

# SCOTT



# NEWS

NEWS OF LATEST DEVELOPMENTS IN THE SCOTT RESEARCH LABORATORIES

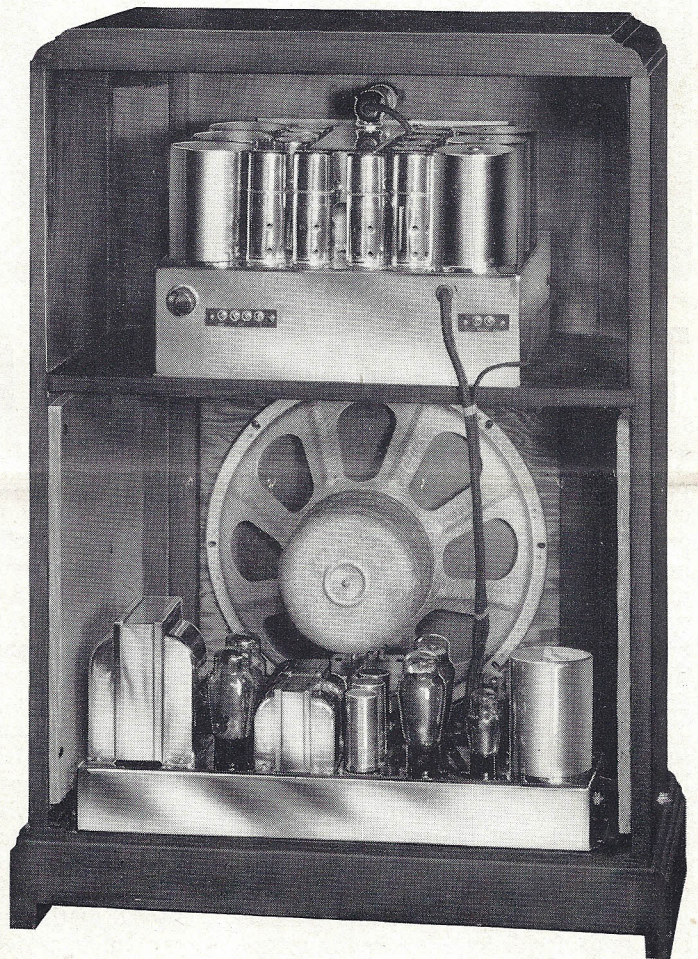
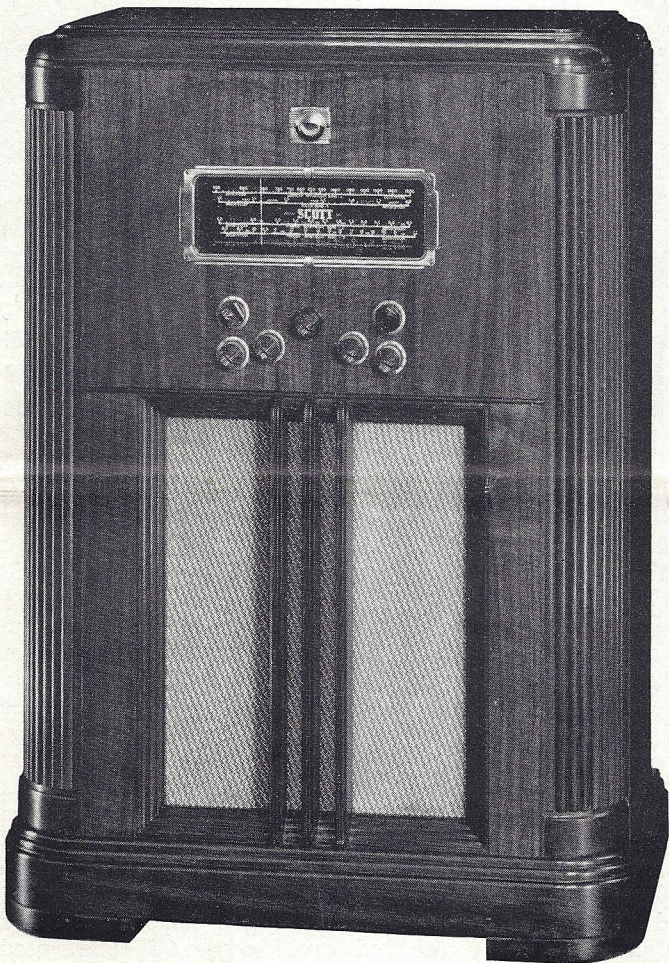
VOL. 11    NEW YORK    DETROIT    CHICAGO    LOS ANGELES    BUFFALO    LONDON    No. 5

## THE SCOTT PHANTOM DELUXE

**"World's Finest Custom Built Radio Receiver"**

*Guaranteed*

To Outperform Any Other Make of Radio in Side by Side Test!



**Front and Rear Views of Scott Phantom Deluxe, Showing the Chassis, 25 Watt Power Amplifier, 15" High Fidelity Speaker and Braemar Console**



# THE SCOTT PHANTOM DELUXE

The SCOTT PHANTOM DELUXE has been designed for those who desire a custom built receiver with high power output and the finest possible fidelity on both broadcast programs and recorded music, with reception at good loud speaker volume, particularly of the daily news broadcasts in English from the shortwave broadcasting stations of London, Paris, Berlin and Rome.

It is so precisely built, incorporates such advanced design, and we believe has fidelity and long distance performance so much higher than any other make of radio receiver available today, at any price, that it is sold with the definite agreement that you have 30 days after it is installed in your home to make any kind of side-by-side tone or reception test against any other make of radio receiver. If the SCOTT PHANTOM DELUXE does not conclusively prove its superiority in these tests—and you

*are to be the sole judge*—you have the privilege of returning it and your money will be refunded.

Sensitive measuring instruments are used in the laboratory to test the various features of a radio receiver's performance such as Fidelity, Sensitivity, Selectivity, AVC action, and Undistorted Power Output, to provide data from which performance curves are drawn. The performance curves of the SCOTT PHANTOM DELUXE are reproduced on the following pages so that they may be compared with those of any other radio receiver, and to provide proof of every performance claim made.

The SCOTT PHANTOM DELUXE uses 20 of the latest and most efficient type tubes as follows: The RF stage uses a 6U7G tube in an extremely efficient circuit developed in our Research Laboratory to produce the highest degree of performance, particularly in the

reception of foreign shortwave stations—A 6B8G tube is used to develop AVC voltage for the RF amplifier—Converter circuit uses a 6L7G tube—the Oscillator circuit uses a 6J5G tube—A VR150 voltage regulator tube is used to reduce oscillator shift due to line voltage variations—In the three stage IF amplifier, two 6K7G tubes are used in the first two IF stages—A 6B8G triple-purpose tube is used which acts as the 3rd IF stage, 2nd detector, and the AVC IF amplifier—In the three stage audio amplifier, a 6K7G tube is used in the first stage, two 6J5G's in pushpull in the 2nd stage, and two 6L6G's in pushpull in the 3rd audio or output stage—A 6J5G tube is used in the Inverse Feedback stage—Two 5U4's are used as rectifiers—a 6E5 tube is used as a tuning indicator—One 6B8G and one 6J7G tube is used in the Record Scratch Suppressor Circuit—A 6H6 tube in the Dickert Noise Limiting Circuit.

# Natural Tone of All Musical Instruments

## Outstanding Feature of the Scott Phantom De Luxe

The large majority of Scott receivers are sold to those who enjoy fine music, both from programs received over the air and from recordings. A comparison of the Fidelity Curve of the SCOTT PHANTOM DELUXE shown on this page with that of the regular production type of radio receiver, will quickly show why the tone of the SCOTT PHANTOM DELUXE is so true, and why each instrument stands out so clearly and naturally—not blended together in a mass of sound that makes it difficult to distinguish the tones and overtones of the various instruments. It is this pure, natural, tonal quality of Scott receivers which has made them the choice of such figures in the musical world as Toscanini, Iturbi, Barbirolli, and many others.

### Scott Phantom Deluxe Fidelity

The chart and the graphic illustration on this page shows the tonal range of the average table model radio, the console type of production receiver, and the new SCOTT PHANTOM DELUXE. This receiver is capable of reproducing every note or tone from 30 to 8,500 cycles, more than twice the fidelity range of the ordinary radio receiver.

### Development of Scott Research Laboratories Provides Perfect Reproduction of Low Tones

The beautifully rich low tones reproduced on the SCOTT PHANTOM DELUXE are a delight to the critical music lover. This greatly extended bass range is made possible by a Bi-Resonator System (developed in our Research Laboratories and used exclusively in Scott receivers) which provides perfect

reproduction of tones down to as low as 30 cycles.

