The Scott News

Vol. 9 OCTOBER, 1936 No. 5

ANNOUNCING LATEST DEVELOPMENT OF THE SCOTT RESEARCH LABORATORY

Scott Supershield Antenna Coupling System

REMARKABLE NEW EFFICIENT DEVELOPMENT, REDUCES ANTENNA LEAD-IN NOISE PICK-UP APPROX. 1,000 TO 1 AND DOUBLES EFFECTIVE SENSITIVITY OF RECEIVER TO WEAK, DISTANT STATIONS

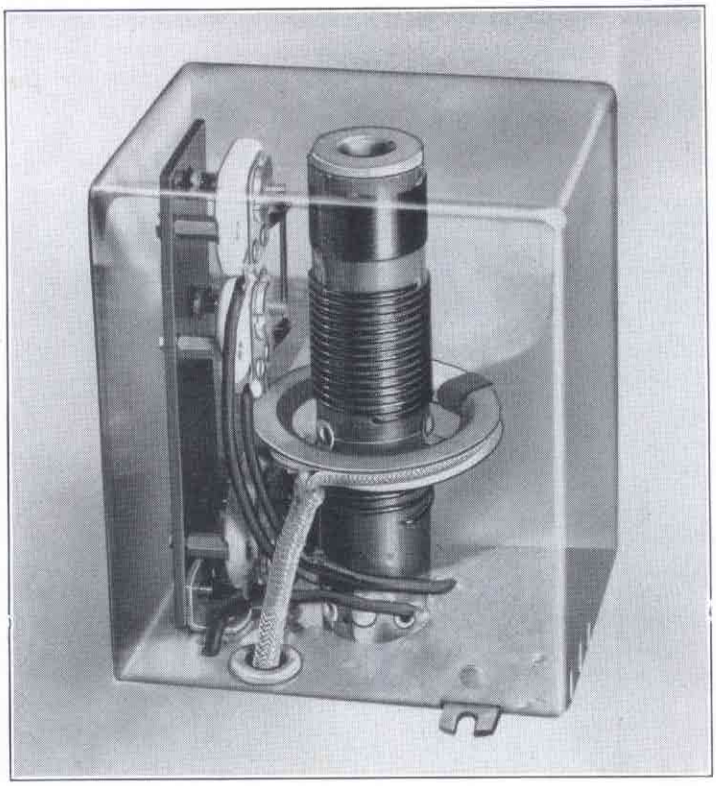
FOR over eight years continuous research has been carried on in the Scott Research Laboratory on antenna systems. When we introduced our first Allwave receiver in 1928, we quickly realized that while the ordinary single wire antenna gave maximum reception of stations on the broadcast band, it was inefficient on the short wave bands, and for this reason we recommended to our first Allwave owners the use of two separate antennas, a long one for the broadcast band, and a short one for the short wave bands.

However, as we became more familiar with Allwave reception, another and even more serious defect in the ordinary single wire antenna became very noticeable, and that was the amount of interference and noise picked up from passing automobiles, electrical apparatus, etc., when receiving stations on the short waves; noise that was entirely absent when receiving stations on the broadcast band.

So intensive research was commenced in 1928 to develop an antenna system that would give the greatest possible efficiency in the reception of broadcast and short wave stations and, at the same time, if possible, reduce the effects of interference.

The First Scott Noise Reducing Allwave Antenna

It was necessary for us to pioneer in the field of special antennas for Allwave reception as there had been no necessity for such antenna before. It was not until 1932 and 1933, over four years later, that the tremendous possibilities of the Allwave receiver, which brought in foreign as well as domestic stations, was realized by the rest of the industry, for, like many other important developments in radio engineering, the Allwave receiver was pioneered by the Scott Laboratory.



View Showing the Section of New Scott Supershield Antenna Coupling System Located on Top of Base—Balance of System Located Underneath Base.

In 1930 we introduced the first of the "noise reducing antennas" designed especially for use with an Allwave receiver; a modified transposed doublet antenna system which increased the signal pick-up and, at the same time, reduced the noise picked up on the antenna lead-in.

An improvement of this first Scott Allwave Antenna System was introduced in 1932; a separate compact unit having variable primary and secondary coils and a variable secondary tuning condenser operating into the grid of the R.F. tube, which still further increased the efficiency of the signal pick-up on the short wave bands.

Eight Years Research Culminate in Amazing New and Superefficient Antenna Coupling System

In 1934, the Scott Super Antenna System with its shielded external coupler was introduced, providing for Scott All-wave owners an antenna with still greater noise reduction and antenna efficiency. However, continual research has been carried on during the past eight years in our Laboratories in the effort to produce an antenna system that would eliminate the noise picked up on the antenna lead-in, and at the same time eliminate the inefficient shielded coupler transformer which considerably reduces the signal transfer. This continuous eight years of specialized research, has at last resulted in the perfection of the Scott Supershield Antenna Coupling System, a development that at last successfully accomplishes the results radio engineers have been trying for years to attain—INCREASED SIGNAL GAIN FROM THE ANTENNA TO THE GRID OF THE R.F. TUBE, AND GREATLY DECREASED INTERFERENCE PICKUP ON THE LEAD-IN.

