

SCOTT



NEWS

NEWS OF LATEST DEVELOPMENTS IN THE SCOTT RESEARCH LABORATORIES

VOL. 11 NEW YORK DETROIT CHICAGO LOS ANGELES BUFFALO LONDON No. 6



"OPENED BY CENSOR"

HOW MUCH OF THE TRUE STORY ARE WE GETTING?

THE envelopes above which were received at the Laboratory during the last few days, tell a very graphic story, and indicate how strictly news, not only from Europe, but from other parts of the world at present far removed from the field of hostilities, is being closely watched and censored.

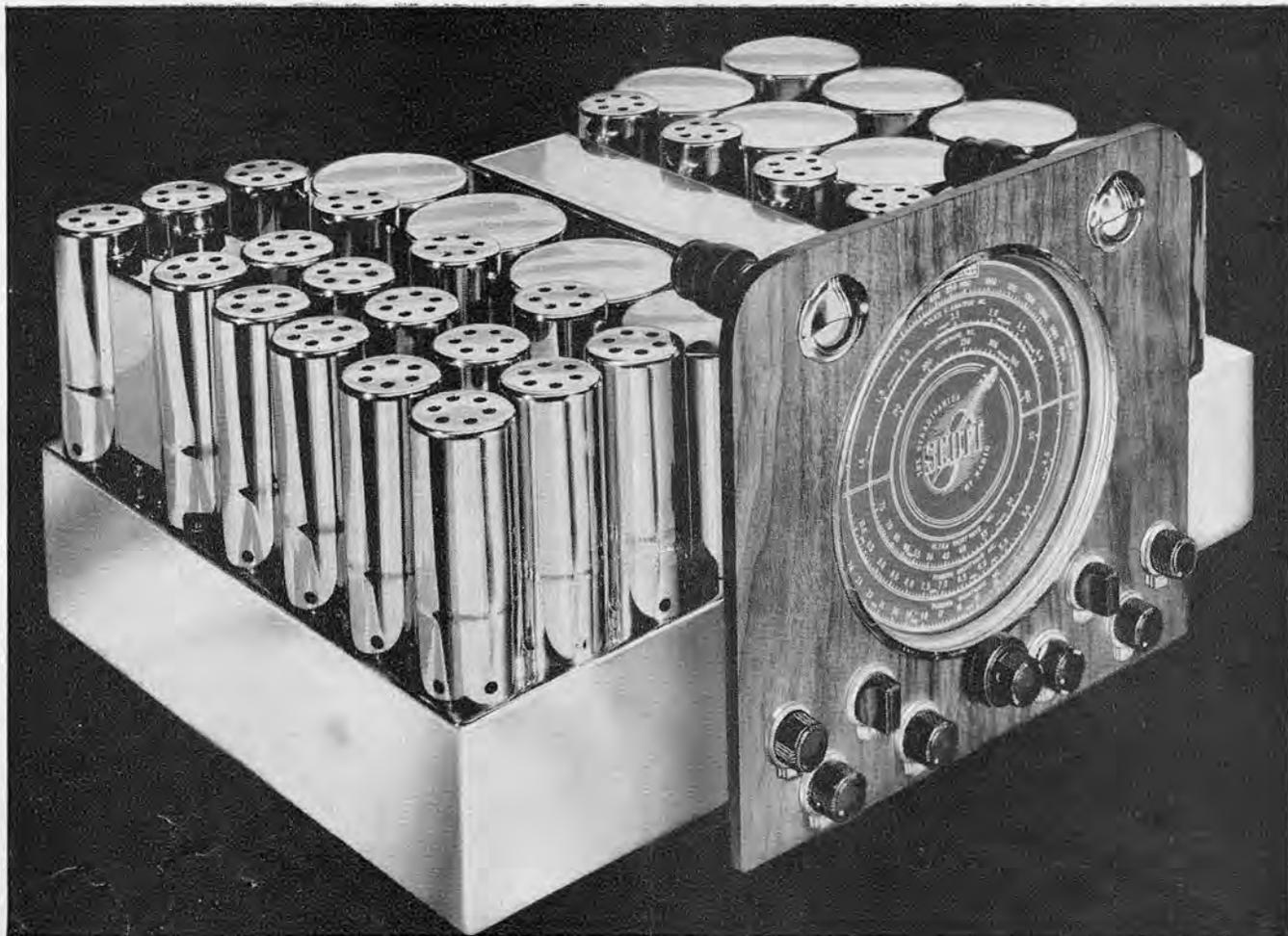
"Opened by Censor" will be a very common stamp on all letters received from the countries engaged in war. We recently heard reports of a German submarine off the coast of Newfoundland, and today a letter arrived from there with the stamp "Opened by Censor" on the envelope. Apparently native Newfoundlanders corresponding with their friends in other countries are not allowed to say anything about what is actually happening there. From the

British West Indies comes another letter bearing the stamp "Opened by Censor," indicating that some events occurring there must not be talked about. "Censura Militar" is the stamp on a letter just received from Madrid, indicating a military censorship is still functioning in Spain, and that life is still far from normal even though Spanish war is over.

Each of the four major countries now at war has a large number of super-powerful shortwave transmitters on the air practically 24 hours a day. England is transmitting daily programs on 16 different shortwave channels; Italy on 11 channels; France on 5 channels; Germany on 4 channels. Although we know that the "news" broadcast at regular intervals during the day from the transmitters of London, Berlin, Paris, Rome

and Moscow is highly seasoned with propaganda, these broadcasts at least enable us to hear all sides of the story.