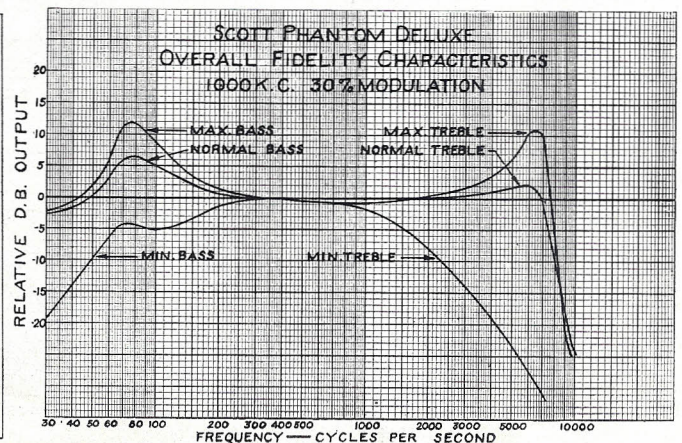
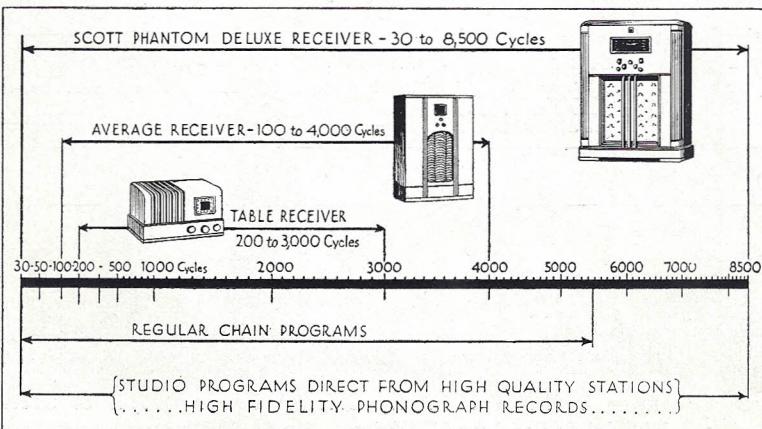
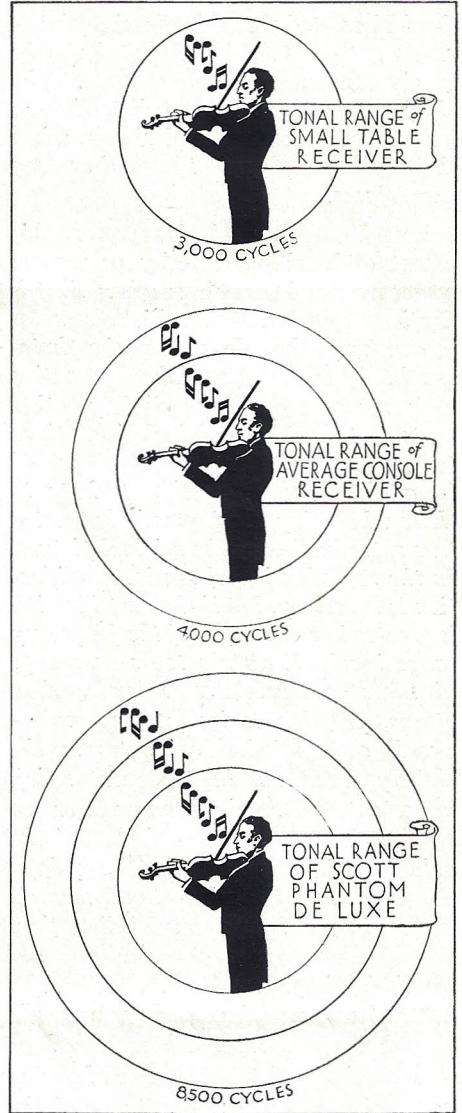
When the usual type of Tone Control is adjusted to provide reproduction of the lower tones, it usually makes voice sound very boomy, deep and unnatural, for such a control merely cuts off the high frequencies. However, in the SCOTT PHANTOM DELUXE, no matter at what point the continuously variable Bass Control is set, the human voice remains clear, crisp, and natural, as our Bass Control affects *only* the bass tones that are actually transmitted over the air or out on the record. It has *no effect whatever on the higher frequencies*. It is for this reason that the spoken voice retains its clearness and naturalness even though you advance the Bass Control to maximum.

### What Higher Frequencies Add to Musical Reproduction

The higher overtones add vividness and timbre to all instrumental or musical reproduction. If these harmonics are not reproduced, you hear only a part of the musical tones or overtones. The SCOTT PHANTOM DELUXE is equipped with a separate Treble or Fidelity Control that affects *only* the treble tones, and is continuously variable, enabling you to adjust the reproduction until it is natural. Until you have *actually heard* a SCOTT PHANTOM DELUXE, you cannot possibly realize what you are missing in the natural reproduction of all musical instruments.

For the information of the radio engineer or those who understand laboratory measurement curves, we are reproducing below the Overall Audio Frequency characteristics, providing scientific laboratory proof of the actual

tonal range of the new SCOTT PHANTOM DELUXE.



# Symphonic Broadcasts and High Fidelity Recordings Now Reproduced With Third Dimensional Effect

The power output of the New SCOTT PHANTOM DELUXE is 25 watts pure Class A (40 watts total output), but it should be noted that this especially large power output is *not* incorporated merely to give the user greater volume. *The chief purpose is to prevent distortion on loud passages or crescendos even when the receiver is played at normal or even low volume.*

Leopold Stokowski discusses this aspect of handling capacity or reserve power from an interesting angle. "Amplification," says Dr. Stokowski, "resembles in some ways the enlargement of a photograph. If we were to take a negative and enlarge some parts slightly, other parts to twice their original size, others to four times the size, the result would be a distortion, interesting perhaps to those who enjoy the fantastic but not a true reproduction of the original picture. In the reproduction of music, amplification is necessary, but if the amplification is greater in some zones of the frequency range involved, certain tones or groups of tones sound relatively louder than others, the harmonies become unbalanced, certain individual notes in the melody stand out in too great relief, important overtones are too weak or too strong, the tone color or timbre of the voices or instruments are changed or degraded, and the whole tonal mass is thrown into a chaotic state of distortion. The result becomes a caricature, and discriminating music lovers would prefer not to hear, in a degraded form, music they know and love. Those who hear such music for the first time can have no conception of its true beauty or of the inspired message it conveys."

## All Dynamic Ranges Handled Without Distortion

It is precisely for these reasons that we have incorporated such ample power output into the SCOTT PHANTOM DELUXE. You have perhaps noticed that the average radio "spills over" and distorts on comparatively strong musical passages, even though the volume of the receiver has been turned down to a very low level. On orchestral works having an immense dynamic range (such as the music of Wagner where great masses of tone are frequently encountered) an audio amplifier must be able to "handle" these passages easily and without distortion so that the full grandeur and magnificence of the music is obtained by the listener. It will be seen from the charts reproduced on this page that on most programs of symphonic music or modern high fidelity recordings, many crescendos or "peaks" occur which rise as high as 20 or 25 watts. These heavy

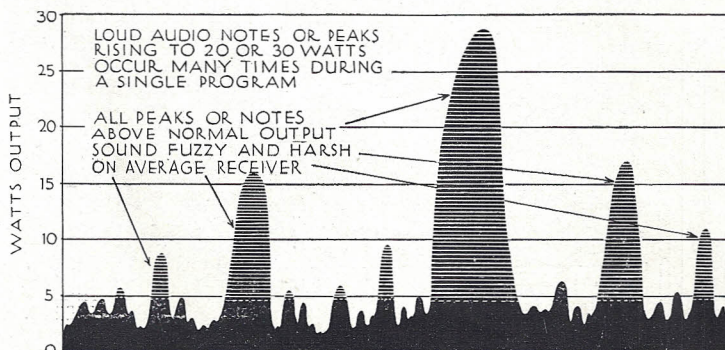
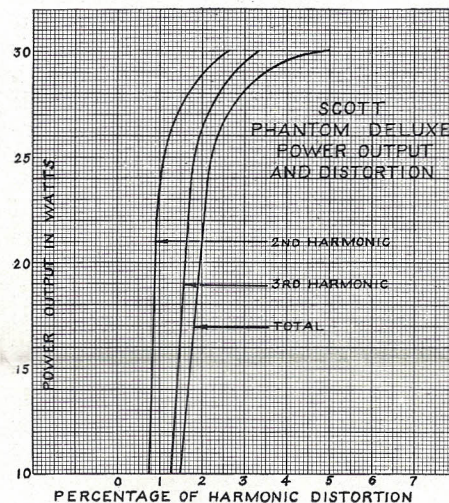
passages overload the average amplifier quite badly if it does not have the necessary reserve power, causing certain notes to sound fuzzy, flat, muffled, or distorted. (The term *watts* is used to designate the intensity of sound.)