Reasons for Remarkable Efficiency Are Simply Described

In order to clearly understand what a tremendous advance the new Scott Supershield Antenna Coupling System represents over any other antenna coupling system available today, we are briefly analyzing the antenna systems in use at the present time:

(1) The regular straight wire antenna with a single lead-in connected to the receiver.

(2) The more advanced type of double-doublet having a twisted pair transmission line lead-in from the flat top of the antenna and a built-in, or external shielded, coupler.

(3) The new Scott Supershield Antenna Coupling System.

If you now own an All-wave receiver connected to a straight wire antenna, you know that reception is frequently marred by noise and interference caused from various electrical appliances, ignition from automobiles, etc. The reason for this is that while the horizontal, or flat top, portion of the antenna located some distance above the ground picks up little interference, the lead-in wire coming down from the antenna is *extremely* efficient in picking up interference, mainly because it approaches quite closely to the interference source. In other words, the entire length of wire from the antenna post to the tip of the antenna is sensitive to the reception of any electrical impulses to which it is exposed, and has no noise reducing properties whatsoever.

Why Present Type "Noise Reducing Antenna" Reduces Noise

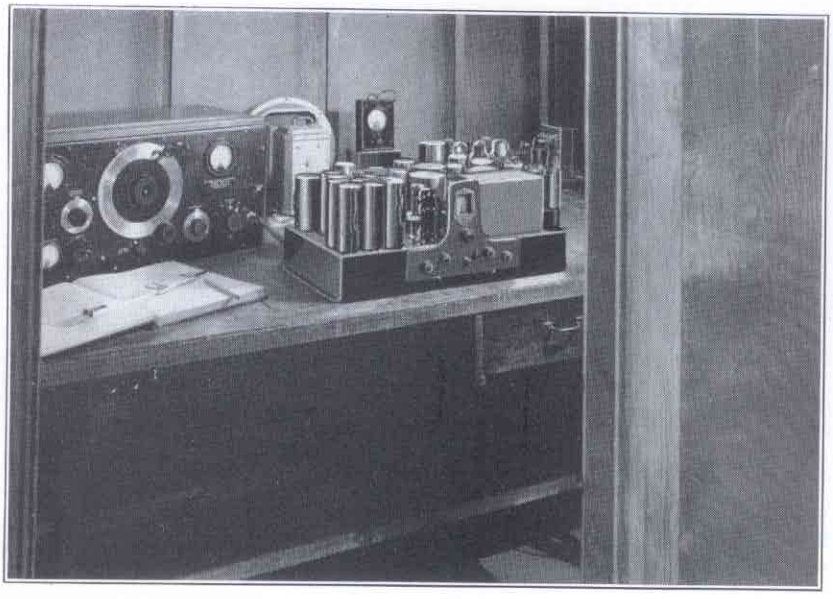
On the other hand, if you have connected to your receiver one of the best of the present type noise reducing antennas, with a twisted lead-in and a shielded coupler, either external or built into the receiver, it will be found that a considerable portion of this local interference and noise will be eliminated.

The reason for this is while the flat top portion of the antenna responds very efficiently to weak signals on the short wave bands, the lead-in, consisting of a twisted pair of insulated wires, in conjunction with the shielded coupler, operates in such a manner that interference picked up on one of these wires is partially balanced or cancelled out by the same interference picked up on the other wire.

So, depending on the perfection of this balance, and the perfection of the shielding in the coupler, a considerable portion of the interference picked up on the lead-in of the so called "noise reducing" antenna is decreased.

But Loss of Signal Strength Is Serious Defect in Noise Reducing Antenna with Separate Coupler

While "noise reducing antenna systems" using separate couplers so far introduced, including even the Scott Super Antenna System, provide considerable noise reduction, *an appreciable portion of the desired signal strength picked up on the flat top of the antenna is lost in the shielded coupler,* since it is impossible to secure a very high degree of signal efficiency in this unit. Furthermore, if the maximum possible efficiency is to be obtained from such a coupler, it is necessary to arrange a switch on it so that connections can be changed over to secure the best signal strength on various wave bands.



View Showing the Laboratory Set Up in Shielded Room to Make Measurements on Amount of Noise Eliminated.

Insufficient Noise Reduction Serious Defect in Noise Reducing Antenna with Built-in Coupler

By the use of a "built-in" coupler, eliminating the inefficient external coupler thru which the signal must pass to get into the receiver, it is possible to secure an improvement in signal efficiency, *but up to this time, this has been accomplished only with a sacrifice in the noise reducing property of the twisted lead-in type antenna.*

Noise in Lead-in Eliminated—Yet Signal Efficiency Increased

The new Scott Supershield Antenna Coupling Antenna System not only completely avoids the shortcomings of both the external and built-in antenna couplers, but actually improves on the best features of each.