With a SCOTT you can listen DIRECT to the stations of London, Berlin, Paris, Rome, and Moscow, not only when they are broadcasting by directional antenna for the exclusive benefit of listeners in North America, but, because of the SCOTT'S super-power, you will also be able to bring in many of the weaker European stations which are rarely heard on the ordinary radio receiver. SCOTT Receivers will play their part in the coming months by bringing to their owners in the United States and many foreign lands, all sides of the European conflict, not merely the favorable censored news that each nation now wishes the rest of the world to hear.



The 1940 Scott Philharmonic Tuning Chassis

1940 SCOTT PHILHARMONIC

**THE WORLD'S FINEST RADIO RECEIVER—WITH FINER TONE
—CLEARER REPRODUCTION—HIGHER FIDELITY—GREATER
UNDISTORTED VOLUME—GREATER LONG DISTANCE RANGE
—CUSTOMBUILT AND TESTED TO MORE PRECISE STANDARDS
THAN ANY OTHER RADIO RECEIVER IN THE WORLD TODAY.**

For many years a SCOTT has been the chosen reproducing instrument of noted artists the world over, among them Arturo Toscanini, John Barbirolli, Eugene Goossens, Jose Iturbi, Yehudi Menuhin, Lauritz Melchior, and many others. Like the name Stradivarius on a violin, the world's synonym for the FINEST in violins, the name SCOTT on a reproducing instrument has become, through the years, synonymous for the FINEST in radio.

The new 1940 SCOTT PHILHARMONIC is the precision instrument of radio, built in very limited numbers for those who desire the ultimate in a deluxe instrument. It is as definitely superior to the ordinary type of radio in tonal quality, undistorted power, quieter and clearer reception of programs from foreign stations in all parts of the world, in construction and quality, as a fine custombuilt automobile such as the Rolls Royce, the 16 cylinder Cadillac or the 12 cylinder Packard is superior to the standard type of automobile which has

been definitely designed to be built by the thousands in a high speed mass-production plant at the lowest possible cost per unit.

The 1940 SCOTT PHILHARMONIC incorporates the very latest developments in radio engineering plus exclusive developments of the Scott Research Laboratory on which patents have been recently issued, and is of such advanced design that we sincerely believe it represents the highest degree of perfection in radio receiver design ever attained.

When we say that the new 1940 SCOTT PHILHARMONIC is *the world's most highly developed receiving and reproducing instrument—one that will give finer tone and better reception*, not only from stations here in our own country, but also from far distant foreign lands, we sincerely believe we are simply making an actual statement of fact, and that a comparison of the laboratory curves of the Fidelity, Sensitivity, Selectivity, and Power Output with those of any other receiver will

quickly prove this statement beyond any question of doubt.

In the new 1940 SCOTT PHILHARMONIC will be found features that provide an even higher degree of Useable Sensitivity, a greater Continuously Variable Selectivity range, and a more highly developed Automatic Gain Control System, that enables it to bring into the home of its owner the intensely interesting news broadcasts now being transmitted from foreign stations in London, Berlin, Paris, Rome, Moscow and many other parts of the world, with a volume and clarity that will often make it difficult for you to believe these broadcasts are not coming from a local station. Today largely due to their ability to bring in far distant foreign stations regularly and with good volume, SCOTT RECEIVERS are in daily use in 153 different foreign countries.

However, the pure natural tone quality on the 1940 SCOTT PHILHARMONIC is undoubtedly its most outstanding feature, repro-

ducing the human voice more naturally, and with a higher degree of Fidelity, and more of the actual quality, timbre and living tone of musical instruments than has, to our best knowledge, ever before been attained in either radio or record reproduction.

The simple non-technical description which follows will show why we believe the new 1940 SCOTT PHILHARMONIC is not even remotely approached by any other radio receiver in the world, for either tonal perfection or reception range.

Tunes All Wavelengths From 5 to 2,000 Meters

The 1940 SCOTT PHILHARMONIC is designed to tune in not only programs on the regular Broadcast and foreign Shortwave bands, but also the programs on Longwaves up to 2,000 meters, and on the Ultra Shortwave Frequencies down to 5 meters, for it has a continuous tuning range (divided in 6 wavebands) from 60 megacycles (5 meters) up to 150 Kc. (2,000 meters) with no gaps excepting a narrow range on each side of the IF frequency.

All wavebands are accurately calibrated on a Laboratory Type edge-lighted glass dial 8" in diameter, with a precision Vernier logging scale which enables Shortwave stations to be accurately logged. For example, although the space on the main tuning dial for the frequencies between 15.10 megs, and 15.20 megs. covers only one-eighth of an inch, the eight foreign stations on the small space (2RO, Rome, on 15.10, DJL, Berlin, on 15.11, SP19, Warsaw, on 15.12, TPB6, Paris, on 15.13, GSF, England, on 15.14, JZK, Tokio, on 15.16, RV96, Moscow, on 15.21, and DJB, Berlin, on 15.20) can be logged so precisely on the Vernier logging scale that any one of these stations can be located in a second once they have been previously tuned in and recorded.

30 Latest Type Tubes

The 1940 SCOTT PHILHARMONIC uses 30 of the latest type tubes. Many people believe that any radio having more than eight or ten tubes is designed primarily as a super-distance receiver, but nothing could be farther from the actual truth. An analysis of the functions of the 30 tubes used will clearly show that even if ONE of these tubes is eliminated, the reception now accomplished would be impossible.

