

The Scott News

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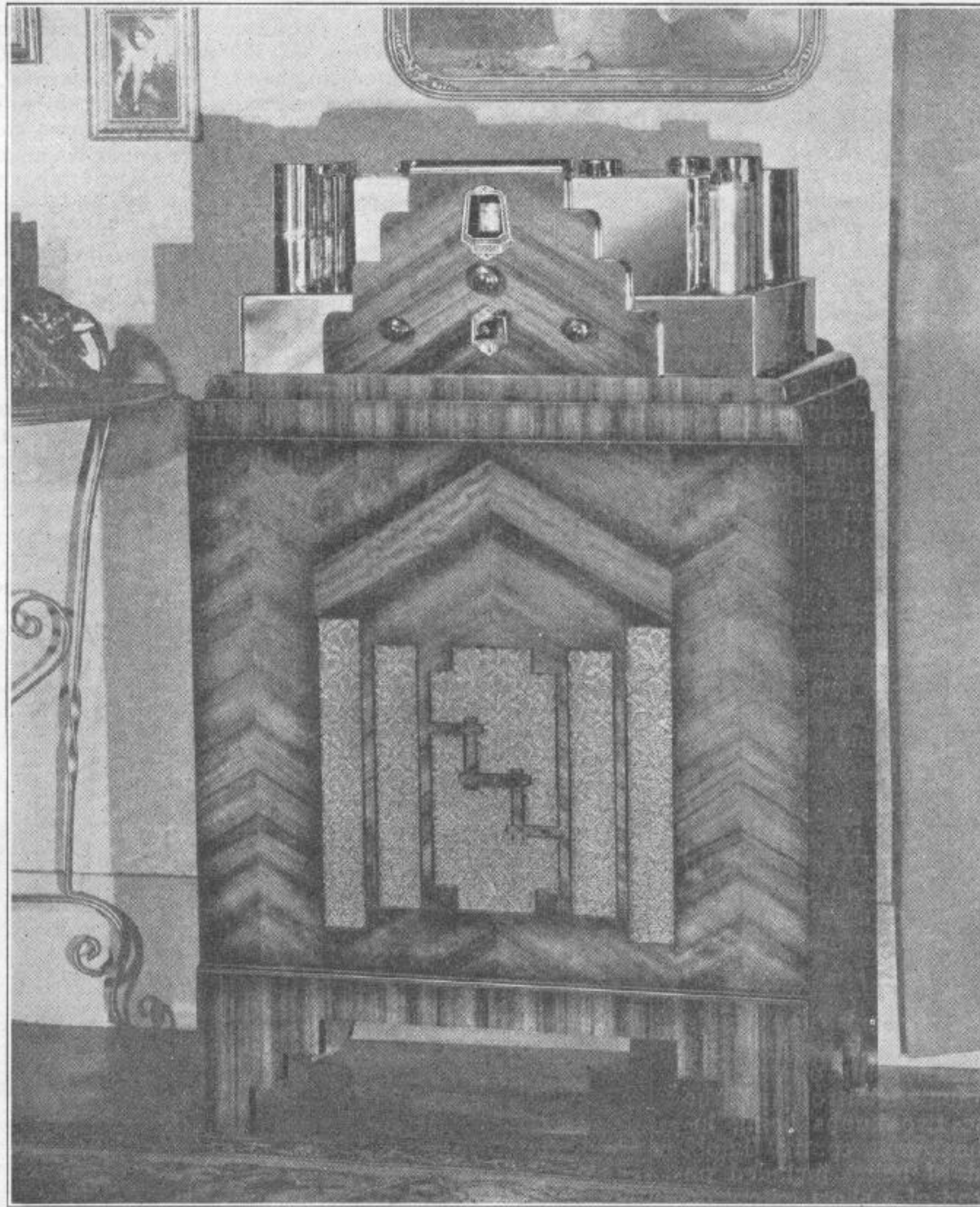
No. 11

PERFORMANCE TESTS OF NEW SCOTT ALLWAVE DELUXE

YOU will find it interesting to go back a few years and look over some of the things you then thought were just about the "last word." Do you remember Mr. Ford's early model "T"? When it was introduced it was considered a marvelous machine, but if at that time it had been possible for you to look into the future and had an opportunity to compare its performance with his new 1932 model "V" type 8, what a surprise you would have received. And what a difference you would also have noticed in the appearance and comfort of the new model as compared to the old model.

If you have any radio catalogues or radio magazines of a few years back, hunt them up. Look over the designs and read over the claims in performance made for them. After you have done this read over the report on the following pages of reception tests made during the last two months with the new SCOTT ALLWAVE DELUXE by Mr. S. Gordon Taylor, Technical Editor of "Radio News." This describes in simple, understandable language the really remarkable kind of performance you can secure with it, and will show you the tremendous strides made in the design of radio receivers. This article will also give you some interesting information on the results you can secure with this new model in various kinds of locations.

Then, on pages seven to eleven of this issue of the NEWS you will find some very conclusive proofs of the reception SCOTT

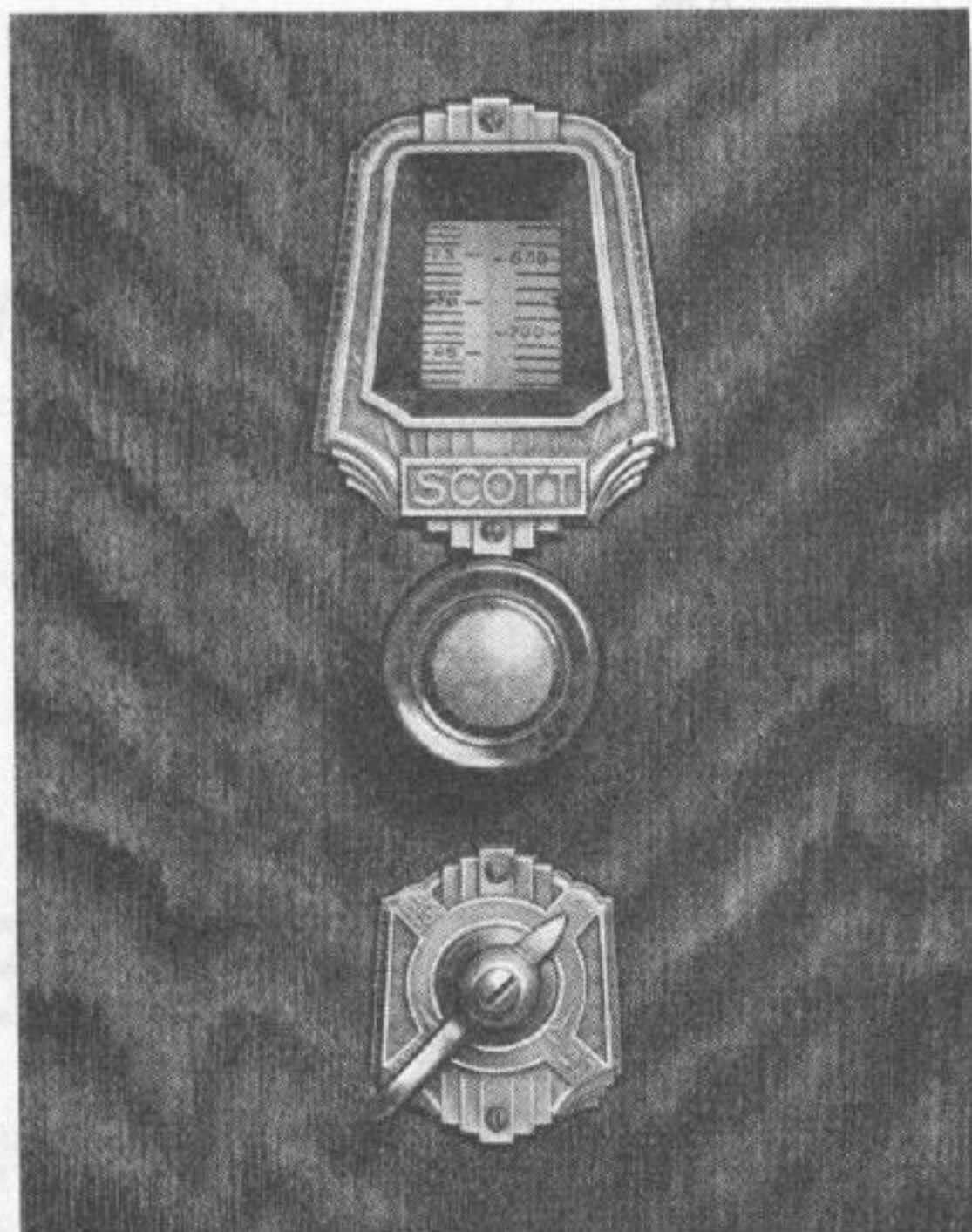


THE NAPIER CONSOLETTA MODEL

RECEIVERS are giving their owners. The results described on these pages were secured with the SCOTT ALLWAVE STANDARD model, so you can imagine the kind of performance you can expect with the new SCOTT ALLWAVE DELUXE model which is even more efficient than the STANDARD model with which these owners obtained the results described.

Most people looking at the SCOTT ALLWAVE DELUXE chassis for the first time imagine they are being shown a special show model, and are surprised to learn that all are finished that way. Every metal part is finished not in cadmium, nickel or any of the commoner finishes, but in CHROMIUM. This modern finish is tarnish-proof and can be left exposed to the air for years without losing its beautiful luster. Here is a chassis so fine in appearance that no longer is it necessary to hide it away inside a cabinet. And the workmanship of the parts you can't see is just as fine as those on the outside.

So beautiful is the appearance of the new SCOTT ALLWAVE DELUXE that a very large number of them are never installed inside a console, and this new Napier consolette is designed for those who are looking for something different. This small compact console houses the speakers and the power amplifier. Its acoustics are such that it brings out to the fullest extent the marvelous tone the SCOTT ALLWAVE DELUXE is capable of giving.



TUNING SIMPLIFIED TO THE UTMOST

All tuning is accomplished with the single knob, without trimmers or auxiliary controls of any kind. The lever below permits instantaneous selection of any one of the four wavelength bands

THIS new superheterodyne, just placed on the market, offers interesting evidence of what the engineering laboratory can produce when it is not hampered with the necessity for turning out a product to meet a price, and when it is not carried away with every new development that has been given wide publicity during the preceding year or two.

Working on the theory that attention to details in refinements and development to produce the utmost in tone quality, sensitivity, selectivity and simplicity of operation is what the public wants, the laboratory engineers went to work on this receiver, with the results which will be disclosed in this and the two succeeding articles of this series.

