trade. 01-A tubes $6.00 each, other tubes 75 cents to $2.00. S.A.S.E. for list. Bruce Harbeck, 1316 - 38th Street, Sioux City, IA 51104.

WANTED: SET WITH LATTICE WOUND VARIOMETERS, ZENITH 1R/3R. BTTY BOX FOR RAD. 26. RAD 24 COVER OR SET, RICHARD FOSTER, 12 SHAWMUT AVENUE, COCHITUATE, MA 01778.

WANTED: SPARTON AC-62 chassis, especially power supply and filter choke units. Also need five Kellogg 401 tubes, Radiola UZ135 driver and Riders Volume 1. Jim Conaway, 709 Halstead Road, Wilmington, DE 19803, (302) 478-5815.

WANTED: ATWATER KENT CONDENSERS variable, detector and amplifier tube panel and filament control and switch panel. William L. Compton, 11 Harbor Woods Drive, Clearwater, FL 33519.

ARE THERE ANY OF YOU RADIO FANS OUT THERE THAT COULD HELP ME OUT? I NEED AN OPERATOR'S INSTRUCTION MANUAL FOR A PRECISION TUBE MASTER, TUBE AND BATTERY TESTER, SERIES 10-12. WILLING TO PAY WHATEVER YOU REQUIRE FOR A PHOTOSTATIC COPY OR ORIGINAL. ALSO I NEED A TRANSFORMER, AM, DETECTOR/ FM DISCRIMINATOR NO. 32- 4147 FOR A PHILCO MODEL NO. 47- 1230. THE WIRE IN THE COIL IS BROKEN AND AM AUDIO IS VERY LOW. NO FM. COULD ANY OF YOU RADIO FANS REPAIR IT FOR ME? WILLING TO PAY WHATEVER YOU REQUIRE, FOR ANOTHER COIL, OR YOUR SERVICE FOR REPAIRING IT. PAUL P. BROUCHKIE, 545 REDONDO ROAD, YOUNGSTOWN, OH 44504.

ZENITH STRATOSPHERE WANTED: Will trade excellent condition, original Wurlitzer 1015 jukebox for similar condition 25- tube Stratosphere. Ken Zander, Box 2652, Sunnyvale, CA 94037. (408) 248-3555.

WANTED: INFO, SCHEMATIC, ETC., FOR GERMAN MADE TAPE RECORDER "GRUNDIG", TK 30U. L. ORLUSKE, 9131 RUSSELL SO., MPLS., MN 55431.

WANTED: VOLUMES 4 AND 5 RIDERS. WILL PURCHASE OR TRADE FOR VOLUMES 9, 10 AND 12. E. A. HECKLER, 1314 N. SPARKMAN, HARTSELLE, AL 35640.

BACK ISSUES

THE HORN SPEAKER, BOX 53012, DALLAS, TEXAS 75253

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NOTE-- Many titles are in the same issue. For example, any title with the date, 78-06-A is the June 1978 edition. Any title with the date, 78-10-A is the last edition of the year 1978. Remember, 10 issues are published yearly.

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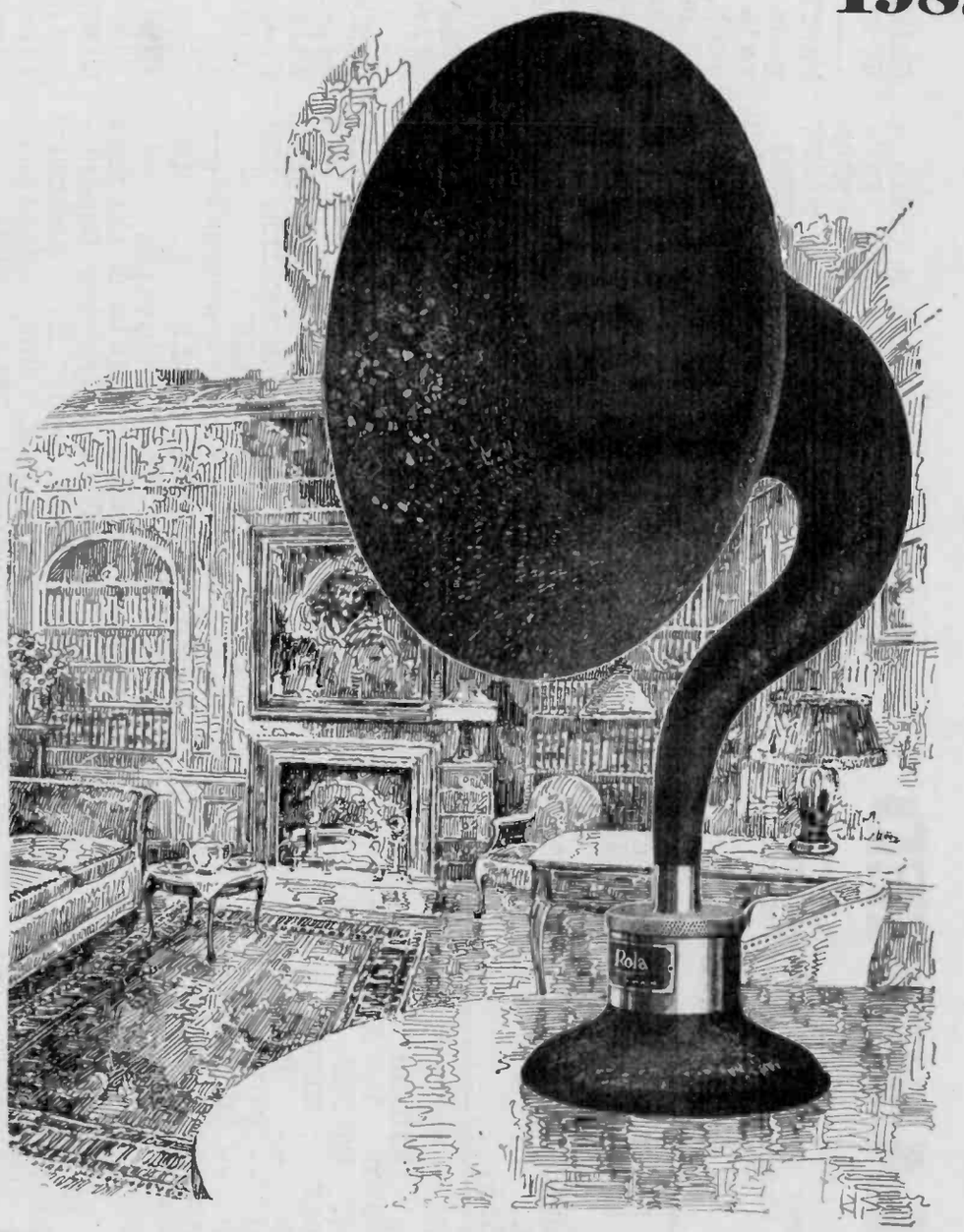
DECEMBER

THE HORN SPEAKER

1982



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