Two Stages of R.F. Amplification

On account of the fact that there are such a large number of stations on the air today, extreme Selectivity is necessary so that you will hear only one station at a time. The 1940 SCOTT PHILHARMONIC incorporates a new R.F. development of the Scott Research Laboratories—a two stage R.F. amplifier which is very sharp when extreme Selectivity is desired to bring in weak distant stations on the Broadcast band or channels adjacent to powerful locals, but which is automatically band passed to 18 Kc. when High Fidelity reception is desired, providing maximum Selectivity, greater Sensitivity, and higher Fidelity with a minimum amount of noise.

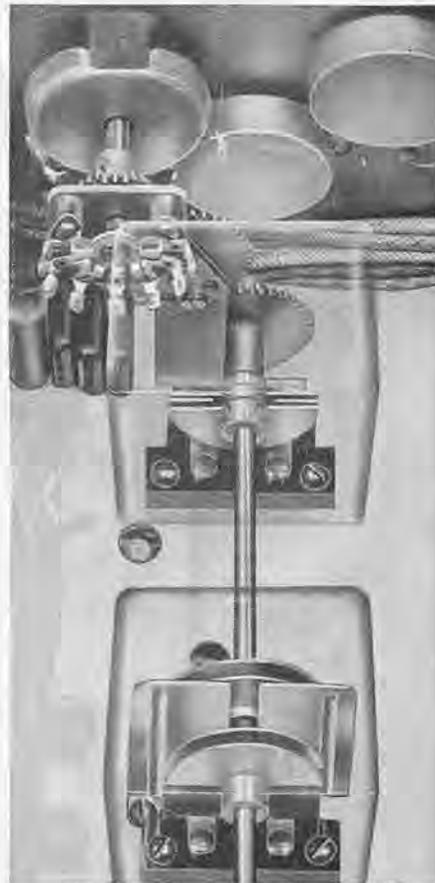
The two tuned R.F. stages used on each of the four S.W. wavebands, using two 6U7G tubes, in addition to increasing Selectivity, also increases very considerably the receiver's distance-getting ability, and may roughly be compared to a Supercharger in an automobile which forces the gasoline mixture into the engine under pressure to greatly increase the power of the engine. In the same way, the extra stage of R.F. amplification builds up the strength of a weak distant signal before it enters the I.F. amplifier or the "engine" of the radio receiver. This enables you to tune in many distant stations which would be inaudible on the ordinary type of radio.

The first tuned circuit in the R.F. amplifier resonates and amplifies the desired signal before it reaches the first R.F. tube; while the 2nd and 3rd tuned circuits operate in the plate circuits of the 6U7G tubes instead of the grid circuits to provide maximum R.F. gain on all Shortwave bands.

All R.F. coils are wound on special low-loss forms, and by using especially large coils and shields, eddy current losses are practically eliminated, resulting in a total gain in circuit efficiency of approximately 3 to 1 over receivers using the usual size coils and shields.

Special Electron Coupled Oscillator Circuit Prevents Frequency Drift

In some radio receivers, the function of the Oscillator is combined with the Detector, thus



Section of Selectivity Control Mechanism

saving the cost of one tube in the set. However, when this is done it is difficult to make the receiver maintain accurate calibration. In addition, if a separate Oscillator tube is not used, signals often have a tendency to "drift" or "creep" on Shortwave stations, making it necessary to frequently adjust the dial to retune the station.

A special electron coupled Oscillator circuit (a development of the Scott Research Laboratories) using the new 6J5G Oscillator tube, is incorporated in the 1940 SCOTT PHILHARMONIC. To eliminate Oscillator shift due to any change in line voltage or signal strength variation, an auxiliary stabilizing circuit using a new type of voltage rectifier tube is used which maintains the plate voltage on the Oscillator absolutely constant at all times. In addition, this stabilizing circuit also reduces distortion or "twisting" of shortwave signals so commonly noticed on the ordinary radio receiver during conditions of rapid fading. The use of a separate Oscillator tube in addition to the Voltage Regulator provides the greatest degree of stabilization it is possible

to attain at the present stage of radio science.

Complete thermal isolation from heat generated in the voltage dividers, and the use of micrometer adjustment air condenser trimmers and padders further assures still more precise dial calibration and circuit alignment on all tuning ranges.

The Converter Circuit

A specially developed Converter circuit is incorporated using a 6L7G tube, which covers the very wide range of frequencies of the 1940 SCOTT PHILHARMONIC with peak efficiency.

Highly Developed Four Stage I.F. Amplifier

In the 1940 SCOTT PHILHARMONIC four stages of I.F. amplification are incorporated, using three 6K7G tubes in the first three stages. In the fourth I.F. stage a 6B8G dual purpose tube is used which furnishes ample driving power for the Audio Frequency Diode, handles the high modulation peaks, and assures perfect rectification without distortion.

The vast majority of radio receivers have only one I.F. stage, while the higher priced models have two, and in some cases three. However, the owner of a receiver such as the 1940 SCOTT PHILHARMONIC is, we believe, interested in only one thing—the finest possible reception at all times. By reducing the number of I.F. stages you decrease the Selectivity in proportion, and there are innumerable times when the extra I.F. stages used in the 1940 SCOTT PHILHARMONIC will make all the difference between receiving a distant station clearly and quietly, and not receiving it at all, or with considerable interference.