## Why Insufficient Power Output Causes Distortion

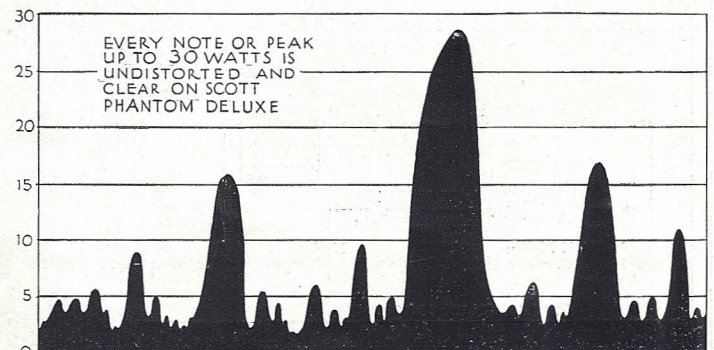
The maximum power output of the average radio receiver is about 4 watts, while the power output of the higher priced models is about 10 watts. It is clearly evident that if the finest reproduction is to be secured, the power amplifier should be capable of handling every "peak" or note up to about 25 watts without overloading. *In many cases, the purchaser of an ordinary radio does not realize that the distortion he hears in his radio is caused by insufficient power output, but blames the quality of transmission, the recording engineer, or perhaps the performing artists. In many cases he even develops a dislike for certain kinds of music which he would really enjoy hearing in an auditorium.*

## 25 Watts Pure Class A Output

The technically minded will find the Power Amplifier Curve reproduced on this page to be extremely interesting, proving as it does beyond all question, the very advanced design and distortionless handling capacity of the SCOTT PHANTOM DELUXE power amplifier. The first point that will be noticed on the curve is the fact that up to 25 watts, the output is pure Class A with a total harmonic distortion of less than 3%—and it must be remembered that harmonic distortion less than 5% cannot be detected by the human ear!



Maximum Undistorted Power Output of Average Radio Receiver Not Over 6 Watts.



Maximum Undistorted Strictly Class A Power Output of Scott Hi-Fidelity Receiver 30 Watts . . Up to 40 Watts Class AB.

Pure Class A amplification is universally recognized as being the most highly perfected form of audio amplification obtainable. This is due to the fact that the two 6L6G tubes used in push pull, together with a specially designed driver stage, allow 75% of the gain to be used for distortion cancellation *in the tubes themselves*, and the last traces of distortion are reduced by a factor of 4 to 1, with the result that 25 watts of pure Class A output is obtained.

### **An Instrument to Reproduce World's Finest Music**

The cost of incorporating such unusual reserve power into a receiver is considerable, and is the principal reason why radio receivers built to sell at low or medium prices have a low power output. While it is true that a lower power output than 25 watts is quite satisfactory for those who never listen to symphonic music or other programs having wide variations in volume when broadcast or recorded, I believe that the prospective purchaser of a SCOTT PHANTOM DELUXE is looking for an instrument which will provide the finest reproduction of the world's greatest music, and for this reason we have provided such ample power output.

### **How Inverse Feedback Improves Speaker Response**

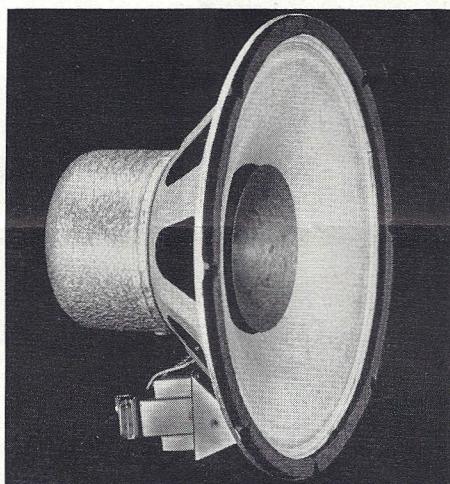
The loud speaker of a radio receiver is the medium through which all tones and overtones are reproduced. The acoustical curves of even the best loud speakers will show many "peaks" and "dips" in the speaker response at various frequencies, which means that certain tones coming in at the "peak" of the speaker are unduly accentuated or made louder

than they should be, while the tones coming in on the "dips" are not heard with sufficient volume.

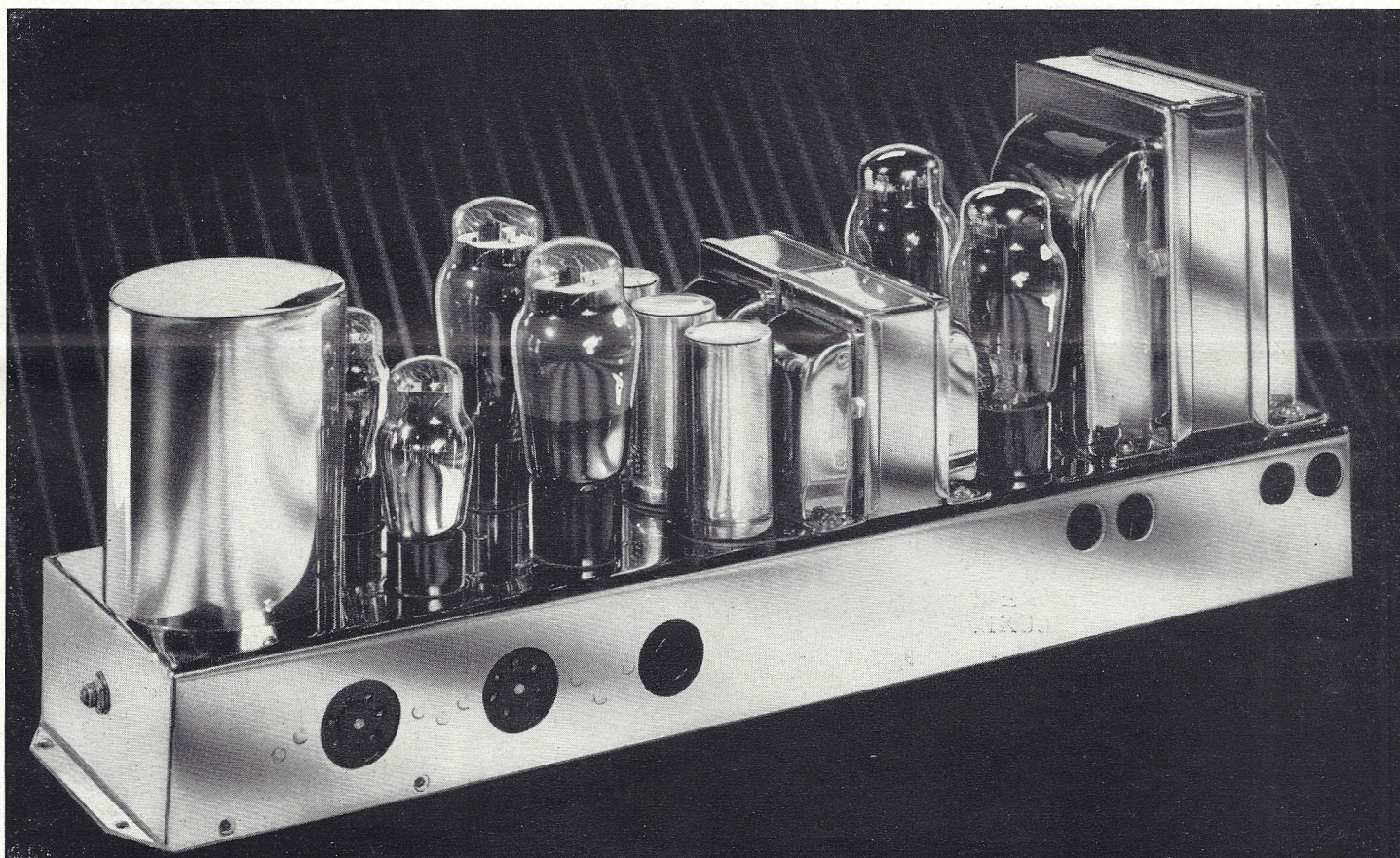
To overcome this imperfection we have incorporated the new Inverse Feedback System in the SCOTT PHANTOM DELUXE audio amplifier which automatically cuts down the "peaks," and brings up the "dips," giving finer and more natural reproduction by flattening out the acoustical response of the speaker by a factor of 2 to 1. In addition to improving the acoustical response of the speaker, it also extends the frequency range at both the low and high frequency ends, and the objectionable "paper rasp" that you notice so often is eliminated.