Results Accomplished with New Scott Supershield Antenna Coupling System

The new Scott Supershield Antenna Coupling System is an entirely new development of the Scott Research Laboratory, and should not be confused with widely advertised "built-in" noise reducing couplers. Its construction is as much different, as its performance is better. Briefly stated, the results that have been obtained with the new Scott Supershield Antenna Coupling System are as follows:

(1) It has effectively doubled the sensitivity or distance-getting ability of the antenna and receiver combination, as compared with the best results heretofore obtained with either the regular type antenna, or the best

noise reducing antenna with its associated inefficient shielded coupler. This means that the remarkably low noise level of the Scott Receiver, even when operated at maximum efficiency, is still further enhanced enabling its owner to get good reception from stations that are weaker and more distant than ever before.

(2) It has improved the ratio of desired signal to noise picked up on antenna lead-in by a factor of approximately 100 to 1 in the case of the best previously obtainable noise reducing antenna and shielded coupler, and by a factor of approximately 1,000 to 1 over the regular type antenna.

(3) It has entirely eliminated the necessity of switching a shielded coupler for operation on broadcast or short wave bands; this function being performed automatically with the Scott Supershield Antenna Coupling System.

Reason for Extreme Efficiency of Scott Supershield Antenna Coupling System

Those who are technically inclined will recognize that an antenna coupling system to be rated as ideal, must have the following qualifications developed to a high degree of perfection:

(1) Complete elimination of capacitative coupling between antenna system and first tuned circuit.

(2) Exact magnetic balance to avoid undesired magnetic energy transfer of longitudinal currents due to interference picked up on the lead-in.

(3) Exact impedance match of primary coil to antenna lead-in in order to develop the maximum magnetic field from transverse currents in the antenna due to the desired signal.

(4) Provision for maximizing energy transfer from antenna to grid of the first tube on each wave band for which this system is used.

(5) Complete elimination of any intermediate transformers with their unavoidable loss of efficiency and relatively narrow band coverage.

(6) Incorporation of automatic switching to eliminate the nuisance of added manual control without sacrificing any of the above qualities.

Upon completion of the development work on the new Scott Supershield Antenna Coupling System, a long series of careful, precision tests were made, to compare its efficiency with the best All-wave noise reducing antenna systems available today.

Laboratory Tests Prove Superiority of New Scott Supershield Antenna Coupling System Over Other "Noise Reducing Systems"

Since measurements on noise pick-up from a number of different interference sources is inherently very inaccurate and variable, the tests were carried out by duplicating the effects of desired signals and interfering noises which are picked up in a typical noise reducing antenna installation, by the use of a precision standard signal generator, and the associated accurate laboratory equipment required. With this apparatus, the results obtained with the new Scott Supershield Antenna Coupling System were compared with the best noise reducing antenna systems available today, including both built-in, and external shielded coupler types.

Laboratory Apparatus Used in Tests

As there is no standard signal generator available today having a balanced output to exactly simulate a balanced signal in a noise reducing twisted lead-in, a General Radio precision standard signal generator was connected between ground and one of the two transmission line antenna posts, while the other antenna post was connected to ground. A metalized type resistor of 175 ohms was then connected in series with the signal generator and the ungrounded antenna post to represent the terminal impedance of the standard twisted pair lead-in of a noise reducing antenna.

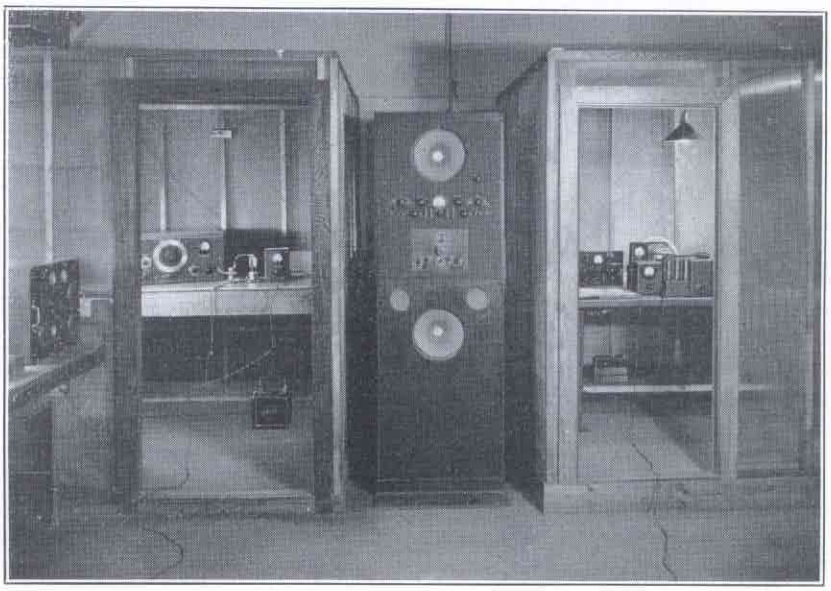
How Noise Reduction Was Measured

A weak 30% modulated signal produced by the signal generator, was tuned in carefully on the Scott Receiver, and the audio volume set to produce 1 volt output across a dummy voice coil load resistor. Measurements made with these connections correspond to transverse currents or desired signals picked up on the flat top portion of the antenna proper.