To prevent the usual loss in efficiency due to eddy current losses where small shield cans are used, each of the four I.F. stages are mounted on shield cans 3 1/2" in diameter. Both primary and secondary coils in each I.F. transformer are wound with Litzendraht wire in four sections, and tuned by air condensers mounted on Staetite insulators. An electrostatic shield is provided between the primary and secondary of each transformer to eliminate capacity coupling between the circuit assuring pure magnetic coupling. Each I.F. stage is so thoroughly shielded, carefully filtered, and effectively by-passed, that every trace of inter-stage coupling and instability is eliminated, making it possible to utilize fully the high gain in the I.F. amplifying system.

The very advanced design of the four stage I.F. amplifier, with its perfect stability and high gain, provides a higher degree of Useable Sensitivity than has, we believe, up to this time ever been incorporated in a superheterodyne receiver. Together with the new highly efficient two stage R.F. system it makes possible the reception of signals from many distant foreign stations which would be entirely inaudible on the ordinary radio receiver.

Selectivity Continuously Variable From 2 to 16 KC.

To bring in weak distant stations on channels adjacent to powerful local stations, a high degree of Selectivity is necessary. An outstanding feature of the 1940 SCOTT PHILHARMONIC is the Continuously Variable band-pass I.F. Selectivity with a range from 2 to 16 Kc. which, combined with our exclusive system of controlling the Selectivity in the R.F. stages, provides an unusually wide range of Selectivity and Fidelity. As the I.F. Selectivity is continuously variable, it can be set to give the maximum degree of Fidelity possible for any station tuned in, with interference eliminated from stations on nearby channels.

Another unusual feature in connection with this variable I.F. Selectivity system is the

special means used to secure maximum Sensitivity when the receiver is in the *most Selective position*, which makes it an ideal receiver at this time when the daily English news broadcasts from London, Berlin, Paris, Rome and Moscow are of such vital interest to all who wish to have an unbiased picture of what is happening in the world today.

Two Separate AVC Systems Used To Control Fading Signals

The satisfactory reception of distant Short-wave stations depends to a great extent on the perfection of the Automatic Volume Control system. This is a circuit within the receiver which, when a signal begins to fade out, actually *increases* the volume. Then, when the signal strength "fades in" again, the Automatic Volume Control automatically *decreases* the volume. In this way, a comparatively even volume level is maintained on distant stations as the AVC system acts on the signal coming into a radio receiver in much the same way a governor acts on an engine.

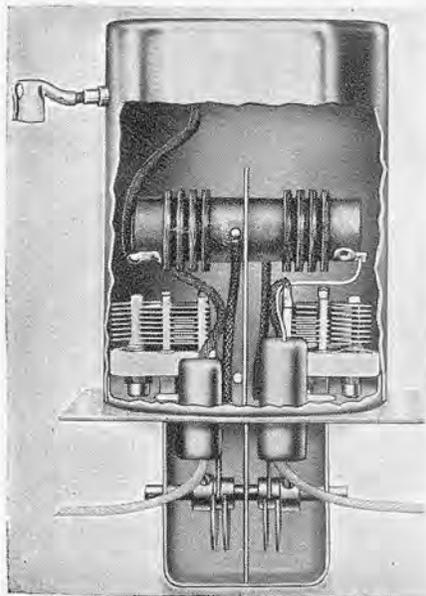
Instead of the usual single AVC used in most production type receivers, *two separate and very highly developed Automatic Volume Control systems are used*. The first system incorporates a 6B8G tube which controls the gain of the R.F. amplifier. The second system also uses a 6B8G tube and controls the gain on the I.F. amplifier. The R.F. Automatic Volume Control system, fully delayed to provide maximum gain on the I.F. amplifier, prevents (1) interference from signals of strong stations on channels adjacent to weak distant stations, (2) overloading the R.F. converter tubes, and (3) noise and distortion when tuned to a powerful local station, or to a distant station on a channel adjacent to a local.

High Useable Sensitivity Brings in Distant Foreign Stations Clearly

Another outstanding feature of the new 1940 SCOTT PHILHARMONIC is the high degree

of *Useable Sensitivity* available on the Short-wave bands where a high degree of Sensitivity is so necessary to bring in programs from distant foreign stations clearly and with good volume. A separate Sensitivity control is provided which is Continuously Variable so that the sensitivity of the receiver can be set at the exact point where it will give the quietest possible reception in all classes of receiving locations. *It is so highly developed that it does not affect or impair the AVC action at any degree of Sensitivity.*

The extremely high degree of *Useable Sensitivity* incorporated in the 1940 SCOTT PHIL-



I.F. Transformer Showing Four P1. Litzen-draht Coils, Air Tuning Condensers and Part of Selectivity Control.