The new Scott DeLuxe all-wave receiver covers the wave-bands from 15 to 550 meters without a break. It employs twelve tubes in all, nine of them being included in the tuner chassis and three in the power-amplifier, power-supply unit. The chassis of these two units are chromium plated. The receiver is separated into two units, to avoid the crowding that would be necessary were an attempt made to include the whole receiver on a single chassis.

The tuner includes one tuned r.f. stage, first and second detectors, oscillator, three i.f. stages and two audio-frequency stages. All of the operating power for these tubes is drawn from the power-amplifier unit, which also includes a pair of —45's in push-pull, serving as the power output stage.

Real "Single Control!"

Tuning is accomplished by means of a single control, without trimmers or auxiliary controls of any kind to aid in tuning. The only other operating controls are the volume control and the local-distance switch, these two knobs being located on either side of the tuning-control knob. The power switch, instead of being included on the front panel, is on the end of a short extension cord and is of the long-neck, toggle type designed for mounting on the side of the cabinet in which the receiver is housed.

Outside of true single-control tuning, the outstanding feature is undoubtedly the highly perfected switching system which automatically provides all band-changing operations without resorting to the use of plug-in coils. The elimination of the plug-in

Dx fans!

"AROUND THE WORLD LATEST ALL

In Jules Verne's time 80 days was a ter of minutes, via radio, with the heterodyne described here, a receiver

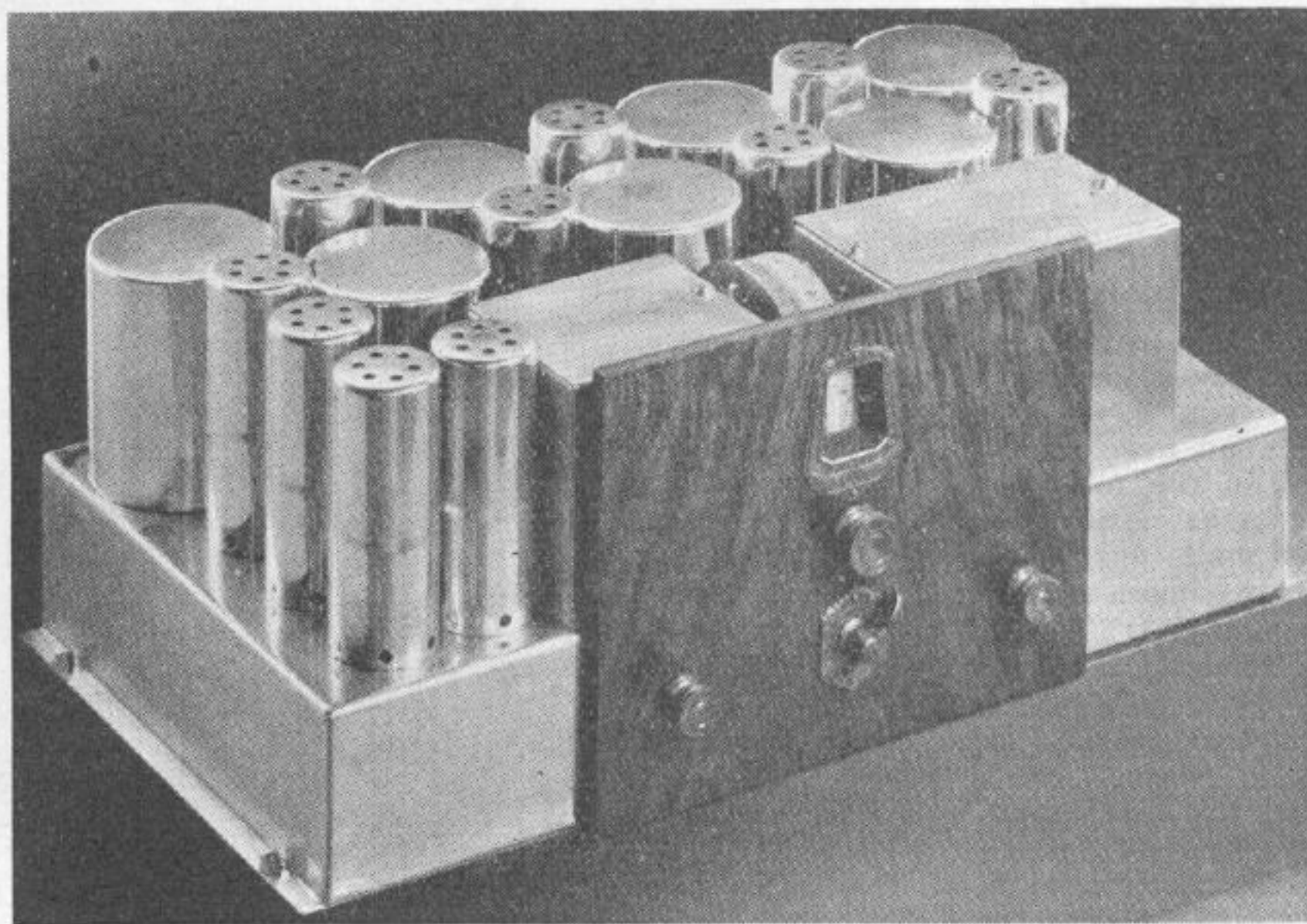
inconvenience is not necessarily new. But to perform this feat by means of a switching system which provides just as high efficiency as could be obtained with plug-in coils is indeed an accomplishment worthy of note.

This entire switching system is controlled by a four-position switch lever on the front panel, just below the tuning-control knob. A movement of this lever permits the operator of the receiver to select any one of the four wave-bands—15-23 meters, 23-61 meters, 61-200 meters or 200-550 meters. So far as the other operating controls are concerned, their handling is identical on all wave-bands. It is therefore not a bit more difficult to tune in short-wave stations than to tune the regular broadcast band, except for the inherently sharper tuning of short-wave stations. This is one receiver, therefore, that can be tuned over any band by any member of the family, regardless of how little patience and mechanical or electrical ingenuity he or she may possess. So much for the general description of the receiver.

[By S. G.

Perhaps the first evidence of the care put into the design of the receiver is found in the fine tone quality which is noticeable the minute the receiver is turned on. This feature is so outstanding that even the most inexperienced listener recognizes it immediately. Not only are the low notes present in their full proportions, but the higher notes, which lend color and definition to both music and speech reproduction, are present in a natural but not overemphasized degree.

The presence of the low notes is not the result of special emphasis placed on one narrow band of the lower frequencies, but is due, rather, to the complete reproduction of all the lower



THE RECEIVER CHASSIS

Totally inclosed in chromium-plated shields, the chassis is a thing of beauty. The power-amplifier, power-supply unit (not shown) is a fitting mate for this chassis in both utility and appearance

minutes!
 IN 80 ~~DAYS~~ WITH THE
WAVE SUPER

*fantastic dream. Today it is a mat-
 single-control, band-switching super-
 which picks up Australia consistently*

One sound frequencies, down to something below 30 cycles. At 30 cycles, the lower end of the useful audible scale, reproduction is at the same level as the higher frequencies which represent the average of musical and voice reproduction, so far as the ear can detect. Actually, the measured reproduction is about 2 db. "down" at 30 cycles, but as the ear is insensitive to changes of less than 2½ db., this drop is not perceptible. At frequencies between 30 cycles and 600 cycles the reproduction is uniform. From there on up there is a slight rise of about 1 db. at 2000 cycles (not perceptible to the ear), followed by a gradual lowering to 2 db. "down" at 3000 cycles. So far as the ear can detect, therefore, the fidelity curve, measured from the antenna to the ear, is absolutely uniform from 30 cycles to 3000 cycles. From this point up the curve, as shown in Figure 1, falls off rather rapidly. This falling off is desirable, because while little of real value is lost, so far as truthful reproduction is concerned, there is a distinct gain obtained from the elimination of undesirable noise which would result from the reproduction of the extremely high frequencies.

Taylor] The high volume of undistorted reproduction obtainable from the receiver is another of its features—far greater than can be possibly used in the home and adequate to meet the requirements of even a good-sized hall or assembly room. This volume, moreover, is obtainable not only on the reproduction of programs from local broadcast stations, but on distant stations as well. After noticing the fine tone quality and overabundant volume, the owner will probably start tuning around with the receiver, and then he will obtain his third distinct impression. The sensitivity on the broadcast band (Figure 2) is little less than astonishing. If the receiver is operating in the evening, from an average location or even from a rather poor one, it will be no trick at all to tune in stations on every broadcast channel on which stations are operating at the time. On two different occasions, a week apart, the writer tried running through the dial from 200 meters to 550 meters, and on each occasion only one channel failed to produce reception. This was the 840 kc. channel (356.9 meters), one assigned exclusively to Canada. Whether this was due to the failure of the