Now, without changing the receiver's sensitivity or the audio volume control, the two antenna posts were ungrounded, connected together with a heavy copper busbar and, thru the 175 ohm terminating resistor, connected to the live terminal of the signal generator, in order to represent a longitudinal current corresponding to inteference picked up on the lead-in of a noise reducing antenna system. The output from the attenuator of the signal generator was then raised until the original audio output across the dummy voice coil load resistor was duplicated. The measurements made with this connection correspond to the interference or undesired signal pick-up of the antenna lead-in, since in a correctly installed double-doublet noise reducing antenna system, the transverse currents corresponding to the desired signal, picked up on the antenna proper, flow in opposite directions at any instant in the lead-in wires, while the currents generated by undesired interference picked up on the lead-in, appear as longitudinal currents flowing in the same direction, at any instant, in each of the two wires.

Therefore, the ratio between the numbers of microvolts in the first and second cases necessary to produce this same audio output, represents the factor by which the noise reducing system is effective in discriminating in favor of the desired signal, and against interference picked up on the lead-in.

The tests as outlined were carefully made on a number of the better class commercial receivers, some incorporating built-in antenna systems, others with external couplers connected to noise reducing systems, as well as a Scott Receiver using a



View Showing the Two Shielded Rooms and Laboratory Equipment Used to Measure Signal Transfer Efficiency.

Scott Super Antenna with the external coupler, which the new Scott Supershield Antenna Coupling System supersedes.

These measurements were made at the frequencies corresponding to the useful shortwave spectrum and the results plotted as shown in the curve titled, "Ratio of Signal to Noise Pick-up on Antenna Lead-in." No attempt was made in these signal generator tests to compare the noise reducing properties of the various systems with a regular single wire lead-in antenna system, since it is well known that a single wire lead-in will pick up interference as efficiently as it will pick up desired signals. Also, since the impedance of the single wire type lead-in varies with length, location, height, proximity to other objects, and with the frequency at which it is operated, from 40 ohms to as high as 5,000 ohms, it is not practical to exactly simulate this type of lead-in in a standard signal generator test. Therefore, the single type lead-in antenna was given a signal to interference pick-up rating of 1, and is represented on the graph as a horizontal line. This conclusion and rating were qualitatively checked a number of times during listening tests by using a spark coil and violet ray machine as an interference source a few feet from the lead-in.

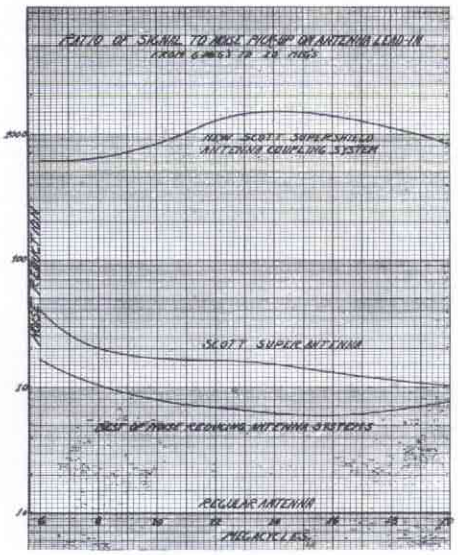
Practical Listening Tests Made with Buzzing Spark Coil, Violet-Ray Machine, and Vacuum Cleaner

In addition to the standard signal generator tests, from which the curves reproduced were made, a spark coil, Violet-Ray machine and vacuum cleaner, were used in practical listening tests with the various types of antennas tested, and the new Scott Supershield Antenna Coupling System was the only one which eliminated 99% of the interference in the receiver from these interference generators, *even when they were sparking and buzzing within a few feet of the lead-in and of the receiver itself.*

Noise Reduction Secured with Other "Noise Reducing Systems" Compared with Scott Supershield Antenna Coupling System

Naturally, some of the "noise reducing systems" tested were better than others, but in the curves shown the data is given for the "noise reducing antenna system" that proved to be the best of those tested. In addition, the curve also shows the efficiency of the Scott Super Antenna System, as compared with the efficiency of the new Scott Supershield Antenna Coupling System.

It will be noted that the best "noise reducing antenna coupling system," other than the Scott Super Antenna and



Coupler System, had an average discrimination of approximately 10 to 1 in favor of the desired signal, picked up on the antenna proper, against noise or interference picked up on the antenna lead-in.

The same tests applied to the former Scott Super Antenna System, using a separate coupler, showed a somewhat better average discrimination of approximately 15 to 1 over the same frequency range.

The very striking improvement that is obtained in the new Scott Supershield Antenna Coupling System will be appreciated from the fact that it has an average discrimination of approximately 1,000 to 1 against noise or interference picked up on the lead-in.

Tests Made to Prove Efficiency of Signal Pick-up from Flat Top of Antenna

While these tests indicate the very remarkable ability of the new Scott Supershield Antenna Coupling System to eliminate noise picked up on the antenna lead-in, in favor of desired signal picked up on the flat top of the antenna, they do not indicate the efficiency of the signal transfer from the flat top of the antenna to the grid of the R.F. amplifier tube.