### **The Scott 15" High Fidelity Speaker**

The large 15 inch heavy duty high fidelity speaker used in the SCOTT PHANTOM DELUXE has been especially designed for high fidelity reproduction and heavy duty performance. It incorporates the very latest developments in loud speaker design, with a 15" curvilinear cone, a heavy voice coil, and a high frequency diffuser. Its frequency response covers all frequencies from 30 to 8,500 cycles, a fidelity range which the ordinary radio speaker is quite incapable of reproducing.



**Scott 15" High Fidelity  
Loud Speaker**



**Power Amplifier for Custom Built Scott Phantom Deluxe**

# Why Scott Phantom Brings in Stations Never Heard on Ordinary Receivers

To bring in distant stations on channels adjacent to powerful locals, extreme selectivity is required. However, for the reception of local stations, extreme selectivity is neither necessary nor desirable.

While the greater part of radio listening is to local programs, there are a number of times when one wishes to tune in a special program from a station outside the local zone, and if this station happens to be on a channel adjacent to a powerful local, it is very often impossible to receive it, or if it is received at all there is so much interference that the reception is unsatisfactory.

Practically all ordinary production-type receivers have a fixed degree of selectivity, which must necessarily be a compromise between the high degree of selectivity necessary to cut through the local stations, and the broad selectivity necessary for high fidelity reception.

## The Ideal Selectivity System

For years radio engineers have tried to combine *in one receiver* a means for securing (1) extreme selectivity to insure that distant stations on channels adjacent to powerful local stations could be received satisfactorily, and (2) minimum selectivity so that when listening to programs from local stations the receiver could be made less selective so that tone quality will not be impaired by the cutting of side bands.

## Selectivity Sharp for DX—Broad for Local Reception

In the SCOTT PHANTOM DELUXE this problem has been solved by means of a Selectivity Control which is *variable*, enabling you to make the receiver as "sharp" as 3.5 kilocycles for DX reception, or as "broad" as 12.5 kilocycles to provide high fidelity reception from local or semi-distant stations.

Owing to the additional cost involved, commercial receivers usually have only one *fixed* degree of selectivity. If you examine the IF selectivity curves reproduced on this page, you will see that the radio engineering ideal of a variable degree of selectivity has been engineered into the SCOTT PHANTOM DELUXE.

## Why Scott Variable Selectivity Secures Finer Reception Under All Conditions

Where the selectivity is variable it is possible to adjust the receiver for the *finest possible fidelity under varying reception conditions*. Where extreme selectivity is required as in the reception of distant stations adjacent to powerful

locals, it is instantly available. If it is desired to receive a distant station that does not have a powerful local station on an adjacent channel, then the selectivity does not need to be so sharp and can be adjusted so that the fidelity is greatly improved.

However, the greatest advantage of the separate variable Selectivity Control incorporated in the SCOTT PHANTOM DELUXE is the fact that it can be broadened out to the full band-width

necessary to reproduce every frequency any station on the broadcast band is transmitting.

## Perfected Double AVC System

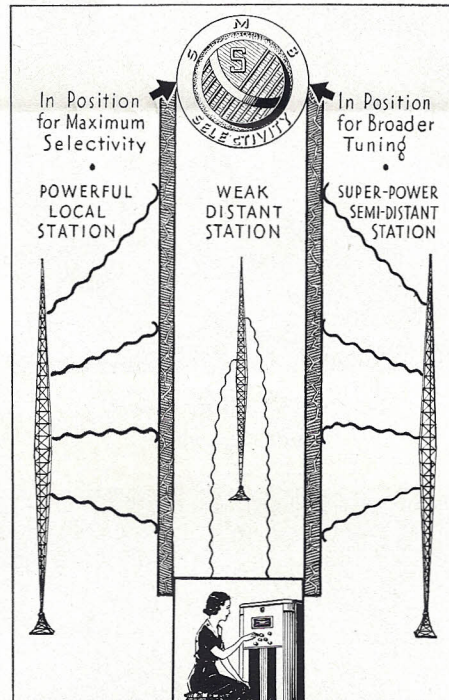
When a radio receiver equipped with a single AVC System is tuned to a weak distant station which is near in frequency to a powerful local station, there is practically no AVC action on the weak station, because the grid of the first RF tube is supplied only with AVC voltage from the IF AVC System, and thereby receives practically no bias voltage.

In this case, a powerful local station will often practically obliterate the weak station you wish to bring in. In the SCOTT PHANTOM DELUXE a separate tube is used to supply the voltage for the RF AVC, so enabling the RF circuit to operate in the presence of strong signals, either above or below the frequency at which the receiver is tuned. This enables the RF amplifier tube to operate at maximum gain under all reception conditions, increasing the signal strength applied to the converter, thereby greatly reducing tube hiss on weak signals, and makes it possible to receive many weak DX stations which would be obliterated by interference on the ordinary radio receiver.

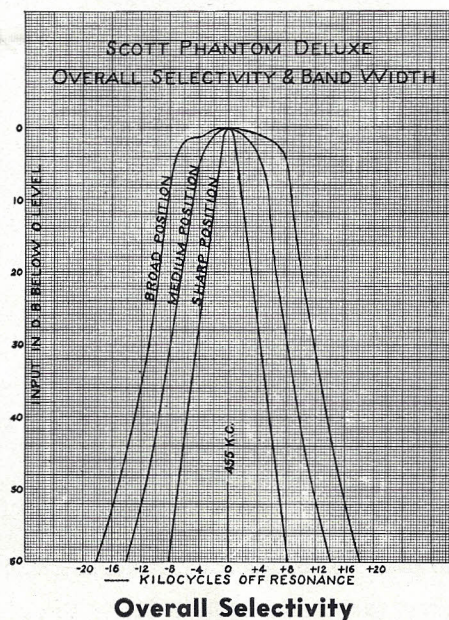
## How Variable Selectivity Control Operates

The operation of the Scott Variable Selectivity Control is quite spectacular to those who are not familiar with what it accomplishes. Suppose that you tune in a desired program, but find that another station on the adjacent dial reading is so powerful that you hear both broadcasts at the same time. As you turn this ingenious control to the left, two things happen simultaneously: (1) the program you want to hear becomes louder or more prominent, and (2) the interfering broadcast is reduced in strength until it is no longer heard. As a result you hear only your desired program without interference from the other station.

In effect, this control enables you to compress into one dial division many stations which on ordinary radio receivers cover several divisions of the dial. As a result, extremely sharp separation of stations close together on the dial is provided. This more-than-ample degree of selectivity, plus the high useable sensitivity of the new SCOTT PHANTOM DELUXE are the chief reasons why owners are able to hear many stations which are never heard on the other radio receivers.



Weak Distant Stations Easily Brought Through Locals



Overall Selectivity

# Why Custom Built Scott Phantom De Luxe Can Give Enjoyable Reception in Many Locations Where Ordinary Radio Fails

Next in importance to fine tone in a radio receiver is its ability to bring in programs from distant foreign countries. Many thousands of radio owners who have tried to tune in foreign programs on the ordinary radio receiver have been disappointed, and are convinced it is not possible to receive these programs with sufficient volume and freedom from noise to make the reception enjoyable.

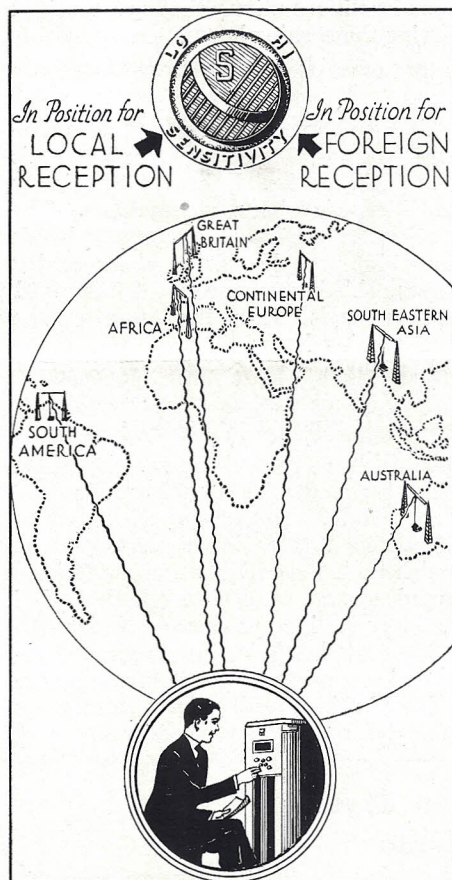
## Effects of "Man-Made" Static and Auto Ignition Noise Tremendously Reduced

The ability of Scott receivers to bring in distant foreign stations is largely responsible for their use today in 153 different foreign countries—practically every part of the civilized world. In many locations, foreign reception is either impossible or very unsatisfactory on the ordinary radio receiver due to interference of a continuous nature picked up from electrical equipment such as vacuum cleaners, oil burners, and other types of electrical appliances, as well as intermittent interference picked up from the ignition systems of passing automobiles. Built into the SCOTT PHANTOM DELUXE is another remarkable development of our Research Laboratories, the Scott Supershield Antenna Coupling System, which not only effectively doubles the sensitivity and distance getting ability of the antenna and receiver combination, but also tremendously reduces "man-made" static. The use of this system is one of the reasons why a Scott is used in many locations where reception, owing to electrical interference, has previously been unsatisfactory.