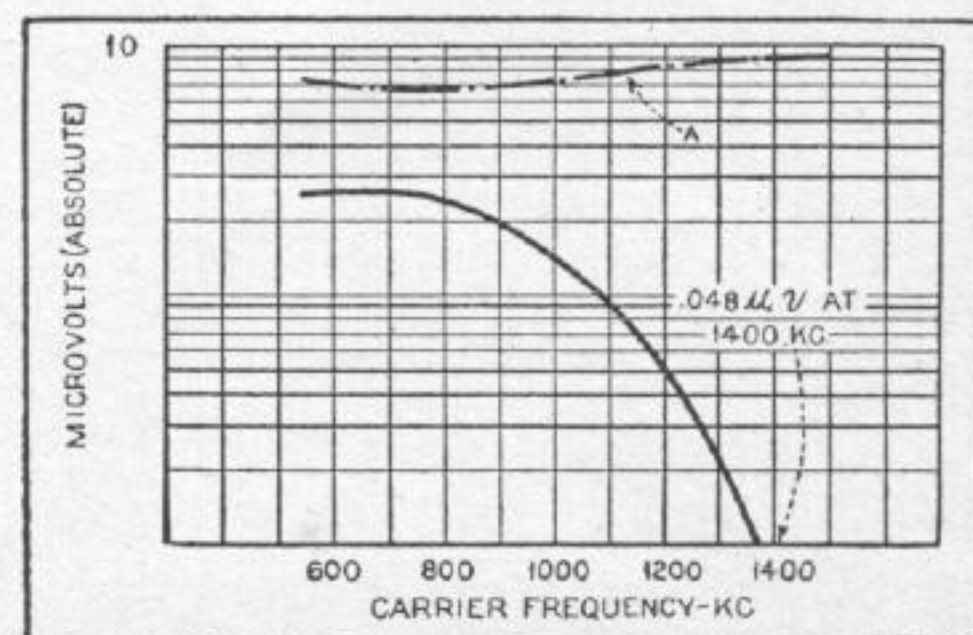
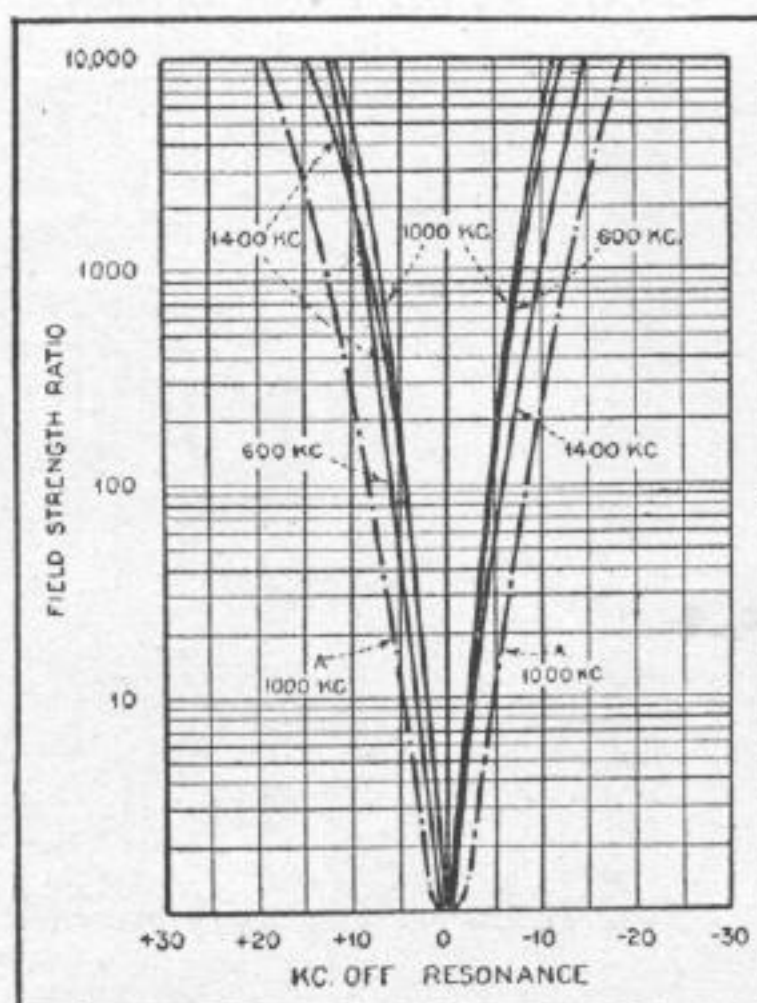
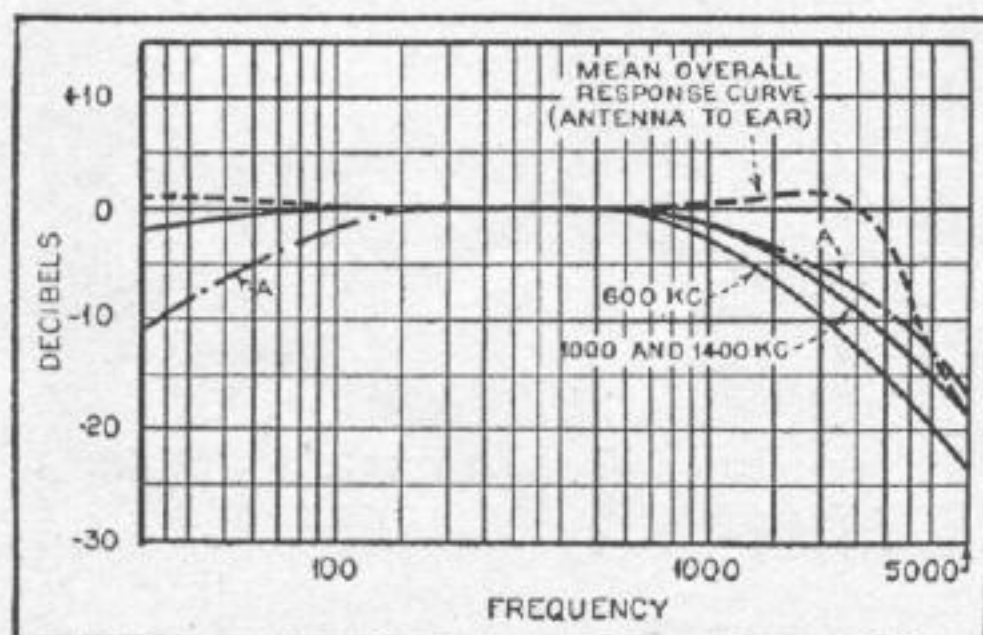
station assigned to this channel to be on the air at the time, or whether the transmitter is in a spot that is completely dead so far as this receiving location is concerned, is not known.

Daytime Reception
 Operating in the daytime, it will not be difficult to bring in stations on at least half the assigned channels. On Sunday afternoon, May 29, operating the receiver at Fairfield Beach, Connecticut, stations were brought in on 53 of the 96 channels. No effort was made to identify the stations tuned in, because of the vast amount of time that would be required to wait for call announcements from this number of stations, many of which do not announce more often than once every half hour and some not that often, particularly on Sunday afternoon, when church services are being broadcast. For those who are interested, the following is a list of the channels on which stations were tuned in between 3 p.m. and 4 p.m., Eastern Standard Time. It should be borne in mind that this reception took place in a location which is, generally speaking, not a favorable one. Certainly it is no better than average. Also that reception was not counted unless it was "via loudspeaker" and distinctly understandable. Many stations 150 miles or more distant (Continued on page 6)



ONE OF THE CONSOLE MODELS

This combination includes the receiver at the top, speaker at the bottom and, between them, a drawer containing phonograph equipment.



FIDELITY, SELECTIVITY AND SENSITIVITY CURVES

These curves show the characteristics of the DeLuxe receiver compared with characteristics (curves A) averaged for 20 high-grade broadcast receivers. Figure 1 (left) shows electrical fidelity, while the dash line shows overall fidelity from antenna to ear. Figure 2 (right) shows the extreme sensitivity and Figure 3 (center) the selectivity at three different frequencies

CRUISING THE SHORT-WAVES WITH THE Latest All-Wave Super

Last month the author described the results of broadcast reception tests using this new receiver. This month he discusses its effectiveness on the short waves, based on tests in four locations around New York City

THIS, the second of a series on the new Scott DeLuxe all-wave superheterodyne, will describe some of the results obtained when using this receiver on wavelengths below 200 meters. Last month something was told of its operation on the broadcast band—how in two successive attempts, a week apart, stations were easily tuned in on every broadcast channel but one and in addition some half-dozen foreign stations operating in the 200-550 meter band.

As the short-wave tests were intended to show typical results from this receiver, it was decided to set up the receiver in several different locations rather than to depend entirely on one location. No attempt was made in any of these tests to pick out especially propitious days or hours (even if such could have been determined in advance), or especially favorable locations. The tests were made at the author's summer place in Connecticut and at another staff member's camp in the woods about ten miles inland from the Hudson and a few miles north of the New York-New Jersey boundary, and at a friend's summer place in West Nyack, a suburb roughly twenty miles outside of New York City. These three locations and one in New York City were decided upon for the tests, as they provide fairly wide geographical distribution and a variety of conditions, but still are suburbs of New York City and therefore easily accessible.

The hours selected for the tests were those which were most convenient and the tests extended over relatively short intervals.

The test in New York City was conducted in an apartment house located on a triangular corner with a trolley line curving around two sides of the building and the third exposed side fronting on a street where automobile traffic is exceptionally heavy. These latter details are pertinent, as all sensitive short-wave receivers are susceptible to interference from automobile ignition. Automobiles bound up the hill are stopped by a traffic light at the bottom and start from a dead standstill; they take the hill in low and second gear, causing more than the ordinary amount of ignition interference. The trolley line is likewise extremely noisy.

A single-wire antenna, ap-

Part Two

proximately fifty feet long, with a lead-in taken off one end and running approximately 60 feet down the side of the building and through the apartment to the location of the receiver, was employed. Under these conditions the down lead provided about as much pick-up as the flat top, but, unfortunately picked up more noise than signal, thus contributing to the relatively high, local noise-level found here.

In spite of this condition, the test produced signals from all of the more commonly heard European stations, many of the American short-wave stations and the Cuban and South American short-wave broadcasters. The potential volume level on these stations must have been high because, due to the high local noise, the volume control could never be turned more than part

way, yet these various stations were received on the loudspeaker. Under these conditions the volume was at times quite low, but at other times filled the apartment, always keeping the background noise at a relatively low level. A location such as this one is, of course, far worse than average. It is probably as bad as will be found anywhere around New York City with the possible exception of some of the down-town business districts. The main consideration is that even in this extremely unfavorable location, reception was accomplished up to several thousand miles.