In order to accurately measure the efficiency of the new Scott Supershield Antenna Coupling System in picking up signals on the flat-top of the antenna, and transferring them with the maximum possible gain to the grid of the R.F. amplifier tube, a rather elaborate setup was made, and the system tested as follows:

An electrically long (220 feet) section of twisted lead-in was run from the precision standard signal generator located in a shielded test booth, around several rooms, then back to the receiver under test in an adjacent screened booth. The signal generator was coupled to the twisted lead-in, or transmission line, thru a correctly terminated balanced transformer, the center tap of which was grounded. A vacuum tube volt meter was connected between the center tap and either side of the transmission line in turn, accurately measuring the lead-in input voltage, which corresponded to a desired signal at the antenna proper.

A second vacuum tube volt meter was used to measure the voltage produced at the grid of the R.F. tube in the receiver, with each of the antenna coupling systems tested, at each of the different test frequencies. In each case, the grid circuit of the R.F. tube was carefully tuned to the test frequency, and the voltage read at the grid terminal divided by the voltage

View in One of Studios Showing the Violet Ray Machine, Vacuum Cleaner and Spark Coil Used to Create Electrical Interference and Prove How Scott Supershield Antenna Coupling System Eliminates 99% of It.

put into the signal generator end of the antenna lead-in, was taken as the effective gain or signal efficiency of the antenna coupling system tested.

In order to compare the signal efficiency of a typical, regular antenna, using a single wire lead-in, with the new Scott Supershield Antenna Coupling System, a 400 ohm non-inductive metalized resistor was used to simulate the average impedance of a regular antenna, and the voltage step-up from signal generator to R.F. tube grid, was measured over the frequency range of from 6 to 20 megacycles.

Tests Prove Greater Signal Pick-up of Scott Supershield Antenna Coupling System over Other Antenna Systems Tested

The relative gains obtained over the important short wave frequency range in the case of (1) the regular antenna, (2) the best noise reducing twisted lead-in, plus the coupler, (3) the same noise reducing twisted lead-in using the new Scott Supershield Antenna Coupling System, are plotted on the curves on this page marked "Signal Tranfer Efficiency."

These curves show that the signal efficiency of the best of the other "noise reducing antenna systems" using either external couplers or built-in couplers, is not much different from the signal efficiency using the regular type antenna with a correctly matched antenna coupling system, but with the new Scott Supershield Antenna Coupling System operated in conjunction with the regular Scott Super antenna, *the effective sensitivity of the receiver has been practically doubled.*

Laboratory Data Will Be Interesting to Radio Engineers

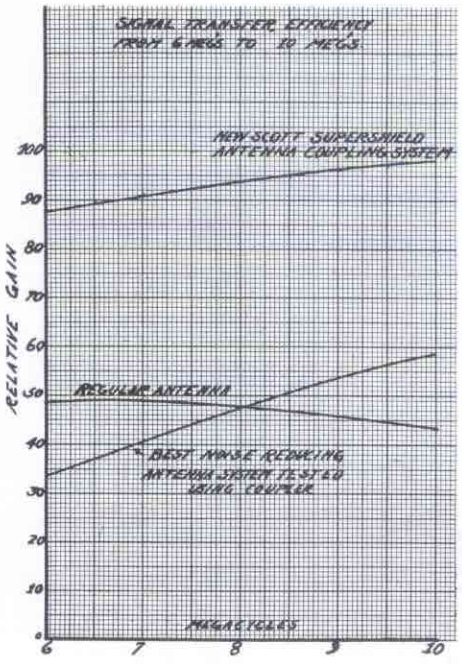
We have tried to make this report of the results accomplished, and the methods used in the Laboratory to definitely prove the superiority of the Scott Supershield Antenna Coupling System, as non-technical as possible, but there will, no doubt, be many hundreds who will be unable to thoroughly understand the data given.

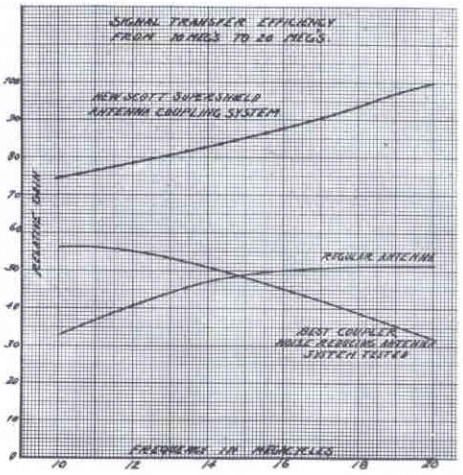
Practical Demonstration at Studios in Chicago, New York and Los Angeles

For those who are unable to understand the data given, we have arranged a practical demonstration in the Studios at the Laboratory in Chicago, at our Studios in the International Building at Rockefeller Center in New York, and at our Studios, 115 North Robertson Boulevard in Los Angeles, California. In each of the three Studios we have arranged a number of electrical devices which will be quickly recognized as very prolific noise producers when trying to bring in stations on the short wave bands.