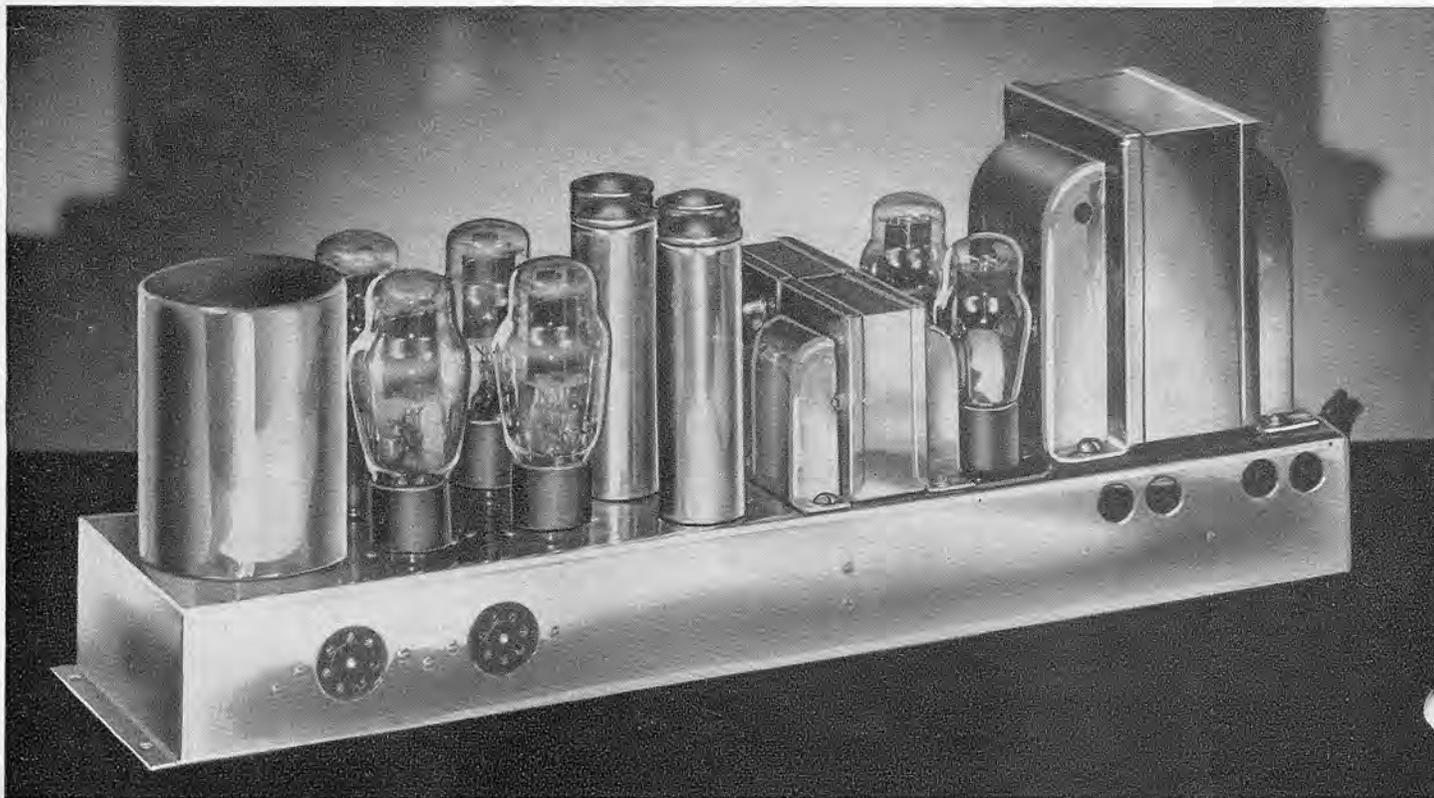
HARMONIC is just one of the reasons why it will undoubtedly, during the coming year, establish many new records in the reception of weak, low-powered foreign stations, thousands of miles distant.

Silent Tuning Between Stations

As was just pointed out, in order to bring in distant stations from all parts of the world, a receiver must have a high degree of Useable Sensitivity. If it is to hold these signals at a constant volume level it must have an extremely efficient AVC system. However, a highly sensitive receiver, with a very efficient AVC system, means that when tuning between stations and no signal is coming through, the AVC system will open up the full Sensitivity of the receiver, and unless your location is an extremely quiet one free from all forms of electrical interference, considerable noise will be heard. In the 1940 SCOTT PHILHARMONIC the Sensitivity can be quickly set to the position where noise caused by electrical interference picked up on the flat top of the antenna is practically eliminated, enabling you to tune in stations from one end of the dial to the other without noise. This feature means that the 1940 SCOTT PHILHARMONIC can always be operated at any particular location to give the smoothest and quietest reception.

Special Noise Reducing Circuits Practically Eliminate Electrical Interference Picked Up On Antenna Lead-in

In addition to the noise reduction obtained by control of the Sensitivity, a patented noise-reducing Supershield Antenna Coupling System developed in the Scott Research Laboratories, practically eliminates electrical interference or noise picked up on the antenna lead-in, and *at the same time effectively DOUBLES the Sensitivity or distance-getting ability of the receiver and antenna combination* by eliminating loss and providing a highly



The Separate Power Amplifier Chassis Used with 1940 Scott Philharmonic

efficient transfer of the signal picked up on the flat top of the antenna to the grid of the first R.F. tube. By means of this new Scott development, satisfactory reception is now possible from many distant stations in locations where shortwave reception up to this time has been unsatisfactory or impossible owing to the amount of noise and interference picked up on the antenna lead-in.