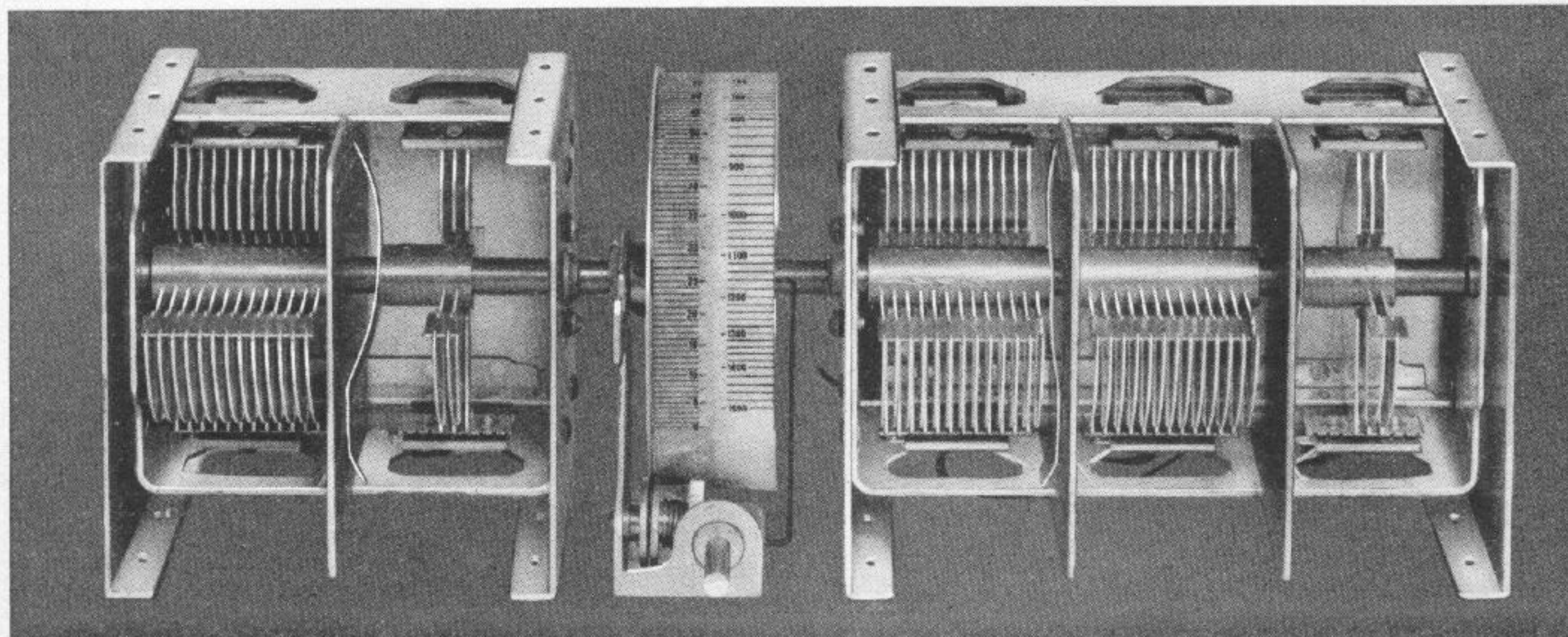
The second test was conducted in West Nyack. Here the receiver was installed on a screened porch. The house is set in a clearing of approximately two acres, surrounded by heavy underbrush and numerous trees. The antenna was a single wire, approximately 100 feet long, and its average height, making allowance for the sag, was about 13 to 14 feet. The lead-in was only about 6 feet in length, and the ground lead to a cold water pipe about 15 feet. The West Nyack tests were conducted during part of one day, beginning about 1:00 p.m. and continued off and on until about 7:00 p.m. Along about 5 o'clock a heavy storm came up, accompanied by thunder and lightning, and lasted about one-half hour. After this the atmospherics continued.

All of the usual foreign stations operating during the afternoon were tuned in and it

[By S. Gordon Taylor]

THE GANG-TUNING UNIT

All tuning elements are mounted on a single shaft which is controlled by the single tuning knob operating through an ingenious friction drive reducing gear



was quite obvious that reception conditions in this location *were* favorable. During the afternoon the Eiffel Tower station in Paris, for instance, was consistently received with little fading, except over long periods. During the periods when the signals were coming through the strongest, the owner of the house was able to understand the French speech from a point 300 feet away from the house (and the loudspeaker). During the fading periods, the signal was still strong enough to provide "living-room volume" without turning the sensitivity control up to a point which made the noise level troublesome.

Rome and Points East

Switching to 12RO, Rome, the listener walked away from the receiver until he reached the point where he estimated the Italian speech would be understandable to anyone familiar with the language. This proved to be 150 feet from the loudspeaker. Earlier in the afternoon, EAQ, Madrid, was received with approximately the same volume as 12RO. This latter station was particularly consistent, with almost no fading. In addition to these foreign short-wave broadcast stations, a number of foreign commercial telephone stations were heard, including a German station, the call of which was not given but which came in with unusual strength.

The next test was arranged at the camp mentioned earlier in this article. Here the antenna, strung between two trees, had an average height of 25 feet. The camp is located in a clearing of about 100 feet by 50 feet and is surrounded by an almost impenetrable forest growth—such a location as one would expect to find in the Maine woods but certainly not within commuting distance of New York. Even in the clearing there were several trees which made it necessary to put the antenna up with its nearest end about 50 feet from the cabin. The antenna and lead-in, together, were approximately 150 feet long, the lead-in being of insulated wire which in several places came in contact with the foliage of trees.

Here the reception conditions were found almost the same as those of West Nyack, but the tests did not get under way until after most of the European stations had signed-off. However, EAQ at Madrid was still on the air, and just below it on the dial was LSN of Buenos Aires. Both of these stations came in well enough to really enjoy the programs. Running in our usual luck, the tests were interrupted by another thunder storm. The result was that local broadcast signals were badly broken up by static and the programs from Buenos Aires and Madrid were actually more enjoyable than were those on the broadcast band! On the short wavelengths, static was almost absent and the signal level was so far above the noise level that more than comfortable volume was obtained before approaching the noise level.

The final tests were made at Fairfield Beach, Connecticut, which borders Long Island Sound, and is 50 miles (by road) from New York City. The antenna employed was a mediocre affair, approximately 70 feet long, varying between 12 to 15 feet in height. The lead-in was approximately 20 feet long. Tests in this location were tried at

various hours of the day—hours which were found convenient, in between swimming, golf and other summer time sports. It was at this location that the only late-at-night tests were made. In general the signal level was lower than at either of the other suburban locations. But the signal-above-noise level was higher than in the New York City location because of the lower noise level encountered.

Australian Reception

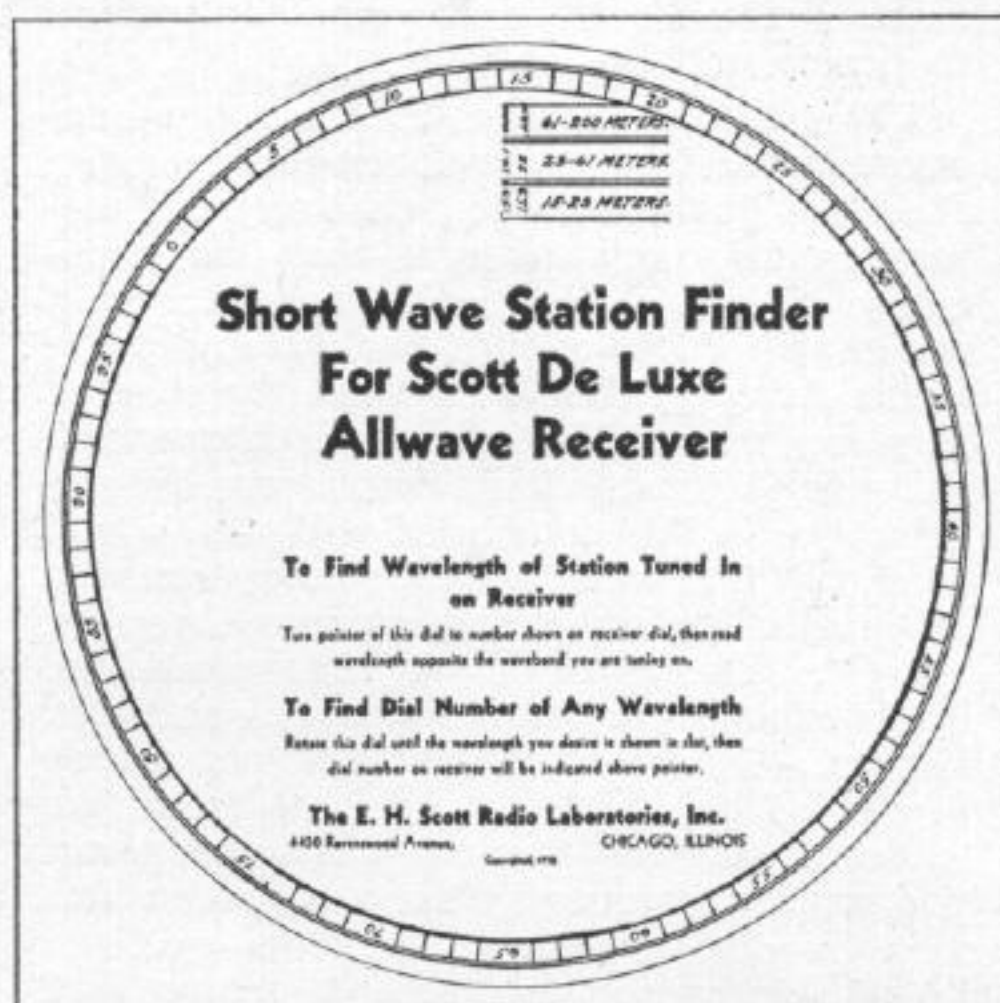
The usual run of European stations, as mentioned in connection with the preceding tests, were found, but reception was less consistent in this location than in the other suburban locations. Some afternoons the European stations were received with fine volume; on other days they were not satisfactory. They could be heard any day, of course, but their field strength above the noise varied greatly from day-to-day and from hour-to-hour. At one time, when a home recorder was not available, both the Paris and Rome stations were coming in with plenty of volume to permit making excellent records. During the next test, with a recorder available, the output volume was entirely inadequate for recording purposes. At another time some records were made, using one of the Acra-test professional type portable recording units. Reception at that time was far from its best, but records were nevertheless obtained on both the Paris and Rome stations. This recorder, incidentally, proved capable of making excellent records. It includes

an unusually constant drive, the power being applied at the outer edge of the heavy turn-table where the strong leverage applied is not affected by the drag of the cutter. The turn-table is accurately balanced to eliminate wobble. The recording head is moved across the record by a positive screw thread drive, cutting and recording the aluminum records at the same time. The quality of both speech and music, as recorded by this equipment, is really good, representing a reasonably close approach to commercial records.

From the foregoing, it appears that this Connecticut location is far from being an ideal one for this type of reception, but this only tends to emphasize the excellent qualities of the Scott

receiver, proven in one outstanding bit of reception. This took place while tuning around at random shortly after 2:00 a.m. on Sunday morning, May 22nd, during the only test carried on in the early morning hours. When tuning slightly above 30 meters, a carrier was encountered, and a moment later an announcement was made in English. It was neither the King's English nor the so-called American English. A moment later the station was announced as VK-3ME, Sydney, Australia, the announcer stating that the program being broadcast was one of an experimental nature, and giving the time as 4:07, Sunday afternoon, at Sydney. This announcement was followed by a number of selections by a military band. The announcer came on again, practically duplicating the previous announcement.