You Are Invited to See This Remarkable Test

The spark coil, the Violet-Ray machine, and the vacuum cleaner can each be turned on separately, and their interference picked up quite strongly on the receiver connected to regular antenna, while the Receiver with new Scott Supershield Antenna Coupling System built into it, can be operated, and stations brought in with barely a trace of interference or noise from the spark coil, Violet-Ray machine, or the vacuum cleaner, even although they are placed within one or two feet of the receiver or lead-in.





Quiet Reception Now Where Impossible Before

This new development means that in many locations where reception is unsatisfactory on account of the electrical interference, it will be possible to secure quiet reception, *provided the flat top of the antenna can be located either high enough, or at some point outside the interference zone,* for of course, it will be understood no claim is made the Scott Supershield Antenna Coupling System will eliminate noise so strong that it is picked up on the flat top of the antenna, but only interference picked up by the lead-in.

Present Owners of Scott Receivers Can Have New Development Installed

When our work on the Scott Supershield Antenna Coupling System was completed, it would have been an easy matter for the Scott Laboratories to have made it the excuse for announcing a "new model." However, when you buy a Scott Receiver you are assured, by a twelve-year record of fair dealing, that your receiver will never be made "obsolete" by the announcement of a "new model" when it is possible to incorporate in it any subsequent developments perfected in our Laboratory.

Therefore, instead of announcing a "new model," and making present Scott 23 tube receivers *appear* obsolete, we are glad to tell present owners of the 23 Tube Scott Full Range High Fidelity Receiver, that the new Scott Supershield Antenna Coupling System can be built into their receivers at a cost of only $15.00.

More Enjoyable Foreign Reception Guaranteed

It is impossible to accurately describe, by the printed word, the sensational increase in *listening pleasure* this new development makes possible, for only by an actual listening test can you appreciate how much more enjoyably foreign short wave stations can now be received on the Scott as compared with any other Allwave receiver. So sure am I that the new Scott Supershield Antenna Coupling System will give you not only more enjoyable foreign short wave reception than you have ever heard in the past, and that it will enable you to receive stations you have never heard previously because of man-made static, or interference, that I offer you the following guarantee:

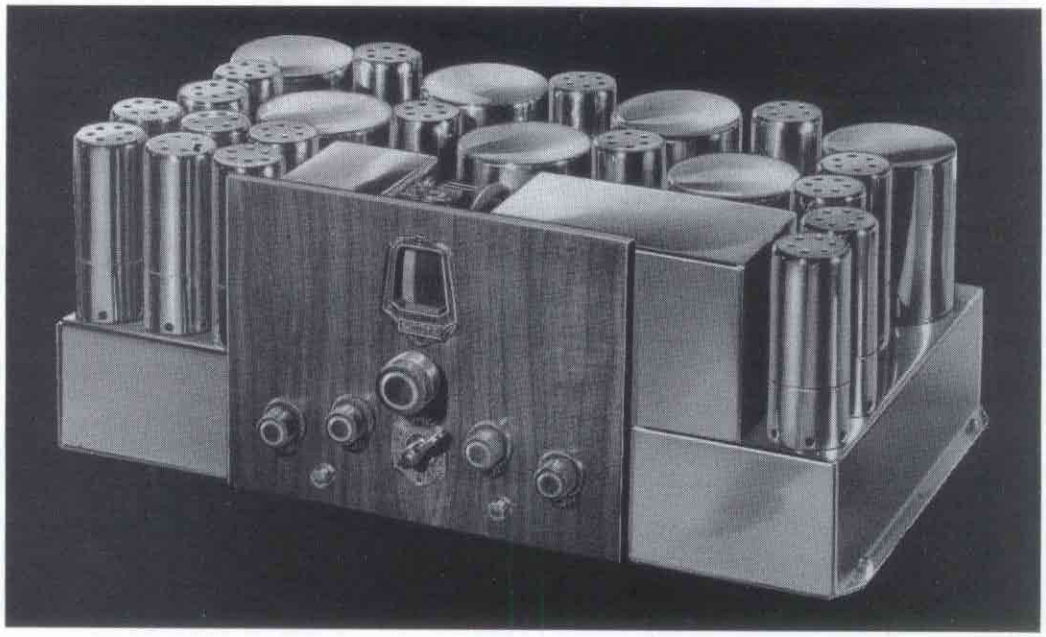
Your order for the new Scott 23 Tube Full Range High Fidelity Receiver will be accepted with the distinct understanding that if it does not *bring in more foreign stations more enjoyably and with greater clarity* than any other receiver, you can return it any time within 30 days after delivery and the purchase price will be refunded.

NEW RADIO COMPARISON CHART

Below you will find the detailed specifications and performance data on the 23-tube Scott Full Range High Fidelity Allwave Receiver arranged in simple form so that they may be compared with those of any other receiver. We believe a comparison with any other receiver available today will quickly convince you that the Scott is, without question, "The World's Finest Radio Receiver."