High Fidelity Reproduction Wins Enthusiastic Endorsement of Leaders in Musical World

The 1940 SCOTT PHILHARMONIC is designed to reproduce a wider range of frequencies than any other receiver available today, and is the principle reason for the enthusiastic endorsement of leaders in the musical world. Acoustical engineers have proved by scientific tests that the audible range of the human ear is from 30 to 16,000 cycles or vibrations per second. At the present time, there are a comparatively small number of broadcasting stations transmitting frequencies in this range, but the SCOTT PHILHARMONIC is designed not merely for today's requirements but for those of the future as well. At the present time stations on the broadcast band are required by the Federal Radio Commission to limit their transmitting frequency to cut off sharply at 8,500 cycles in order to prevent interference from stations on adjacent channels. However, if perfect reception is to be obtained from these stations, the frequency response of your receiver must be flat to 8,500 cycles, otherwise many of the higher frequencies or overtones will not be heard. As it is the reproduction of these higher overtones and harmonics which give music and voice their timbre or individuality, it will be seen how necessary it is that all frequencies actually being transmitted are reproduced.

In the 1940 SCOTT PHILHARMONIC, as the Selectivity is continuously variable, it is possible to broaden out the receiver so that it will pass every frequency being transmitted, and a listening test over a comparatively short time is all that is required to quickly prove beyond all question its outstanding superiority and immeasurably finer tone.

Variable Bass Control

All broadcasting stations do not transmit the same high degree of Fidelity. Therefore, in order to provide perfect reproduction, it is

necessary to vary the lower frequencies so that the bass notes may be made weaker or stronger. This is accomplished in the 1940 SCOTT PHILHARMONIC by means of a new Bass Bi-Resonator system, another development of the Scott Research Laboratories. This system provides perfect reproduction of the Bass frequencies *without in any way affecting or muffling the speaking or singing voices, or any of the higher frequencies.*

Many receivers have what appears to be good bass response, but it is generally accompanied by a considerable amount of AC hum. In the new Scott Bass Bi-Resonator system, perfect Bass reproduction has been secured but the hum has been eliminated. An examination of the Fidelity curves shows the extremely sharp dip at 60 cycles which eliminates the 60 cycle hum frequently fed in from remote pick-ups of broadcast stations. It will also be noted that our Bass Control System provides practically no boost at frequencies of 200 cycles or higher, again minimizing the 120 cycle frequency hum frequently heard on ordinary receivers. A listening test of the new 1940 SCOTT PHILHARMONIC will quickly prove the tremendous improvement in Bass reproduction this new system provides.

Variable Treble Control

One of the great differences between the ordinary receiver and a highly developed instrument such as the 1940 SCOTT PHILHARMONIC lies in its remarkable reproduction of the higher frequencies or overtones, for it is these that add life and vividness to reproduction. If the higher overtones are missing, reproduction sounds flat, dull, and lifeless.

In the 1940 SCOTT PHILHARMONIC a Variable Treble Control enables you to accentuate the higher frequencies if they are not coming through from the transmitting station with the proper balance, or to reduce them if they are not pleasing to your ear. The 1940 SCOTT PHILHARMONIC with its Variable Bass and Variable Treble Controls provides an instrument that will be treasured for many years by those who enjoy fine music.

Increased Handling Capacity

Increased reserve power is incorporated in the 1940 SCOTT PHILHARMONIC to prevent fuzziness and distortion on comparatively loud passages when the receiver is played at low or normal volume.

To secure this fine reproduction, four stages of pure class "A" audio frequency amplification are used. The first audio stage uses the new type 6J5G tube, the second audio stage (which operates as a distortionless phase inverter) also uses a 5J5G tube. The third audio stage uses a 6J5G tube as a push pull driver, while the fourth stage uses four 6L6G beam power output tubes with the newly developed inverse feed back system to minimize amplitude and frequency distortion.

Four 6L6G tubes used in parallel pushpull in the power output stage, together with a specially designed driver stage, allow 75% of the gain of the 6L6G tubes to be used for distortion cancellation in the tubes themselves. This means that the last traces of distortion are cut by a factor of 4 to 1, resulting in an output of 40 watts pure Class "A".

One stage of audio amplification could easily have been eliminated if the 6L6G power tubes had been used in the usual manner, but the increased harmonic distortion would have resulted in inferior reproduction and poor tone quality. The 1940 SCOTT PHILHARMONIC has been designed primarily for those who desire the finest and most perfect deluxe radio receiving and record reproducing instrument that radio science can produce.

If your receiver is of the usual type, we suggest you make a test with it on any symphonic broadcast. Turn the volume to a normal listening volume—not too high, and not too low. You will note the softer passages come through quite well. Now listen attentively to the louder passages, and you will undoubtedly notice that all of the tones are not coming through the speaker. The fortissimo, or loud passages, will sound choked or muffled, and without the thrilling effect they give you when you hear them in the concert hall. This effect is nothing more or less than distortion, an unavoidable result if a receiver has less handling capacity (power output) than the transmission it is trying to reproduce.

Special 15" High Fidelity Speaker

An examination of the acoustical curve of even the best loud speaker will show many "peaks" and "dips" in response at various frequencies. This means that the tones coming in at the "peaks" of the speaker are accentuated or made louder than they should be, while the tones coming in at the "dips" are not heard at sufficient volume, with the result that reproduction is impaired in proportion to these variations in the "peaks" and "dips" of the speaker.