Reception from Australia is uncommon at this early hour in the morning. Ordinarily one hardly expects to receive signals from the other side of the (Continued on page 6)

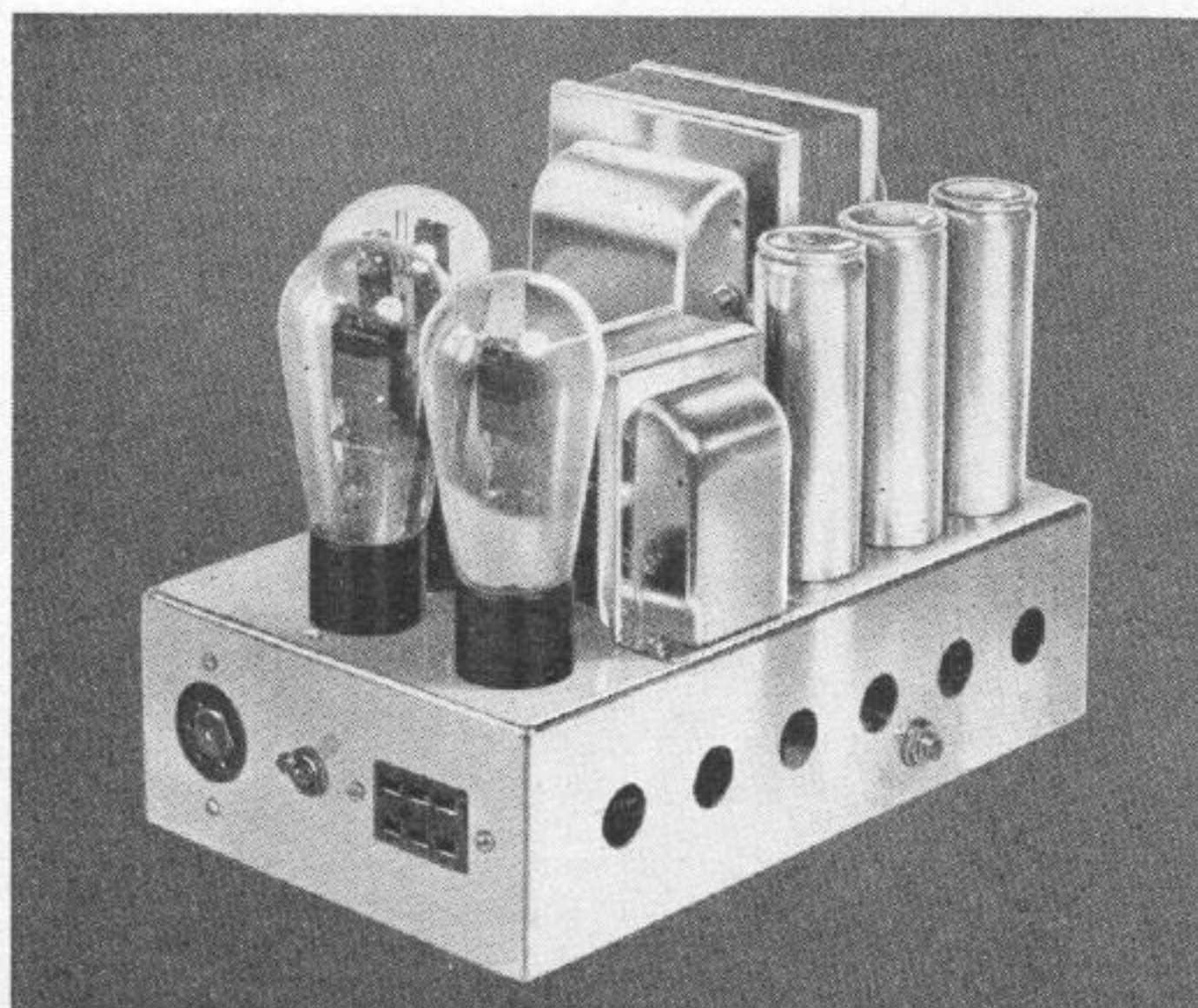


SHORT-WAVE TUNING GUIDE

This station finder shows at a glance the dial setting for any short-wave station whose wavelength is known. The front disc is revolved until the desired wavelength appears at the opening. The arrow then points to the correct dial setting.

THE POWER-AMPLIFIER UNIT

This unit, designed and finished to match the receiver chassis, provides all operating power for receiver and twin speakers. It includes the push-pull power output stage.



(Continued from page 3)

came in well enough to be classed as "local" reception—and this was in mid-afternoon!

The following are frequencies of stations received in mid-afternoon: 560, 570, 580, 590, 600, 610, 630, 660, 690, 700, 710, 760, 780, 790, 810, 830, 860, 890, 920, 940, 950, 990, 1000, 1010, 1020, 1060, 1070, 1100, 1130, 1150, 1170, 1180, 1200, 1210, 1230, 1250, 1270, 1280, 1300, 1310, 1320, 1330, 1350, 1360, 1370, 1400, 1410, 1420, 1430, 1450, 1460, 1490 and 1500.

Another thing to be borne in mind in analyzing the results outlined here is that they are not results obtained after a long succession of tests, nor were they carried on at a time selected because of especially propitious reception conditions. The place was selected as a matter of convenience because the writer happened to be week-ending there, and the time was whatever happened to be unoccupied by other weekend activities. The season was early summer—warm enough to make swimming popular just a stone's throw from the house.

The two evening reception tests took place on Saturday (May 21 and May 28). During one of these evenings a thunderstorm occurred shortly after the evening's reception started, and static remained quite heavy throughout the evening. The other one was clear, warm and free from static. If anything, the reception was better during the evening of the thunderstorm. The static was troublesome then, but the distant stations came in with greater strength. As explained before, stations were tuned in on every broadcast channel, except 840 kc. In addition there were not fewer than six stations tuned in from Mexico and Cuba. Shortly after midnight a try was made for the West Coast stations (12:35 a.m.). KFI came in fairly strong, with only moderate fading, at that hour. Later it, as well as several other far-western stations, came in with

increasing strength, providing good loudspeaker reception (except for the bursts of static the night of the storm). No serious attempt was made toward bringing in stations from other continents, because the noise level on both nights was not such as to permit it.

The mention of noise level brings up another interesting point about this receiver. It is the general feeling that any set employing as many tubes as this one, especially if it be a superheterodyne, must necessarily have a high background-noise level. Actually this is far from the case, at least so far as this receiver is concerned, because the noise level was actually surprisingly low as compared with the signal level. So true was this that many stations 1000 miles or more distant were brought in with little more noise than would be experienced in listening to nearby stations. In fact, WCCO of Minneapolis was tuned in and, switching back and forth from this to local stations having the same chain program, a listener in the next room was asked to tell which of the two was the local. It was not until after a change had been made from one to the other three times that he could definitely decide which was which. During this test the volume control was, of course, readjusted so as to maintain the loudspeaker output substantially the same for the two stations.

When it comes right down to tuning in out-of-town stations, the real selectivity of the receiver is shown up at its best. While the "listening post" was not "under the shadow" of any broadcast transmitting antenna, still the location is a suburb of New York City and therefore close to a number of high-powered stations. Yet there was no difficulty whatsoever in tuning in out-of-town stations 10 kilocycles above and below each of these locals. The selectivity curve is shown in Figure 3.

For the DX enthusiast the accuracy and completeness of the dial calibration will be a revelation. As a matter of convenience the dial is calibrated both in degrees and

in kilocycles. A careful operating check shows the maximum deviation from the frequency calibration to be less than one degree. When a station is tuned in, therefore, its frequency is read directly on the dial, the resonant position being indicated by a hair-line shadow thrown on the translucent scale. This use of a shadow instead of a pointer offers the decided advantage that the dial reading remains exactly the same, no matter from what angle it may be viewed.

Another tuning convenience is found in the local-distance switch mounted on the front panel. This switch provides three settings—local, medium and distance. The local position provides very loose coupling to the antenna and thus prevents powerful local signals from overloading the tubes and causing poor tone quality. The medium position serves the same purpose where the receiver is situated some little distance from the local stations. The distance position provides close antenna coupling and therefore maximum sensitivity when it is required for real DX reception.

It should not be gathered from this, however, that the receiver lacks sensitivity in any of the three positions. Actually, when set for local reception, this outfit is more sensitive than the average broadcast receiver—and at the same time has the advantage of a super degree of selectivity. Thus the switch serves the dual purpose of an overload regulator and a selectivity control.

From the foregoing discussion it is evident that the new Scott receiver has a great deal to recommend it to the broadcast listener. But it does not stop here. Next month an article will deal with the reception results it provides on the short-wave bands, how it actually reaches out for "round-the-world" reception from Australia and New Zealand, and how it provides regular reception from the short-wave broadcast stations of Europe and South America.

(Continued from page 5)

world before 5 or 6 a.m., E. S. T. The reception on this station very closely approached the best foreign reception obtained in this location, in spite of the fact that atmospheric conditions were not good. Earlier there had been another thunder storm; static extending down below 25 meters. The result was that this Australian reception occasionally suffered from static interference, but aside from this, the signal-to-noise ratio was very satisfactory, and both the music and the announcements were clear and distinct. Not a single word of the announcement was missed. During this reception loudspeaker reproduction was used exclusively, as in all of the test.

Little mention has been made of reception other than that from foreign broadcast stations with which short-wave readers are most familiar. In addition to these, any number of others, both foreign and domestic, were tuned in—not only broadcast stations but amateur, commercial, air service and police stations as well.

But for comparative purposes, the tests were concerned primarily with the European stations because of their regularity on the air.

From the foregoing description of the short-wave tests it is obvious that no attempt was made to provide especially favorable conditions of either location, time or antenna equipment. The effort, throughout, was to provide conditions under which the average reader ordinarily works, to show him what sort of results he could expect from the new set. The owner of such a receiver could probably better the results described. He could erect a permanent antenna, best suited to his conditions, of greater height than the temporary ones employed in the RADIO NEWS tests. He could experiment with different grounds. Also he would have all the advantages of a permanent location under known conditions. During most of the tests, the receiver was simply piled into a car and taken to the proposed test location. Once there, it was set up and put into operation in a few minutes. At no time during the tests were any adjust-

ments made in the receiver. Throughout it remained exactly as received from the factory. The Arcturus tubes, with which these receivers are equipped, were never removed from their sockets, even during transportation—and the receiver was carried a total distance of several hundred miles in all.

Before concluding this article, a word should be included concerning the simplicity of short-wave operation provided by this receiver. There is one (and only one) tuning control. This tunes all circuits simultaneously! In spite of the lack of trimmers or auxiliary controls of any kind, the tracking of the circuits was absolutely accurate, whether working in the broadcast or the various short-wave bands. This feat is accomplished electrically, rather than mechanically, and the method employed will be discussed in the final article, next month. A single tuning control, a single volume (sensitivity) control and a single switch for band changing, constitute the complete control equipment; an arrangement which certainly takes the complications out of short-wave tuning.