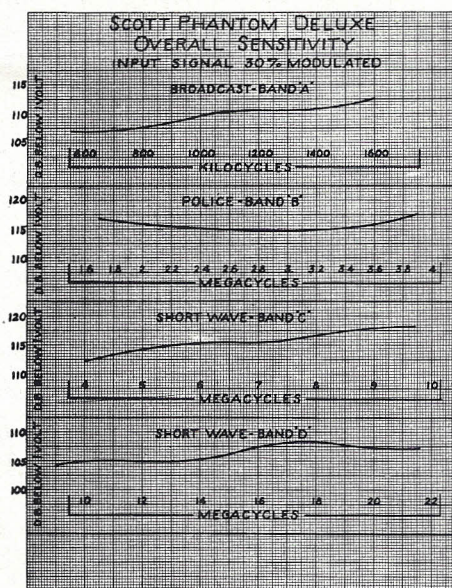
If you live on a traveled street or highway where there is considerable automobile traffic, you have undoubtedly had many shortwave programs spoiled by interference from automobile ignition systems, which sounds like a battery of machine guns coming out of your speaker as a car passes. To effectively reduce this and similar types of intermittent interference we have incorporated the Dickert Automatic Noise Limiter in the SCOTT PHANTOM DELUXE, a development that make possible the reception of weak foreign stations which otherwise would not be heard at all on account of interference caused by the automobile ignition systems.

## Sensitivity Many Times Greater Than That of Ordinary Radios

With a larger part of "man-made" static eliminated by the Scott Supershield Antenna Coupling System and the Dickert



Foreign Stations in All Parts of World Received with Loud Speaker Volume



Overall Sensitivity

Automatic Noise Limiter, the signal now passes through the various circuits in the SCOTT PHANTOM DELUXE each of which has been developed to such a high point of efficiency that the Useable Sensitivity is from three to four times that of the average receiver. To provide control of reception under various conditions a separate Variable Sensitivity Control is used whereby the sensitivity of the receiver can be increased when tuning in weak distant stations, or reduced when tuning in the more powerful nearby stations. *This feature enables the receiver to be adjusted to the exact point at which the quietest reception is secured in difficult receiving locations, or when reception conditions are poor.* This feature enables the owner of a SCOTT PHANTOM DELUXE to bring in many remote stations that cannot be heard at all in many production-type radio receivers.

## Nightly News Broadcasts from London, Paris, Rome, and Berlin

Today the reception of foreign broadcasts is particularly interesting to everyone following world affairs. *Several times each day and evening the shortwave stations of London, Paris, Berlin, Rome, and the capitals of many other foreign countries are transmitting news broadcasts in English especially for listeners-in on the North American Continent.* The clarity, fidelity, and volume with which these broadcasts are received on the SCOTT PHANTOM DELUXE is a revelation to those who have heard them on this remarkable instrument. On another page is given some interesting information on these broadcasts.

It is well known that reception conditions vary from day to day, and the only reliable proof of a receiver's distance getting ability is the Over-all Sensitivity curve. An examination of the Sensitivity Curve of the SCOTT PHANTOM DELUXE will show that the sensitivity is not only remarkably flat on all wavebands, but is several times the useable sensitivity available on the ordinary type of radio receiver.

In the SCOTT PHANTOM DELUXE two separate Automatic Volume Control systems are incorporated to control fading signals. On receivers which do not have a highly developed AVC system, programs from distant stations periodically fade completely in and out. In the SCOTT PHANTOM DELUXE is incorporated what we believe to be one of the most highly perfected and developed AVC systems ever used in any receiver, not excluding the costly special receivers which are used to pick up foreign stations for the purpose of rebroadcasting.

# Ultra High Frequency Band Opens New Field of Static-Free Reception

The SCOTT PHANTOM DELUXE has five wavebands and is calibrated in kilocycles on the Broadcast band and in megacycles on the Police, the two foreign shortwave bands, and the Ultra High Frequency bands. These graduations are etched on a European type glass scale and illuminated by an indirect lighting system, making the reading of the scale easy without the aid of any other lights, either night or day.

## Broadcast Band and High Fidelity Stations

The first waveband covers the regular broadcasting stations in the United States, including the "High Fidelity" broadcast stations located just below the regular broadcast band.

## Police, Airport, Airplane and Amateur 80 and 160 Meter Bands

The second waveband covers those used by police transmitters, airport stations, and transmitters on commercial airplanes used to communicate with the ground, as well as the 80 and 160 meter amateur phone bands.

## South American, 49 and 70 Meter Bands

The third waveband covers principally

the 49 meter and the 70 meter bands on which will be found the great majority of the South American and other foreign broadcasting stations that are received during the evening hours.

## European and 20 Meter Amateur Bands

The fourth waveband covers all wavelengths from 13 to 31 meters, and on this band will be found the great majority of European shortwave stations. The stations on the 13 and 16 meter bands come in strongly during the morning hours, shifting to the 19, 25, and 31 meters bands during the late afternoon and evening hours.

## Ultra High Frequency, Television, Two Way Police, "Spot Broadcasts," 5 and 10 Meter Bands

The fifth waveband covers the Ultra High Frequency band between 60 megacycles and 22 megacycles (5 meters to 13 meters). This is the waveband on which both Television Sound and vision broadcasts are transmitted; both ends of two-way police systems by which the officers at headquarters broadcast instructions and are answered back by the officers in the squad cars; broadcasts by "on the spot" announcers who carry

portable transmitters to describe the action of floods, fires, riots, sport events, and disasters.

Recently you may have noticed considerable publicity on experimental Ultra Shortwave Broadcasts, and reporters have made the assertion that broadcasting on the Ultra Short Wave Lengths will ultimately obsolete radio receivers which do not cover these wave lengths. I believe this statement is correct, but broadcasting on the regular broadcast and short wave bands now in general use *will never be discontinued*, because they are the *only* wave lengths that provide *consistent reception*, day or night.

Until more of these stations are on the air most of your tuning will be done on the broadcast and shortwave wave lengths now in general use, but the Ultra High Frequency Wave Band is incorporated in the CUSTOM BUILT SCOTT PHANTOM DELUXE to give you an instrument of advanced design that will be up to date for many years to come, and one which will not only bring you the programs on the air today, but also those transmitted when we have regular broadcasting on the static-free Ultra High Frequency Wave Bands.

## Latest Time Schedules for European Stations Sending Daily News Broadcasts

A large number of radio listeners do not know that at the present time England, France, Germany and Italy are transmitting daily programs for a certain number of hours each day *in English*, that are "beamed" by using special antennae directional to the U. S. A., so that news and music reaches the ears of American listeners with good volume and clarity.

To make sure that the American people will know that these broadcasts *are intended especially for them*, England, France, Germany, and Italy are printing the complete programs in *English*, and are sending these to American listeners who desire them a month in advance.

If any reader interested in knowing how to secure these advanced daily programs of any of the above countries will write me, I will be glad to give information on how they can be secured.

Below is the summer-time schedule with the approximate time the English news is broadcast from these countries, with the wavelengths they are being transmitted on.