	The Scott	Other Receiver
1. Is your receiver custom-built to my individual order or is it a standard production type?	Custom-built	
2. Number of tubes used?	23	
3. Is selectivity continuously variable or is it given a permanent setting at the factory?	Continuously Variable	
4. What is the selectivity range?	2 Kc.-16 Kc.	
5. Is your receiver equipped with Sensitivity Compensator, so that sensitivity is automatically increased when selectivity is increased to bring in distant stations?	Yes	
6. What is average sensitivity in microvolts on broadcast band at 2 to 1 signal to noise ratio?	0.5 Microvolts	
7. What is average sensitivity in microvolts on short wave bands at 2 to 1 signal to noise ratio?	.6 Microvolts	
8. Is receiver equipped with Sensitivity Control, so that it can be adjusted to suit local noise conditions. That is, if there is static or electrical interference in my location, can the sensitivity of your receiver be set just below the noise level created by this interference without in any way impairing the A.V.C. action?	Yes	
9. Is receiver completely shielded to prevent pickup on exposed wiring?	Yes	
10. Equipped with built in A.C. line filter to eliminate power line interference?	Yes	
11. Is adjustment provided for high or low line voltage?	Yes	
12. Is your radio provided with protecting A.C. line fuses?	Yes	
13. When tuning up and down the dial searching for a program, can noise between stations be eliminated?	Yes	
14. What is the overall fidelity range?	30-16,000 cycles	
15. If the fidelity range is over 7,000 cycles, is 10,000 cycle attenuator used?	Yes	
16. Is receiver equipped for use of high frequency speakers to extend high frequency range if desired and give full coverage of all audible tones?	Yes	
17. Is the high frequency response variable so that effect of electrical interference and static and also scratch from phonograph records be minimized?	Yes	
18. Is your receiver equipped with a bass (not just a tone control) control so that pleasurable reception may be secured from stations whose carrier hum is objectionable, and also to enable the lower frequencies to be accentuated on certain types of music without cutting the high frequencies?	Yes	
19. Is distortionless program volume range expansion available on both radio and phonograph reproduction.	Yes	
20. Is a convenient switch provided for radio or phono?	Yes	
21. Is the full fidelity range available on phonograph reproduction?	Yes	
22. How many stages of Audio output?	3 stages	
23. What is power output in watts with 2% or less over-all distortion?	30 watts	
24. What is total output of receiver?	50 watts	
25. Is the antenna circuit electrostatically shielded and magnetically balanced in an efficient manner to prevent pickup on lead-in?	Yes	

	The Scott	Other Receiver
26. Are antenna circuits automatically adjusted for each wave band to secure maximum gain?	Yes	
27. How many tuned circuits in the R.F. are used on each band?	3	
28. Does the R.F. stage have a separate A.V.C. system to allow it to operate at maximum efficiency on signals from weak distant stations, yet be prevented from overloading when tuned to strong or super power stations?	Yes	
29. Does the A.V.C. System level the audio output at one microvolt input or less?	Yes	
30. Is separate sub dial provided to accurately log short wave stations?	Yes	
31. Has tuning dial any parallax?	No	
32. Equipped with visual tuning indicator?	Yes	
33. If tuning indicator used, is it amplified to give good visual tuning on signals as weak as one microvolt on all wave bands?	Yes	
34. Equipped with short wave station locater or beat frequency oscillator?	Yes	
35. How many stages of I.F. amplification are used?	4 stages	
36. How many tuned circuits in I.F. amplifier?	9	
37. How many I.F. Transformers are used?	5	
38. Are primaries and secondaries of I.F. transformers tuned by mica or air condensers?	Air Cond.	
39. Are primaries and secondaries of I.F. Transformers electrostatically shielded from each other?	Yes	
40. Is the wave band change switch standard type or special design?	Special design	
41. Are contacts in wave band change switch self cleaning and heavily silver plated to eliminate noise or loss of signal strength caused by poor contact?	Yes	
42. Does the oscillator have voltage regulation to keep the plate voltage constant at all times irrespective of variations in line voltage or signal strength?	Yes	
43. Is a convenient arrangement provided for headphone operation either without or in conjunction with the speaker?	Yes	
44. Are connections provided for extra speaker if desired?	Yes	
45. What is the combined weight of the chassis, amplifier and low and hi-frequency speakers? (No console.)	111 lbs.	
46. In the event I desire to visit your Laboratory, would you be willing to show me through it so that I may see for myself exactly how and where you construct your receivers, the quality of parts you use, the type of technicians who build them, and the laboratory equipment you use to develop and test them?	Yes	
47. If I place an order with you, will you allow me to have it 30 days in my own home, to make a comparison test against any other receiver I am considering?	Yes	
48. If I decide I prefer the other receiver—and I am to be the sole judge—will you, on return of your receiver in condition received—promptly refund my money?	Yes	
49. How many months, or years do you guarantee all parts of your receiver (except tubes) against mechanical defects or breakdown?	5 years	



THE SCOTT *Full Range High Fidelity* RECEIVER

23 TUBES—WORLD WIDE RANGE FROM 13 TO 555 METERS

THE SCOTT FULL RANGE HIGH FIDELITY RECEIVER is custom built to order—by experienced laboratory technicians—in one of the most completely equipped radio laboratories in the country.