VERIFIED FOREIGN RECEPTION ON SCOTT ALLWAVE RECEIVERS

Below will be found copies of a few of the letters Mr. A. G. Luoma of Chicago, Illinois, has received recently from foreign broadcasting stations verifying his reception of their programs. During the first six months of 1932 he has listened to and made detailed logs of 1,696 programs received on his SCOTT ALLWAVE standard receiver from broadcasting stations in the following countries:

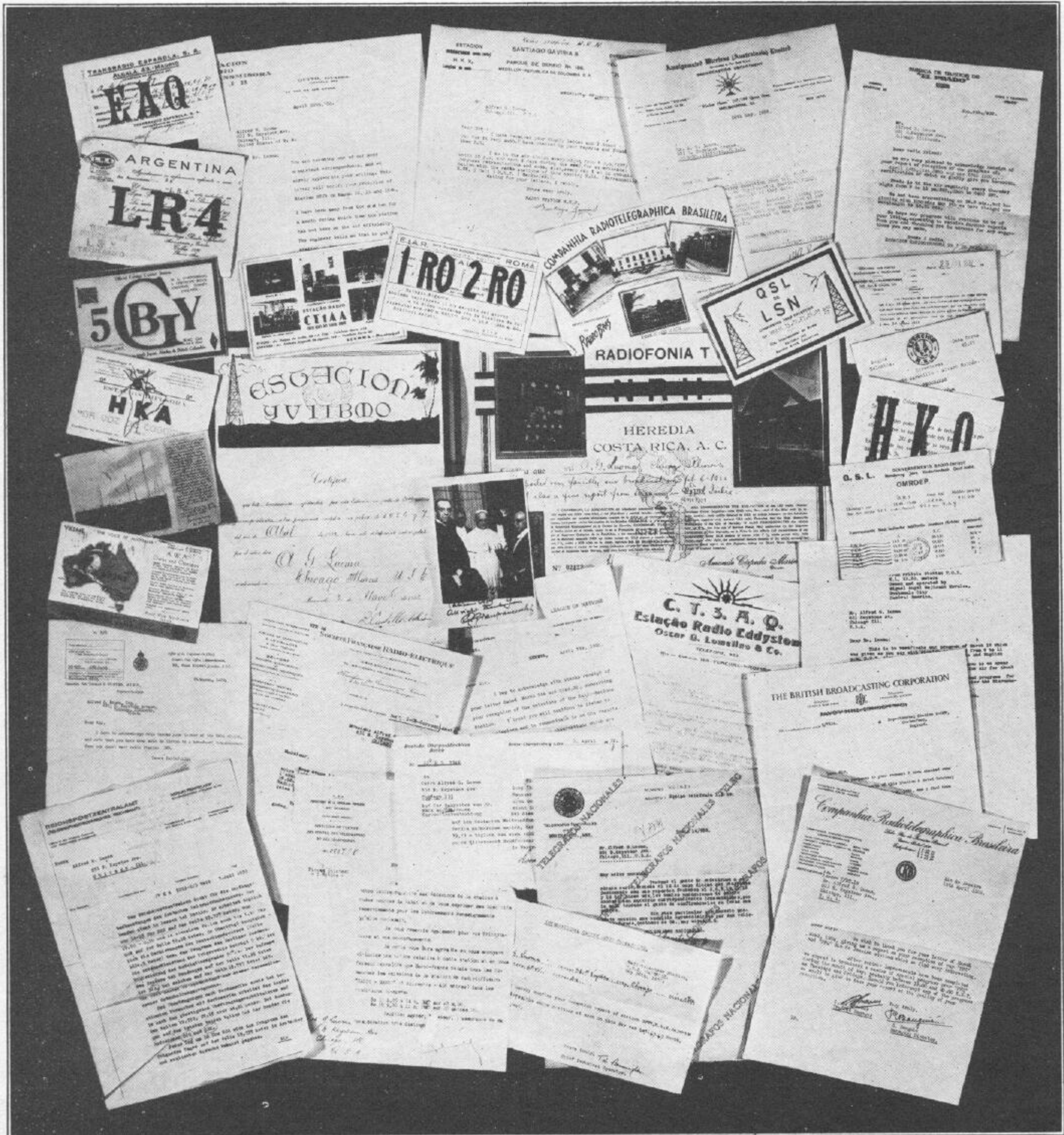
France
Indo-China
Colombia
England
Italy
Bermuda

Spain
Australia
Germany
Venezuela
Ecuador
Argentina

Cuba
Portugal
Yucatan
Morocco
Hawaii
Switzerland

Costa Rica
Brazil
Java
Peru
Guatamala
Japan

New Zealand
Madeira
Denmark
Holland
Philipine Islands
Dutch West Indies



Verification of Foreign Station Reception by Mr. A. G. Luoma of Chicago, Ill.

VERIFIED FOREIGN RECEPTION ON SCOTT ALLWAVE RECEIVERS

Below will be found copies of a few of the letters Mr. F. L. Stitzinger of Forest Park, Erie, Pennsylvania, has received recently from foreign broadcasting stations verifying his reception of their programs. During the first six months of 1932 he has listened to and made detailed logs of 2,024 programs received on his SCOTT ALLWAVE standard receiver from broadcasting stations in the following countries:

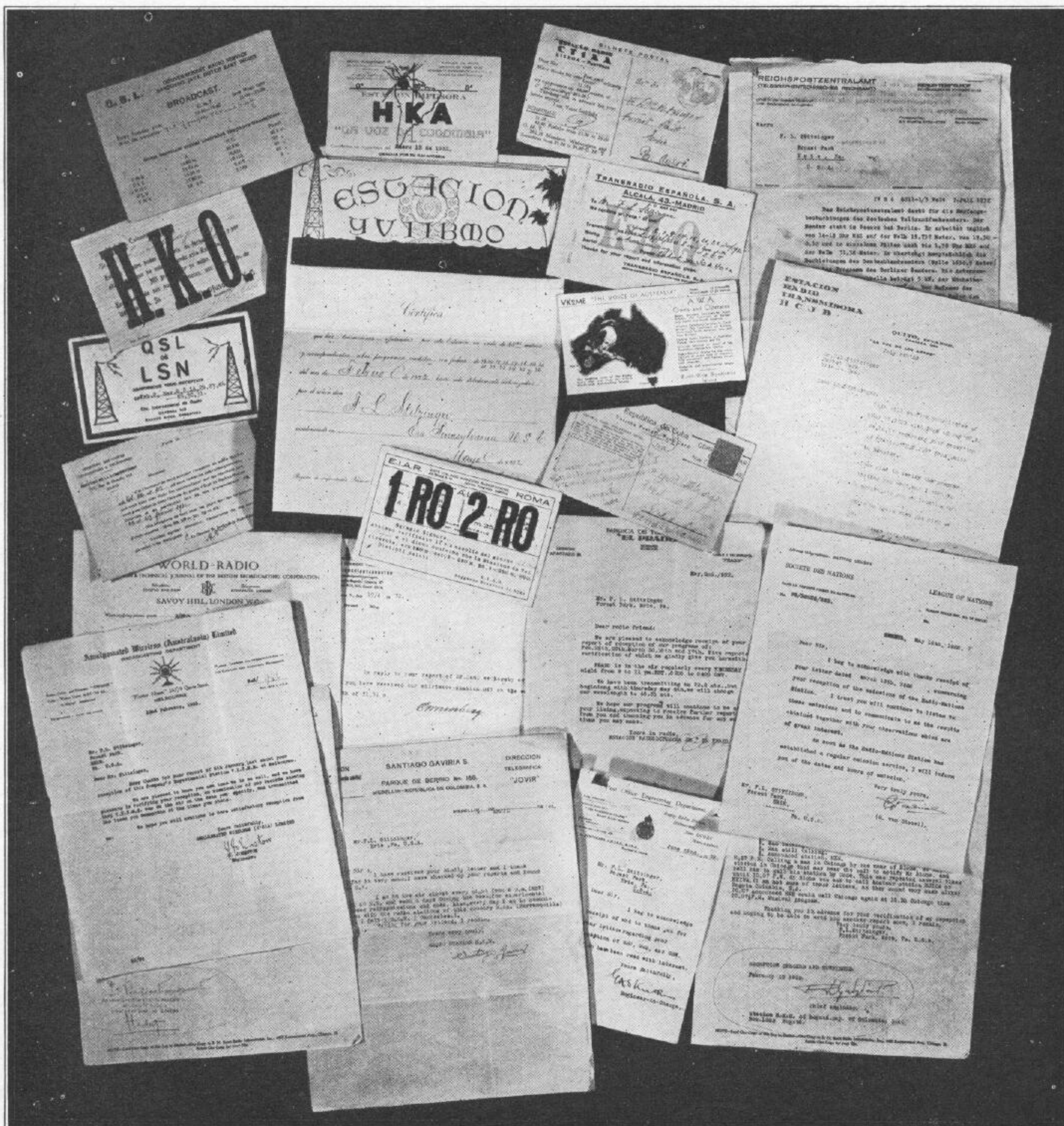
France
England
Colombia
Italy
Venezuela

Spain
Germany
Ecuador
Cuba
Australia

Hawaii
Denmark
Indo-China
Bermuda
Argentina

Morocco
Portugal
Java
Costa Rica
Brazil

Belgian Congo
Chile
Switzerland
Belgium
Guatamala



Verification of Foreign Station Reception by Mr. F. L. Stitzinger of Forest Park, Erie, Pa.