### English Transmissions

|            | EST            | CST            | MST            | PST            | WAVE-LENGTHS |
|------------|----------------|----------------|----------------|----------------|--------------|
| Big Ben..  | 4 P.M.         | 3 P.M.         | 2 P.M.         | 1 P.M.         | 17.79 Megs.  |
| News....   | 4:30 P.M.      | 3:30 P.M.      | 2:30 P.M.      | 1:30 P.M.      | 17.79 Megs.  |
| Music etc. | 5 to 6 P.M.    | 4 to 5 P.M.    | 3 to 4 P.M.    | 2 to 3 P.M.    | 17.79 Megs.  |
| Sport      |                |                |                |                |              |
| News..     | 6:20 P.M.      | 5:20 P.M.      | 4:20 P.M.      | 3:20 P.M.      | 11.75 Megs.  |
| News....   | 7:30 P.M.      | 6:30 P.M.      | 5:30 P.M.      | 4:30 P.M.      | 11.75 Megs.  |
| Music etc. | 8 to 9:15 P.M. | 7 to 8:15 P.M. | 6 to 7:15 P.M. | 5 to 6:15 P.M. | 11.75 Megs.  |
| Music etc. | 10 to 11 P.M.  | 9 to 10 P.M.   | 8 to 9 P.M.    | 7 to 8 P.M.    | 9.51 Megs.   |
| News....   | 11:00 P.M.     | 10:00 P.M.     | 9:00 P.M.      | 8:00 P.M.      | 9.51 Megs.   |

### French Transmissions

|                     | EST       | CST       | MST       | PST       | WAVE-LENGTHS          |
|---------------------|-----------|-----------|-----------|-----------|-----------------------|
| Music.....          | 7:30 P.M. | 6:30 P.M. | 5:30 P.M. | 4:30 P.M. | 11.71 and 11.88 Megs. |
| News in French....  | 8:15 P.M. | 7:15 P.M. | 6:15 P.M. | 5:15 P.M. | 11.71 and 11.88 Megs. |
| Music.....          | 8:40 P.M. | 7:40 P.M. | 6:40 P.M. | 5:40 P.M. | 11.71 and 11.88 Megs. |
| News in English.... | 9:00 P.M. | 8:00 P.M. | 7:00 P.M. | 6:00 P.M. | 11.71 and 11.88 Megs. |
| Music.....          | 9:20 P.M. | 8:20 P.M. | 7:20 P.M. | 6:20 P.M. | 11.71 and 11.88 Megs. |
| Talk in English.... | 9:25 P.M. | 8:25 P.M. | 7:25 P.M. | 6:25 P.M. | 11.71 and 11.88 Megs. |

### German Transmissions

|                     | EST        | CST       | MST       | PST       | WAVE-LENGTHS                    |
|---------------------|------------|-----------|-----------|-----------|---------------------------------|
| Call Letters.....   | 4:50 P.M.  | 3:50 P.M. | 2:50 P.M. | 1:50 P.M. | 15.20 and 11.77 and 11.80 Megs. |
| News in English.... | 6 P.M.     | 5 P.M.    | 4 P.M.    | 3 P.M.    | 15.20-11.77 and 11.80 Megs.     |
| Light Music.....    | 6:15 P.M.  | 5:15 P.M. | 4:15 P.M. | 3:15 P.M. | 15.20-11.77 and 11.80 Megs.     |
| Talk in English.... | 7:30 P.M.  | 6:30 P.M. | 5:30 P.M. | 4:30 P.M. | 15.20-11.77 and 11.80 Megs.     |
| News in English.... | 8:15 P.M.  | 7:15 P.M. | 6:15 P.M. | 5:15 P.M. | 15.20-11.77 and 11.80 Megs.     |
| Concert.....        | 8:30 P.M.  | 7:30 P.M. | 6:30 P.M. | 5:30 P.M. | 15.20-11.77 and 11.80 Megs.     |
| Talk in English.... | 9 P.M.     | 8 P.M.    | 7 P.M.    | 6 P.M.    | 15.20-11.77                     |
| Concert.....        | 9:15 P.M.  | 8:15 P.M. | 7:15 P.M. | 6:15 P.M. | 15.20-11.77                     |
| News in English.... | 10:30 P.M. | 9:30 P.M. | 8:30 P.M. | 7:30 P.M. | 15.20-11.77                     |

### Italian Transmissions

|                                | EST            | CST            | MST            | PST            | WAVE-LENGTHS         |
|--------------------------------|----------------|----------------|----------------|----------------|----------------------|
| News in English and Music..... | 7:30 to 9 P.M. | 6:30 to 8 P.M. | 5:30 to 7 P.M. | 4:30 to 6 P.M. | 9.83 and 11.81 Megs. |

NOTE: IF ON DAYLIGHT SAVING TIME ADD 1 HOUR.



# A Brief Summary of the Special Features Incorporated in the New Scott Phantom De Luxe

- (1) **OVERALL FIDELITY** practically flat from 30 to 8,500 cycles—approximately twice the tonal response of an ordinary radio receiver. Enables you to hear harmonics and overtones of many orchestral instruments which do not “register” on ordinary radio receivers.
- (2) **POWER OUTPUT 25-40 WATTS** (almost 4 times that of average radio) providing ample reserve power to smoothly reproduce without detectable distortion the “peaks” which occur in symphonic broadcasts and records.
- (3) **TWENTY TUBES** latest type octal base, several of which are double-purpose. (See page 2.)
- (4) **INCREASED WAVE LENGTH RANGE** (5 to 550 meters) including Ultra High Frequency wave lengths, Television bands, Standard Short-wave bands, and regular Broadcast band.
- (5) **SPECIAL RF AMPLIFICATION** on all bands.
- (6) **CONTINUOUSLY VARIABLE HIGH FIDELITY CONTROL** to secure fine quality reproduction even when Variable Selectivity Control is at maximum.
- (7) **CONTINUOUSLY VARIABLE BASS CONTROL** operating full range high “Q” Bass Bi-Resonator system which does not muffle voice, or affect the higher frequencies in any way even when control is at maximum.
- (8) **VARIABLE (INSTEAD OF FIXED) SELECTIVITY** makes it possible to secure razor-sharp Selectivity from 3.5 kc. for DX reception to 12.5 kc. for High Fidelity reproduction. This control enables you to take a strong station which covers several dial divisions and, in effect, compress it into *one degree* or less.
- (9) **THREE STAGE IRON CORE I. F. AMPLIFIER** one of the most powerful and highly advanced ever incorporated in a superheterodyne.
- (10) **FIVE NOISE-REDUCING SYSTEMS** providing what we believe to be the quietest long distance reception attainable today in a home-type receiver.
- (11) **SEPARATE ANTENNA CONNECTIONS** for two different aerials if desired, a special one for the Ultra High Frequency Band, and the Scott Super Double Doublet Antenna for all other bands.
- (12) **SPECIALLY DESIGNED 15" HIGH FIDELITY LOUDSPEAKER** which distributes higher frequencies to all parts of the room. On musical broadcasts or records, this Non-Directional Sound Diffusion System gives effect of a spread-out orchestra.
- (13) **SCOTT NEEDLE SCRATCH SUPPRESSION** practically eliminates surface noise when playing records without affecting High Fidelity at normal volumes.
- (14) **IMPROVED SCOTT SUPERSHIELD ANTENNA COUPLING SYSTEM** tremendously reduces local interference now picked up on the Antenna *lead-in* from vacuum cleaners, oil burners, and other electrical appliances.
- (15) **THREE STAGE AUDIO AMPLIFIER** similar in design to those used in high grade broadcasting stations.
- (16) **STABILIZED OSCILLATOR WITH VOLTAGE REGULATION** to reduce (1) drifting or “creeping” of shortwave stations, and (2) “twisting” or distortion on shortwave stations.
- (17) **CONTINUOUSLY VARIABLE SENSITIVITY CONTROL** for securing greatest sensitivity consistent with the electrical interference level of your own particular location.
- (18) **REMOTE CONTROL OPTIONAL.** At nominal cost, receiver and record changer can be motorized to operate from several remote locations by means of small compact keyboards.
- (19) **EUROPEAN SLIDE RULE DIAL** with indirect lighting. Large block-type lettering makes it easy to locate and identify the various bands and frequencies.
- (20) **TWO TUNING SPEEDS,** one for preliminary shortwave tuning where only approximate dial settings are required. The slow speed is for precision adjustments when tuning in elusive distant stations.
- (21) **NEW SCOTT SUPER DOUBLE DOUBLET ANTENNA SYSTEM** effectively reduces electrical interference picked up on *flat top* of antenna, by giving greater antenna response on all wavebands. (Optional at \$12.50 extra.)
- (22) **USABLE SENSITIVITY** (distance getting ability) so great that a shielded attenuator had to be added to signal generator before it was possible to even measure the extremely weak transmissions (0.6 to 10.0 microvolts) which were tuned in and amplified with this new receiver.
- (23) **TWO AUTOMATIC VOLUME CONTROL SYSTEMS** (instead of the usual single system) which keep transmissions from distant stations at a comparatively even volume level and reduce fading.
- (24) **INVERSE FEED-BACK SYSTEM** which automatically maintains practically flat acoustical response over a very wide frequency range, eliminating the annoying “paper rasp” produced by many receivers when certain tones or frequencies are reproduced.
- (25) **NEW DICKERT AUTOMATIC NOISE LIMITER** reduces the effects of automobile ignition noise and other intermittent-type electrical interference so that many foreign shortwave programs, virtually blotted out by such noise on the ordinary radio, can now be received with remarkable intelligibility.
- (26) **HIGHLY EFFICIENT NEW CIRCUIT ARRANGEMENTS** designed to eliminate tube hiss, thus providing still quieter reception of weak transmissions from distant stations.
- (27) **ELECTRON RAY TUNING** is of great value in (1) assuring a degree of accuracy impossible to obtain with receivers which must be tuned by ear alone, (2) locating weak stations which you might otherwise easily pass over, and (3) locating shortwave stations which “stand by” for a considerable length of time without broadcasting.
- (28) **CALIBRATION** as precise and accurate as that of other fine laboratory instruments. Once a station has been tuned in, the dial reading is guaranteed not to shift more than two-tenths of one percent.
- (29) **TUNER AND AMPLIFIER MOUNTED ON TWO SEPARATE 14 GAUGE STEEL CHASSIS** (instead of using only one base for both) avoids objectionable hum present in many modern superheterodynes.
- (30) **HIGH FIDELITY RECORD REPRODUCTION** by merely connecting record player to terminals provided on chassis. No transformers, no extra parts, and no changes in the receiver are necessary. All tone adjustments available for record reproduction.
- (31) **SILENT TUNING BETWEEN STATIONS** obtained by limiting maximum sensitivity of the IF system when control is at minimum, without in any way affecting action of the AVC system on stations above noise level.
- (32) **COMPLETE SHIELDING** so efficient that not the slightest sound of a signal can be heard from any station, even a powerful local, when antenna and ground are isolated and disconnected.
- (33) **BOTH CHASSIS FINISHED IN GLEAMING CHROMIUM** (instead of commonly used cadmium) for maximum protection from salt air and dampness.
- (34) **IMPREGNATED FOR EXTREME CLIMATIC CONDITIONS.** Every vital part is impregnated and hermetically sealed the same as fine scientific measuring equipment so that the instrument will stand up for many years under conditions which would render an unprotected receiver useless.
- (35) **GUARANTEED FIVE YEARS.** Every part (except tubes) replaced free of charge upon return to Laboratories.
- (36) **CUSTOM BUILT TO ORDER** for DX enthusiasts, musicians, scientists, and critical laymen listeners who want a super-efficient instrument that only specialized hand craftsmanship can produce.