Over eleven years ago the first SCOTT RECEIVER established Four World's Records for the consistent, night after night, reception of broadcast stations, not merely one or two thousand miles away, BUT STATIONS 6000 MILES OR MORE DISTANT, and since that time hardly a year has passed in which a SCOTT RECEIVER has not established new reception records. The hundreds of letters we have received from Scott owners, prove very conclusively the receivers I am regularly building and shipping to owners in all parts of the world, easily duplicate these records.

A Laboratory Built Instrument

A SCOTT RECEIVER is built from the highest quality parts, to a precision standard. It cannot be produced in large numbers by factory production methods, but only in comparatively small numbers by highly skilled and special trained laboratory workers.

The SCOTT FULL RANGE HIGH FIDELITY RECEIVER is a 23 tube Superheterodyne receiver with a wave length range of from 13 to 555 meters.

The Selectivity

The Selectivity of the new SCOTT FULL RANGE HIGH FIDELITY RECEIVER is continuously variable from 2 to 16 KC. This means you have at your control ample Selectivity to separate any broadcast stations using frequencies within 10 KC. of each other, regardless of power or location.

The Sensitivity

To bring in distant broadcast stations requires great useable sensitivity. For example: A receiver may have fractional microvolt sensitivity, but if a large percentage of that sensitivity is noise created in the receiver itself, it may reduce the useable sensitivity anywhere from 25% to 75%. High sensitivity combined with a low noise level, is most difficult to attain, but in this new receiver you will find sensitivity, **useable** sensitivity of such a high order that it is a simple matter to bring in stations thousands of miles distant, and listen to them with pleasure.

Station Selection

All wave bands between 13 and 555 meters are completely covered (no gaps) by means of an exclusive mechanical coil changing device perfected in our Laboratory. The small lever directly below the tuning knobs enables you to select in a second, any one of the four different wave bands.

Perfect Undistorted Tone

SCOTT RECEIVERS have always been noted for their very beautiful tone. However, constant research has enabled us in the SCOTT FULL RANGE HIGH FIDELITY RECEIVER to produce an instrument that has even finer tone than any previous model we have ever built.

You will find when you are listening to an orchestra that you will hear instruments in the lower and higher ranges that you have never before heard coming from the speaker of any radio receiver. You will hear violins, trumpets, cymbals and other instruments just as naturally as you would hear them if the orchestra were in front of you. When you listen to a piano, you will hear the notes of the piano coming from your speaker as clearly as if the pianist were playing in your own room for you.

All Parts Guaranteed Against Defect for Five Years

THE SCOTT FULL RANGE HIGH FIDELITY RECEIVER is built from such high quality parts; the actual building of it is done by such highly skilled technicians; all units so impregnated and treated to protect them against the effects of moisture and all adjustments so carefully made and permanently fixed that we believe no part of this receiver will ever break down.

Every SCOTT RECEIVER carries a Five Year Guarantee, and many hundreds of them have been in constant use for years, and are today still serving their owners and giving them perfect satisfaction in nearly every part of the world.

CONSOLE BEAUTY

To Match Mechanical Perfection

Scott consoles are designed especially for Scott Receivers, and are built to meet the exacting tastes of those who want the finest.

Each is a genuine masterpiece of furniture design, craftsmanship and finish.

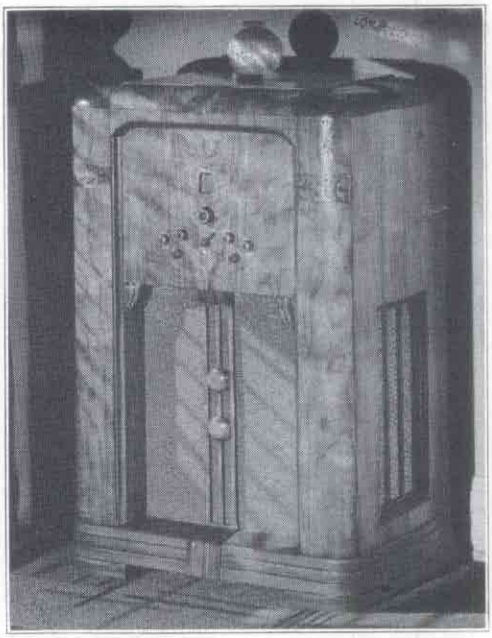
All are not only satisfying to the eye, but also acoustically correct. The result is that both high and low tones are heard without false emphasis. Speech is always clear and distinct, with an entire absence of that "barrel" effect so often noticed in ordinary receivers.

THE TASMAN

The luxurious richness of this console in striped and figured walnut veneers adds distinction to any room.

THE WAVERLY

The simplicity of its severe lines and the selected and figured American Walnut makes this console a delightful creation.



THE WARRINGTON

The graceful lines make this one of our most exquisite consoles, in rotary cut Walnut Veneer and striped Walnut.

E. H. SCOTT RADIO LABORATORIES, INC.

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630 FIFTH AVE., NEW YORK CITY **115 N. ROBERTSON BLVD., LOS ANGELES**