VERIFIED FOREIGN RECEPTION ON SCOTT ALLWAVE RECEIVERS

Below will be found copies of a few of the letters Mr. Mario Ossorio of Camaguey, Cuba, has received recently from foreign broadcasting stations verifying his reception of their programs. During the first six months of 1932 he has listened to and made detailed logs of 900 program received on his SCOTT ALLWAVE standard receiver of broadcasting stations in the following countries:

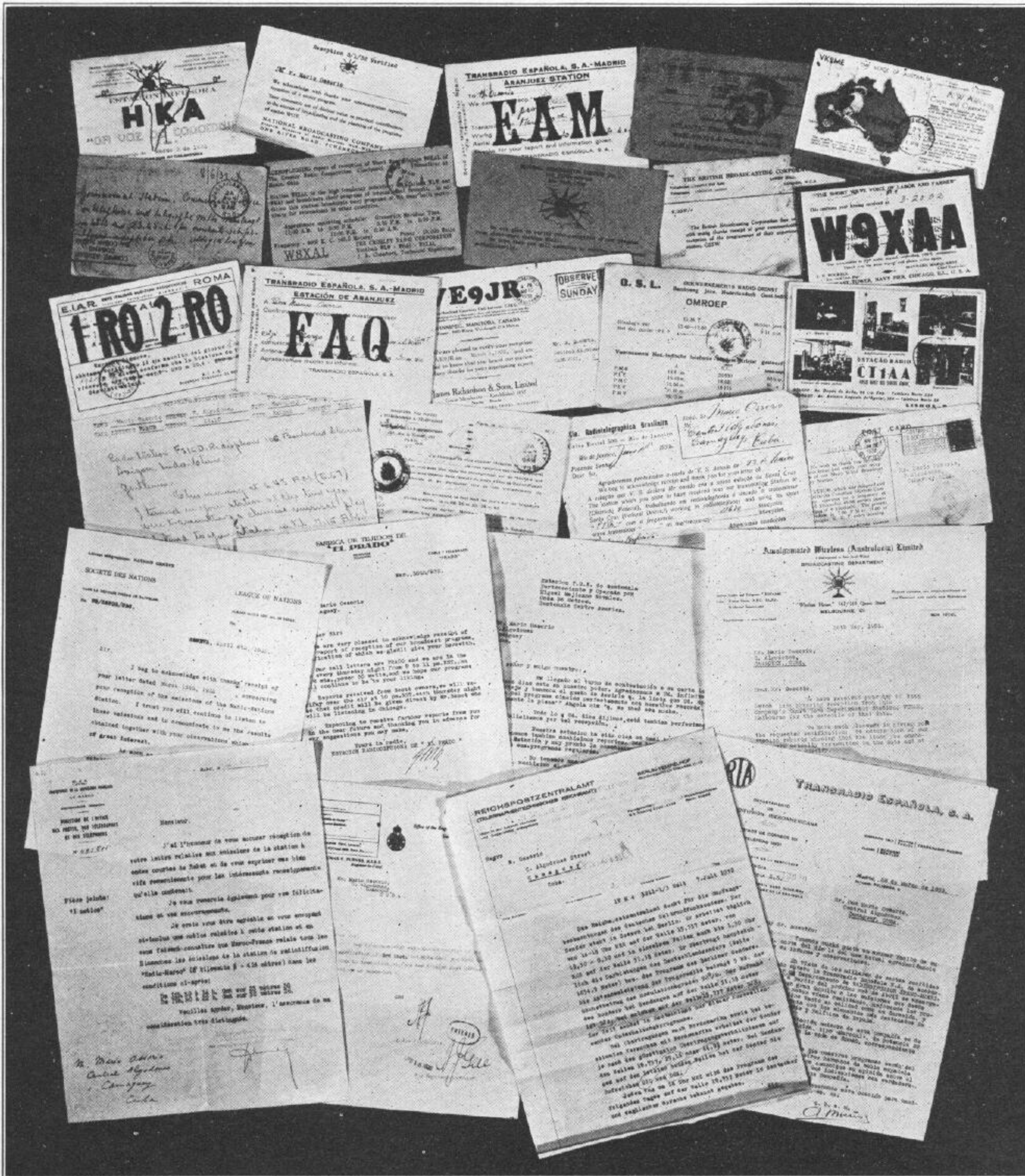
Spain
Italy
France
England
Colombia
Morocco

Ecuador
Indo-China
Java
Russia
Brazil
Hawaii

Holland
Switzerland
Germany
Canada
Yucatan
Mexico

Australia
Bermuda
Argentina
Costa Rica
Venezuela

United States
Portugal
Chile
Guatamala
Sweden



Verification of Foreign Station Reception by Mr. Mario Ossorio of Camaguey, Cuba.

VERIFIED FOREIGN RECEPTION ON SCOTT ALLWAVE RECEIVERS

Below will be found copies of a few of the letters Mr. A. Leonard of Wood Ridge, New Jersey, has received recently from foreign broadcasting stations verifying his reception of their programs. During the first six months of 1932 he has listened to and made detailed logs of 852 programs received on his SCOTT ALLWAVE standard receiver from broadcasting stations in the following countries:

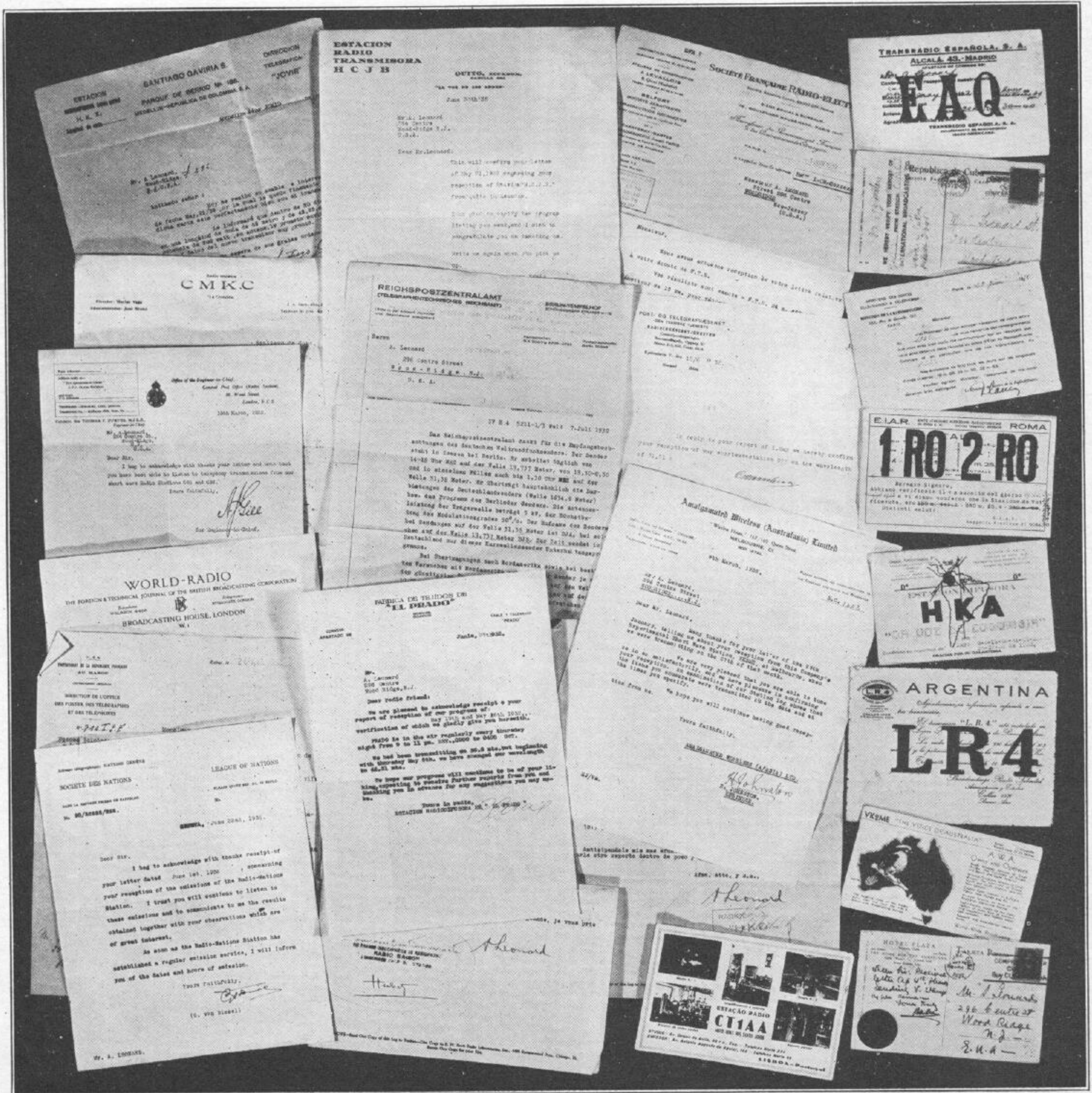
France
Italy
Spain
Bermuda

Cuba
Costa Rica
Germany
Indo-China

Denmark
Portugal
Colombia
Australia

England
Argentina
Ecuador
Morocco

Venezuela
Guatemala
Switzerland
Holland



Verification of Foreign Station Reception by Mr. A. Leonard of Wood Ridge, N. J.

PROGRAMS FROM NEARLY EVERY COUNTRY ON THE GLOBE RECEIVED BY SCOTT OWNERS

Below will be found just a few of the many hundreds of letters we have received during 1932 from SCOTT Owners in all parts of the country telling us of the results they are securing with their receivers.

We have shown initials only of the writers together with the town and state because we do not wish to have them put to the trouble of answering correspondence from all parts of the country. If, however, you are located near the writer of one of these letters, we shall be very glad to give you his full name and address.

FOREIGN STATIONS RECEIVED WITH VOLUME AND CLARITY OF LOCALS

"It pulls in stations from the other side of the world with the clarity and volume of a local. Perfect phonographic reproductions could be made of programs from F31CD and VK3ME. In this same part of the world are located PLW, PLV, VK2ME, J1AA and RV15, all of which are received whenever on the air. I do not mention four or five Hawaiian stations regularly received, as they are just like locals to this set. From South America I regularly receive HKM, HKA and Prado." 1-28-32. K. H. G., Salt Lake City, Utah.

HAS HEARD 43 DIFFERENT FOREIGN STATIONS

"I have written to you several times about how satisfactory my SCOTT ALLWAVE is. Not counting Canadian stations, I have logged this winter and spring 43 foreign stations, including Santiago, Teneriffe, Skamlebark, Rabat, Saigon, Rio de Janeiro, Maracaibo, etc. Zeesen on 19.70 meters is booming in with neither antenna or ground." 6-20-32. S. M., Cornwall-on-Hudson, N. Y.

LISTENS TO GERMANY FOR FOUR HOURS

"For four hours I have been listening to a program from Zeesen, Germany. It is the best reception I have ever had on a short wave length. Without any interference or fading I held the entire program on a six-foot inside aerial. By using only about one foot I still could hear the station when the volume was turned on full." 2-10-32. H. N., Englewood, N. J.

HEARS STATIONS ALL OVER THE GLOBE

"I have been here almost a month, and on the short waves have had VK2ME and VK3ME, Australia; F31CD, Indo-China; J1AA, Japan; PLV and PLW, Java; G5SW, England; 12RO, Italy; FYA, France; GBU and GBS, England; RABAT, Morocco; LSN, Argentina; HKF, HKA, HKX, HKD, KKM and HKO, all in South America; CT3AG, Maderia." 2-18-32. B. H. H., Augusta, Ga.

RUSSIA—AUSTRIA

"I have had Moscow, Gothen, Nauen, Zeesen, Vienna, Madrid and Australia. I have also had some Spanish-speaking station, besides Madrid." 4-22-32. J. C. H., Utica, N. Y.