# JOSÉ ITURBI

WORLD FAMOUS PIANIST  
AND  
CONDUCTOR OF THE  
ROCHESTER SYMPHONY ORCHESTRA

From 1919 to 1923 Mr. Iturbi was head of the Piano Department of the Geneva Conservatory, and after a successful season at Queens Hall, London, made his American debut in 1928 with the Philadelphia Symphony Orchestra as soloist. Mr. Iturbi has been guest conductor of many leading American orchestras, and four years ago was engaged as the regular conductor of the Rochester Philharmonic Orchestra.

I feel honored by the fact that Senor Iturbi has chosen a Scott as the one supreme instrument which meets his requirements for finest musical reproduction. His letter to me, reproduced on this page will reveal why a Scott is eminently the musicians' radio—an instrument that is generally acknowledged the world's finest.

## World-Famous Leaders Are Scott Owners

A good yardstick of any article's merit is a list of those who have purchased it for their personal use. While no definite statistics are available, it is generally conceded that Scott Laboratories build the greatest percentage of all fine radio receivers bought in America. A complete file of the distinguished individuals and organizations who have bought these custom instruments would occupy several hundred pages, but the brief listing below may convey some idea of how universally Scott receivers are accepted by those who are in a position to acquire the very finest equipment available regardless of cost.

### MUSIC

John Barbirolli  
Richard Bonelli  
Lauritz Melchior  
Arturo Toscanini

### INDUSTRY

Phillip Armour  
Henry Ford  
Charles F. Kettering  
William K. Vanderbilt

### ART, LITERATURE, DRAMA

Ernest Hemingway  
Eugene O'Neill  
Maxwell Parrish  
Mary Roberts Rinehart

### SOCIETY

Mrs. J. Ogden Armour  
William L. Mellon  
Mrs. Honoré Palmer  
George Vanderbilt

### SCREEN AND RADIO

Don Ameche  
John Barrymore  
Robert Montgomery  
Robert Taylor

### UNIVERSITIES

Columbia  
Illinois  
Southern California  
Wisconsin

### ROYALTY AND NOBILITY

His Majesty, King of Belgium  
The Duke of Sutherland  
Baron Robert De Rothschild  
The Sultan of Johore

### GOVERNMENT

United States Coast Guard  
Royal Canadian Mounted Police  
National Bureau of Standards  
Government of Australia

270 Riverside Drive,  
New York City.  
April 5, 1939.

Dear Mr. Scott:

After using your radio for a few weeks, my only regret is that I have deprived myself of its fine performance for so many years.

It has an indefinable something about it that is rather difficult to describe. Let me say that its tonal quality, both for orchestra and piano, is simply wonderful and the reproduction is so faithful that one can hardly distinguish between an original performance and the reproduction. I wish to congratulate you on such a remarkable instrument.

I am delighted with my Scott. It has provided an indefinitely closer approach to perfection than I ever thought possible.

Sincerely yours,

Mr. E. H. Scott,  
4450 Ravenswood Avenue  
Chicago, Ill.

# Recent Purchasers Testify to Almost Incredible Results of Scott Receivers

## Comparison Would Be Ridiculous

"As for my SCOTT PHANTOM, it is the *last word*, a REAL musical instrument. In fact, I had no idea radio reception could be so perfect. I reserved judgment until I had absorbed "Othello" Saturday afternoon from end to end, I could not have left had I wanted to.

The Scott Phantom is so far ahead of any receiver I have heard that any comparison would be ridiculous, and I have heard plenty of them."

—Frank J. Myers, Ventnor, N. J.

## Phantom Ignores Rumor of Poor Receiving Location

"Our new Scott Phantom has been installed and needless to say we are delighted with it. Reception in this part of the country is generally considered poor, but apparently this machine doesn't believe the rumor, as its reception is remarkable."

—F. D. Glidden, Santa Fe, N. M.

## A Real Gift to Music Lovers

"I received my Scott Phantom safely and I am more than satisfied with the entire performance of this receiver, a real gift to music lovers. Its tonal quality is far more than pleasing to the ear, its life-like reproduction combined with the beautiful construction and finish is a joy to one who wants the best in radio. After putting this receiver through various tests, I can honestly say it can do on short-waves what commercial sets need a crystal to do. I enjoy listening to long-wave programs in the entire United States without any fading whatsoever. I am happy to say that with all the automobiles, subway, street cars, and Neon electrical signs in my area, I enjoy listening to both short and long waves without any man-made static interference."

—L. Santos, Brooklyn, N. Y.

## Almost Incredible Reception in Poor Location

"Just a few remarks in justice to the Scott Phantom which I have. It is truly an instrument of quality, the mechanical and electrical features are of the finest, workmanship is superlative, and the tone quality is positively the best I have ever heard. Its clearness and full roundness of tone are unapproachable by any other receiver, and I have listened to many—some of which cost double the price of a Phantom.

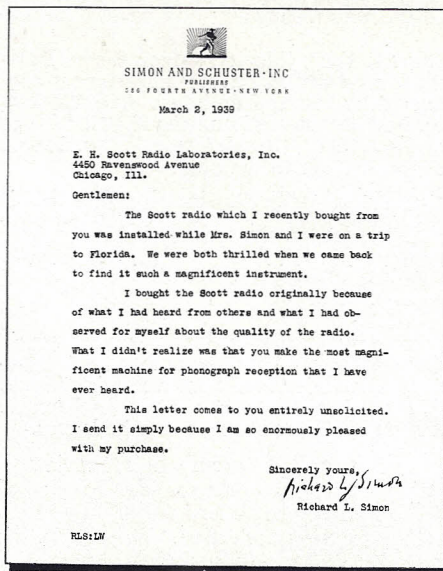
I find tuning very simple on all wave bands and at this time may I state that my fourteen year old daughter has tuned in

time and again, England, France, Germany and South American stations with ease, good fidelity and volume. If you will remember my location for radio reception is poor, especially on short waves. Along with this handicap the antenna (Super Double Doublet) had to be shortened to 35 feet on account of cramped space.

Up to this writing I have tuned in many stations located in different parts of the world and have enjoyed many hours of fine reception.

It has been a pleasure to do business with you, and may you continue to turn out the world's best radio receiver."

—Mr. F. J. Engelmann, Yeadon, Pa.



## No Claims Exaggerated

"We received the Phantom and have been enjoying remarkable radio performance. We consider it a super radio in every respect—none of your claims have been exaggerated.