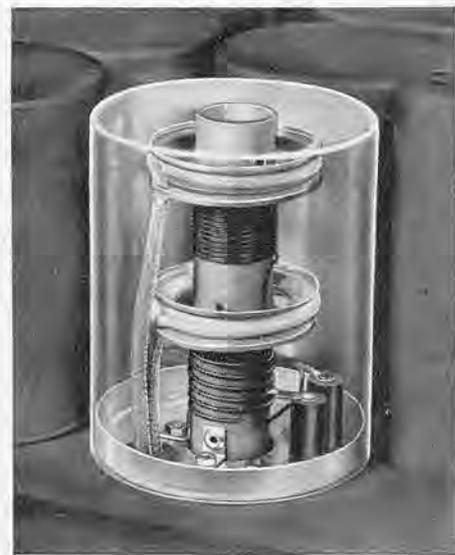
The Inverse Feed-Back system incorporated in the 1940 SCOTT PHILHARMONIC amplifier is designed to compensate for these defects, as it automatically cuts down the "peaks" and brings up the "dips" giving finer and more natural reproduction, broadening out the acoustical response of the speaker by a factor of approximately 2 to 1.

In addition to improving the acoustical response of speaker, it also extends the frequency range both at the low and high frequency end, and the objectionable "hang-over" so often noticeable in loud bass reproduction caused by the speaker cone vibrating after the note or sound has actually ceased, is eliminated.

The SCOTT PHILHARMONIC speaker has been especially designed for High Fidelity reproduction and heavy duty performance. It incorporates the very latest developments in loud speaker design, a 15" curvilinear diaphragm, and a heavy 2" "voice coil." Its frequency response covers perfectly the frequency range of all stations on the Broadcast band. Two special High Frequency speakers, which have been developed to reproduce the



Sectional View Showing Special Electron Coupled Oscillator Unit.



Sectional View of the Scott Supershield Antenna Coupling Unit.

higher frequencies or overtones up to 16,000 cycles, can be supplied at \$14.95 the pair for reproduction of the full frequency range up to 16,000 cycles.

Perfected Volume Range Expansion System

Every program you hear over the air does not come to you exactly as it enters the studio microphone. In every studio a monitoring engineer sits in his glass enclosure with the musical score directly before him during each broadcast, and when this score calls for a crashing fortissimo, the monitoring engineer turns a control which immediately reduces the strength of the passage. When the score calls for a very soft passage, he turns his control up, so that it will be transmitted with more volume.

Therefore, in any radio receiver without Volume Range Expansion, you never hear a broadcast *exactly* as the composer writes the score, or as the conductor renders it, but as it is interpreted by a monitoring engineer who is not always an acceptable music critic.

The 1940 SCOTT PHILHARMONIC incorporates what we believe to be one of the greatest advances made in the reproduction of orchestral music—the Scott Double Channel Volume Range Expander, a development of our own Research Laboratories, and found in no other reproducing instrument. When you switch on this expansion control, the music coming from the receiver immediately changes to practically its *original dynamic proportions*, thereby restoring an emotional effect and vigorous vitality which is usually missing in radio broadcasts and record reproduction.

"From the softest sound of an orchestra or speaking ensemble to the utmost sonorities of a great tutti," says Leopold Stokowski, "there is and should be a very wide range of difference. There are physical, psychological, and musical reasons for this. Much of the emotional effect of music in its dynamic intensity of mood and expression depends on gradual and quick increase of loudness (crescendoes) and gradual or quick reduction of loudness (diminuendo). Also sudden accents on one or more notes or on a melodic outline, either on the top edge or the lower edge, or somewhere in the middle of the total mass of sound, add at certain moments to the poignancy of the music. Another factor in increasing the eloquence of some kinds of musical expression is the powerful contrast of the great mass of loud harmony followed or preceded by delicate distant-sounding music. *One of the greatest values of music—its power to invoke in us moods and states of feeling and of being—those depend greatly upon dynamic contrast and gradation.*"

It is unnecessary to point out that the ordinary radio does not reproduce these thrilling effects described by Dr. Stokowski that you enjoy when present at an orchestral performance. This is because the broadcast studio's monitoring engineer controls the amount of volume which is broadcast, so that it will not exceed or fall below a certain level of intensity. These loud passages are *reduced* in volume and soft passages are *increased* in volume. In recordings too, there is control of dynamics by the recording engineer to avoid overcutting the record grooves. This "leveling out" process of course removes most of the expression given to the composition by the conductor or artist, and the result is that we do not hear the music as the composer originally conceived it. The original sharp contrasts in volume are so equalized and smoothed out that the reproduction you hear often becomes a comparatively flat and unimpressive monotone. The beautiful instrumental coloring, the contrasting effects of light and shade, the impression of sparkle and brilliance have

been taken out of the music. You hear only the melody of the composition which, of course, is only a detail of many orchestral, instrumental, and vocal works.

The Volume Range Expander incorporated in the 1940 SCOTT PHILHARMONIC *automatically reverses* the "leveling out" process, and restores the dynamic volume range of the music, with every bit of emphasis, accentuation, and expression as originally played. Soft and loud passages are reproduced in their original proportions *to each other*, regardless of the degree of volume to which you have set your instrument. A variable control to regulate the expansion is provided on the instrument panel of the 1940 SCOTT PHILHARMONIC, so that any degree of expansion, from zero to the full dynamic range, can be secured on either radio or record reproduction. The Scott Double Channel Program Volume Range Expander System uses a total of five tubes, one 6J5G tube, one 6H6G tube, one 6G5 tube, and two 6L7G tubes in push pull.