RECEIVES FOREIGN STATIONS UNDER DIFFICULT CONDITIONS

"I am next to a theater and right under the San Juan broadcasting station. With all of this interference I have no difficulty in getting the following stations: Rome, Barranquilla, Paris, Melbourne, Bogota, Germany, Sydney, Spain, Canada and, of course, all of the stations in the States." 3-9-32. J. P. D., San Juan, Porto Rico.

GETS ELECTION RESULTS FROM GERMANY DIRECT

"Today I noticed in our paper that NBC, through a local station, KFI, would broadcast election comments from Berlin. I turned on my other broadcast set at 4:00 o'clock P.S.T. and listened to the first few lines of talk. I noticed there was some code in the background. I got to thinking if the NBC could pick up Berlin on the short waves back in the East somewhere, there was a chance of me getting them here. So, I looked up stations in Germany. There was Zeesen on 31.38 meters. So, turning the dial to where I thought 31.38 meters ought to be, I heard the same voice as we were hearing on the broadcast set. Well, you could have knocked me over with a feather. We then turned the broadcast set off and listened to the reports of the election direct from Germany on the SCOTT ALLWAVE. What a set!" 4-10-32. H. R. J., N. Hollywood, Calif.

MOROCCO—MADEIRA AUSTRALIA

"I have had excellent results with my SCOTT since bringing it to Florida. I have been getting VK2ME and VK3ME regularly, and have had fine reception from Rome, Italy; Chelmsford, England; Paris, France, and also most of the South American stations. On the broadcast band I have had every State in the Union. I have had Morocco, Maderia and Sydney every Sunday, as well as Honduras, Colombia, Hawaii, Germany, Ecuador and several ships. To say I am pleased with the set is putting it very mildly." 2-7-32. W. R. P., Palm Beach, Fla.

SEVEN STATIONS IN SEVEN COUNTRIES HEARD IN ONE DAY

"Last Saturday was the best day with regards to reception I have had this month. I received the following stations: FYA, France; EAQ, Spain; 12RO, Italy; VK3ME, Australia; DHC, Germany; HKA, South America, and HCIDR, Ecuador. SEVEN stations from SEVEN different countries—approximately 41,300 miles. Only a SCOTT ALLWAVE RECEIVER can equal or better this reception." 3-29-32. W. B. G., Elkhart, Ind.

SPAIN—GERMANY—FRANCE

"I have been able to bring in, in the last two days, with good volume, some with the volume and clarity of our local stations, the following countries: Spain, Germany, France, England, Argentina, Venezuela, Colombia, Italy and Australia. Many times I have passed over stations, thinking they were locals, when in reality they were stations from foreign countries. This especially applies to a station in Madrid and the two Australian stations." 5-23-32. H. G. J., Indianapolis, Ind.

LOGS EVERY CONTINENT EXCEPT AFRICA

"During the past three weeks I have logged every CONTINENT except Africa, and will no doubt pick that up soon. It is truly a radio that will go out every day and bring in foreign stations. When I say bring them in, I mean like local broadcast stations." 3-28-32. R. A. K., Manhattan, Kan.

HEARS 19 DIFFERENT COUNTRIES IN TWO MONTHS IN EGYPT

"The following stations were received during January and February: Bandoeng, Java; Pontoise, France; Rome, Italy; Chelmsford, England; Madrid, Spain; Zeesen, Germany; Skamlebaek, Denmark; Poznan, Poland; Rabat, Morocco; Maracay, Venezuela; Kharkov, Russia; Bangkok, Siam; Casablanca, Africa; Chi-Hoa, China; Vienna, Austria; Nairobi, British East Africa; Moscow, Russia; Vatican City, Italy; Prague, Holland; Pittsburgh and Philadelphia in Pennsylvania; Springfield, Mass.; Schenectady, N. Y.; Boundbrook, N. J.; New York City, N. Y.; Chicago, Ill.; Cincinnati, O.—all in the United States." 3-2-32. J. A. C., Alexandria, Egypt.

GOOD VOLUME ON INDO-CHINA—ARGENTINA—FRANCE

"I have received the following stations daily with good volume: HDK, South America; FYA, France; F31CD, Indo-China; DJB, Germany; EAQ, Spain; LSN, Argentina; 12RO, Italy; KKP and HDQ, Hawaii. In addition to these I receive all the short wave transmitting stations in this country and Canada." 5-2-32. E. H. T., St. Paul, Minn.

HAS HAD EXCELLENT FOREIGN STATION RECEPTION IN SPITE OF ELECTRICAL INTERFERENCE

"I am writing a few lines to let you know about the wonderful reception I am getting on my SCOTT RECEIVER. I have heard 23 foreign stations in the last three months. I hear VK3ME regularly, and can play VK2ME loud enough to be heard a block away with W1XAZ on the air. I hear the South American stations nightly. I am located less than 50 feet from a trolley line, and am surrounded by high-power electric lines—there is a 2,200-volt line within 30 feet of my aerial. I have been told that I have the worst location for a radio in the city." 4-30-32. E. D., Memphis, Tenn.

EXPERIENCES THRILL IN TUNING IN FOREIGN STATIONS

"The set more than fulfills your promises for its performance. I have had no previous experience with short waves, and it gives me quite a thrill to sit down and tune in foreign stations with the volume of locals. G5SW at Chelmsford, England, has been coming in great for the past two weeks, and I have listened to Big Ben striking midnight every evening. I have also tuned in VK2ME and VK3ME in Australia; FYA, Paris, France; GBU and GBW, Rugby, England; EAQ, Madrid, Spain, and 12RO, Rome, Italy. All of these stations come in with plenty of volume." 5-21-23. D. M., Sangus, Mass.

MARVELS AT DISTANCE ABILITY OF ALLWAVE

"The tone is remarkably true and beautiful at all frequencies. The sensitivity and selectivity are marvelous. Yesterday morning I listened for half an hour to VK3ME at Sydney, which came in clearly and with great volume. I had to leave the set at 8:00, when the Sydney chimes were just striking 11:00 in the evening. Later on I returned and tuned in RABAT, Morocco, which came in with equal or greater volume (both literally filled the house). I think this is interesting reception—roughly ten thousand miles to the west and four thousand miles to the east within the same morning." 2-25-32. T. V. B., S. Orleand, Mass.

The SCOTT NEWS

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 FORMERLY
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E. H. SCOTT, Editor

Who would have thought twenty years ago, that we would one day, through the medium of a small box, literally pull out of the air the actual voices of people on the other side of the world; that we could listen in our own homes here in America to concerts being given in the capitols of Europe, not just now and again, but regularly, day after day?

Naturally, this kind of reception is not possible with all radio receivers. The fact that our receiver is capable of giving this kind of reception has produced the usual result—a host of imitators who claim all

and in many cases more than we who can legitimately prove the reception claims made for our receiver.



E. H. SCOTT

Designer of 'Round the World Broadcast Receivers'

Recently one manufacturer came out with the statement that his receiver "would give reception on the broadcast band of stations up to 5000 miles in broad daylight." I don't say that the time

will not come when this kind of reception on the broadcast band may be just as easy as it now is on the short wave band. But certainly that day has not yet arrived, and in proof of my belief that this particular receiver could not give this kind of reception in the United States, I offered to wager \$1000 it could not be done with this receiver or with any other receiver available today. He refused to take my wager, so the conclusion is obvious.

Another claim made by the same manufacturer was that he had developed a system which "Eliminates between 80% and 90% of static and local interfering noises." As I believe in keeping posted on all of the latest developments in radio I investigated this statement, with the result I found that static and interference was not even eliminated 1%, let alone 80% or 90%, although a tricky demon-

A STRAIGHT TALK ABOUT RECEPTION CLAIMS

stration could be made which apparently showed that noise was reduced. I suggested a simple test which would very quickly prove whether there was any truth to this claim or not. Take two identical receivers—one equipped with this system—the other without it. Tune in the same station **AT THE SAME DEGREE OF VOLUME** on both of them and it will be found that the amount of noise **IS EXACTLY THE SAME** on both of them.

If this claim were true, that this system would actually reduce static 80% and 90%, then the person who developed it could name his own price for his invention; it certainly would be worth millions of dollars. I recently wrote this manufacturer pointing out the harm misleading statements like this do. The radio industry is as yet in its infancy and only harm can be caused by making claims which cannot be proved or verified absolutely.

Here at the SCOTT LABORATORY we have exercised every care never to make a statement we could not prove. It is very easy to make a claim that you can do "so and so," but why make claims you can't prove? For example—If world-wide reception is claimed for a receiver, the one making that claim should be able to prove beyond all doubt that the receiver is capable of actually giving this kind of reception.

This cannot be proved by merely printing one or two letters from customers to whom you have shipped receivers. While letters from customers are always interesting and I have published numbers of them and will continue to do so, still I have never used them as "proof" in claiming a reception record.

I believe when a RECEPTION RECORD is claimed, that this record should be fully verified in every way. I believe there should be a complete log or logs of the programs listened to and actual verification from the foreign stations verifying the reception, for, unless the foreign station actually verifies the reception, what proof is there of the reception? Yet, today we find some manufacturers claiming "Record breaking performance" and "Champion DX records" and claiming them without having in their possession any ACTUAL proof in the way of detailed logs or verification from the stations named in these records they claim.

Then wouldn't you think a manufacturer who claimed for his receiver "Record breaking performance" or "Championship DX records" and who issues "An open challenge to any and all reception records" would be willing to defend this championship he claims when someone takes him up on it?

For many months I have been reading these "challenges"?, and as I believe I have a receiver that can beat anything with tubes in it, I accepted one of these challenges and sent the letter by registered mail for which I hold a receipt, but to my surprise my letter was not answered, nor was my offer to meet him in a side by side public reception test accepted, so form your own conclusions. Bluff is all right until someone calls it.

For a number of years I have claimed that SCOTT RECEIVERS are entitled to championship honors, and their ability to bring in stations broadcasting voice and music from all parts of the world has been proved, not once, but thousands of times.

I kind of hate to write an Editorial of this kind, but recently the field has been flooded with manufacturers making claims so absolutely false and misleading that I believe it is time someone brought the subject out into the spotlight and said something about it.

In the next issue of the SCOTT NEWS I will have a full description of one of the most severe and difficult reception tests that has ever been made. It describes a series of tests carried on for twelve consecutive months with two different stations over 9000 miles distant from Chicago. Every regular program one of these stations put on the air was received for twelve consecutive months without a single miss, and every regular program (excepting three) from the other station was also received for twelve consecutive months.

In addition to a description of this test will be full details of another test in which SCOTT Owners in all parts of the world submitted over 19,000 detailed logs of reception of foreign station programs during the last six months.