We had always before confined our radio entertainment to a few super stations on which we were sure of good reception. Since we have had the Scott, we have had many stations which we did not know existed, and they come in clearly and plainly. Many of these stations have remarkable programs and afford good entertainment.

The many controls on the Phantom allow adjustments of tone to suit any particular type or program.

We have always had very good radios and have been well satisfied, but this Scott is so far ahead in every way that we find it hard to even make a comparison. We do know,

however, that it has opened a field of radio enjoyment that we didn't know existed."

—A. A. Karcher, St. Joseph, Mich.

## The Finest in Radio

"The fidelity in reproduction has been most astounding to numerous of our friends, and we, ourselves, feel that we are absolutely 'spoiled' insofar as enjoyment from other makes of receivers is concerned. In addition to superlative reception via the broadcast bands, especially the Sunday morning half-hour from the Mormon Tabernacle at Salt Lake City, we find that we can at will travel to many foreign lands and, by slight imagination, picture ourselves 'midst strange colors, races, and creeds.

We find that it is much more comfortable to listen to the old masters while seated on a comfortable chair or davenport than it is to sit on a hard wooden seat in a none too well ventilated auditorium—perhaps a true indication of the extent to which we have been 'spoiled' by our Scott.

It must be a source of much comfort and satisfaction to you to realize, from the many commendatory letters which you receive, that you have made such a fine contribution to the peoples of the world. You have gladdened the hearts of many music lovers, you have permitted many of us to reach out into distances which we might otherwise consider as non-existent. May you continue to develop and produce that which is finest in radio and reproduction."

—J. G. CORRIN, Los Angeles, Cal.

## Picks Up Howard Hughes On Round World Flight

"A recent guest was very much impressed by the reception of our Scott. At the time he came in I was playing England and at his request I tuned in Germany, Hawaii, and several Latin American stations just to give him some idea of what the set would do.

You will remember that when we got our receiver we were supposed to be in a hard spot to get good reception and other makes of radios couldn't be depended on to give reception when you wanted it.

Our greatest thrill to date was picking up Howard Hughes on his round the world flight. He was approaching Berlin flying at 16,000 feet at 205 miles per hour. He was contacting a ground crew getting weather reports and giving his location."

—Wm. E. Wilson, San Bernardino, Calif.

# THE SCOTT RECORD REVIEW

Those who do not own a record player, either automatic or single, are missing fully half the pleasures that a fine radio receiver will provide. Today, the science of recording has been perfected to such an extent that (given a superlative reproducing medium such as a Scott) it is virtually impossible to distinguish between the quality of a fine recording and that of a studio broadcast, provided the receiver incorporates a needle scratch suppression system which has no effect on fidelity at normal volumes. As a matter of fact, I believe that the fidelity range of many Victor albums is even greater than that of the average radio broadcast, particularly chain programs.

When the selection of available radio programs is not to your liking, there is nothing more deeply satisfying than to relax in your favorite chair and listen to the music of your own individual choice—a truly Custom Built concert arranged especially for your taste and mood.

For those who have a Scott, but no record player, it is an easy matter to complete your equipment *without investing in an expensive combination cabinet*. Either the Scott Single

**"The Magic Flute" (Mozart) Berlin Philharmonic Orchestra conducted by Sir Thomas Beecham. Nine 12" Victor Red Seal Records—Album number AM 541 for Automatic Record Changer. Album number M 541 for Single Record Players.**

Undoubtedly one of the finest operatic recordings in existence. The complete opera is divided into two albums, nineteen records in all, and was probably made in the auditorium rather than in a recording studio, for the quality is such that one is effectively carried right into the opera house. The voices are clear, distinct, and absolutely natural, just as you would hear them when seated in the first few rows of the auditorium. As I listen to this superb piece of work I cannot help but wonder why people should deprive themselves of such magnificent entertainment between opera seasons (or if they are far removed from musical centers) when this glorious music can be brought right into their own living room which, after all, is the ideal spot for absorbing the inspired beauty of all great music.

**"Dance of the Hours" (Ponchielli) From the Opera "Gioconda"—Organ Solo by Lew White. One Victor Black Seal 12" Record number 36,225. Tchaikowsky's "Waltz of the Flowers" on Other Side.**

While I realize that the orchestral version of this familiar selection is, from a musical standpoint, perhaps more satisfying, nevertheless this recording will be of particular interest to those who want the selection complete *on one side*. Also, it is an excellent reproduction of the organ, an instrument that usually records very poorly. There is probably a great deal of cutting on the part of the arranger so that the selection will not exceed one side of the record, but I doubt whether you would detect the omissions unless you are familiar with every bar of the score. These cuts have been so admirably figured that when the record ends

you have the feeling that the selection has been played completely without omissions all the way through.

**"Non E Ver" (Mattei)—Igor Gorin, Baritone, with Orchestral Accompaniment conducted by Wilfred Pelletier. One 12" Victor Red Seal Record number 12,437. "Largo al Factotum" (Rossini from "The Barber of Seville" on Other Side.**

I can say with all sincerity that this is the finest baritone recording I have ever heard, bar none. When it has finished playing, the invariable comment is "THAT is music"!

**"Sacre du Printemps" (Rites of Spring) (Strawinsky)—Philadelphia Orchestra—four 12" Victor Red Seal Records. Album AM 74 for Automatic Record Changer. Album M 74 for Single Record Players.**

Last month I promised to review a strictly modern work for the benefit of those who wished to add at least one such album to their collection. Before playing it, be sure to carefully study the pamphlet which accompanies it, and if possible, read something about Twentieth Century music. I might point out that when you listen to this recording—or to any other modern work—do not listen for melody or harmony as we know it, for you will find little if any. Listen instead for the brilliant instrumentation, the counterpoint, and the interplay of musical sounds.

**"Twenty-four Preludes" (Chopin)—Alfred Cortot, Pianist. Four 12" Victor Red Seal Records. Album AM 282 for Automatic Record Changers. Album M 282 for Single Record Players.**

If you are searching diligently for the ONE perfect piano recording, then you need look no further, for here is one which in my opinion will delight the most critical listener. The piano tone is full, round, and

Record Player or Scott Automatic Record Changer may be installed in a compact chairside cabinet (such as our Warwick) and conveniently placed next to your favorite chair for easy access, while the receiver itself may be placed against the opposite wall so that the full sound will travel directly toward you—the ideal arrangement for maximum enjoyment of recorded music.

Many marvelous recordings have been released in recent months, and the purpose of this monthly column is to point out those which we consider to be the finest, that is, free from such inherent flaws as muffled tone, "wows," poor fidelity, and a high scratch level. In other words, the recordings we review from time to time in this column may be confidently selected by the purchaser as representing the last word in recording science. There are, of course, many other fine Victor recordings, but limited space makes it possible to review only the most outstanding releases of the past few months. If you did not receive the previous reviews we will be glad to mail you copies on request.

rich with an almost entire absence of needle scratch which is so objectionable on most piano records we have heard.

**"Symphony No. 67 in F Major and Symphony No. 80 in D Minor (Haydn)—Orchestra of the New Friends of Music conducted by Fritz Stiedry. Five 12" Victor Red Seal Records. Album AM 536 for Automatic Record Changers. Album M 536 for Single Record Players.**

Aside from its technical perfection, this album has another very desirable quality which will be of interest to all owners of an automatic record changer. Symphony No. 67 is complete on the top side of the records, and Symphony No. 80 is complete on the under side of the records. Merely load the changer with the five records, and you can enjoy either symphony *all the way through* without turning the records over after the first half has been played.

**"Early Choral Music"—The Trapp Family Choir. Five 10" Victor Red Seal Records. Album number M 535.**

Each side of the five records is complete in itself, and therefore the records can be played in any sequence. This accomplished old-world group of artists gives us an incomparable interpretation of music which may sound strange to modern ears on first hearing, but which undoubtedly will be played again and again once you have become accustomed to it.

**"Duets for Soprano and Tenor" (Schumann)—Lotte Lehmann and Lauritz Melchior with Orchestra conducted by Bruno Reibold—Two 12" Victor Red Seal Records. Album M 560.**

The various sides in this album may be played in any order, as no selection is carried over from one side to another. For those who enjoy this type of music I can give this album top rating as a masterpiece of recording science.

## E. H. SCOTT RADIO LABORATORIES, INC.

(ALSO SUCCESSORS TO McMURDO SILVER CORPORATION)

4450 RAVENSWOOD AVENUE

CHICAGO, ILLINOIS

630 Fifth Ave., New York • 41 Leonard St., Buffalo • 2648 West Grand Blvd., Detroit • 115 N. Robertson Boulevard, Los Angeles