Tuning and Program Volume Range Expander Indicators

The program that is not tuned in exactly "on the head" will be distorted and usually



The Special High Fidelity Heavy Duty 15" Speaker.

sounds raspy, as if the low tones were missing. An accurate tuning indicator which will show when a program is tuned in *exactly* is a necessity on every fine receiver. In the 1940 SCOTT PHILHARMONIC a Cathode Tuning Ray 6G5 tube is used for this purpose. In addition to functioning as a tuning indicator it is also valuable in locating comparatively weak stations which you might easily pass over when tuning by ear alone, and also in locating Shortwave stations which "stand by" for a considerable length of time without broadcasting, for the fluctuations on the tuning indicator indicate instantly if there is a station operating.

Some programs are not "monitored" as severely as others, and therefore do not require so much Volume Range Expansion. A 6G5 Cathode Ray tube is therefore used as an indicator to show the degree of expansion on the program, making it an easy matter to set the Volume Range Expander at the proper point.

Television Sound Connection

The Ultra High Frequency band enables the owner of a 1940 SCOTT PHILHARMONIC to tune in Television sound broadcasts direct. In addition, connections have been provided to attach a separate Television

Video through which you will see the picture on the small compact unit, while the program itself will be heard through the speaker of the 1940 SCOTT PHILHARMONIC.

High Fidelity Record Reproduction

Connections are provided for attaching a pick-up to the 1940 SCOTT PHILHARMONIC, and a switch on the front panel allows the receiver to be instantly adjusted, either for reception of programs off the air, or record reproduction. All tone adjustments are available on record reproduction as well as programs received off the air. This means that if the record is lacking in either bass tones, or the higher overtones, these frequencies can be adjusted until the reproduction is exactly as you desire to hear it.

Record Surface Noise Suppressed

The presence of "needle scratch" when listening to records has always been one of the great objections to record reproduction, and various methods have been tried to eliminate or reduce it. One very common method is to use a pick-up having a response which is limited to the reproduction of frequencies not exceeding 4,000 cycles. If a high quality pick-up is used, the higher frequencies or overtones are reproduced, *but the record scratch is increased.*

A development of the Scott Research Laboratories has at last made possible the full enjoyment of record reproduction, for it automatically eliminates the scratch on the record at the lower volume levels where it is so objectionable.

The result of this very outstanding development in record reproduction is that music or voice can now be heard with all of the life and vividness of the original, and a degree of pleasure that simply cannot be realized until one has listened to an actual demonstration of this very remarkable development.

Parts Used

Air condensers are used throughout in all tuned circuits. A special low loss, wide spaced, four gang Tuning Condenser is used in two separate units to isolate high frequency currents and provide stable gain at high frequencies. All high frequency circuits are insulated either with high frequency low loss Steatite, or special low loss high frequency bakelite, including Wave Change Switch and High Frequency tube sockets.

All High Frequency circuits are thoroughly isolated, independently shielded, by-passed and filtered—Special low loss, eight layer celanese braid insulation is used on all shielded leads in high frequency circuits—Metalized, hermetically sealed, molded bakelite resistors are used throughout—Plate voltage and bias dividers are designed to dissipate heat externally to still further reduce possibility of frequency drift through excessive heat changing characteristics of tuning coils and condensers—Heavy copper tinned braid used for all high frequency ground circuits—Extremely heavy duty 16½ pound power transformer—Heavy duty chokes used in special circuit which prevents laminations buzzing and causing hum—Chassis and amplifier base 14 gauge steel, heavily chromium plated.

Five Year Guarantee

Every part of the 1940 SCOTT PHILHARMONIC receiver is fully guaranteed (except tubes) for FIVE YEARS (instead of the usual 90 days given with ordinary receivers) against defects in either material or workmanship, and will be replaced free of charge, when returned to the Laboratories, provided chassis seals are not broken or receiver tampered with.

WHAT A SCOTT RECEIVER MEANT TO AN OWNER IN SPAIN DURING THE SPANISH WAR

FEW of us living in the United States realize how fortunate we are compared with those living in Europe and other foreign countries today. Nothing could prove this more conclusively than a letter that was received two weeks ago from one of our owners in Spain. It reads as follows:

Valencia (Spain), Aug. 18, 1939

Dear Mr. Scott:

With peace re-established in our cherished Spain, sublime work of the Spanish arms directed by the genius of our leader Franco, I want to fulfill a desire which during the last war, right in the Bolshevich zone where I had the misfortune to be, I promised myself to realize. That is to explain to you the thanks which I owe to your radio, since I suffered three years of martyrdom and persecution, without direct contact with the real, civilized world. Only thru the radio did we receive the consolation of news of the victorious feats both from the war fronts and from international sources.

Since 1934, before the war I owned, and I still have now, an apparatus of your make which your firm puts on the market under your wise management. As yet it has undergone neither damage nor change of tubes, which information I want to serve as eulogy of you, for with the clandestine and constant operation of the set during the marxist period, I have been able to keep in steady contact with the whole world without interruption and with the same clearness as on the first day.

I wanted to give you this information and congratulate you for this fact.

Yours very truly,

José Marquina
Calle Comedias, 25
Valencia (España)

Today there are undoubtedly many of the Scott receivers which were sold in Germany, Czechoslovakia, and some of the other Balkan states before war broke out, which are, at this time, bringing to their owners some authentic news of what is happening in their own as well as the outside world. But what a tremendous risk these owners are running in order to listen to transmissions that here in this country we can sit down and tune in on our receivers without fear of being thrown into a concentration camp, or worse.

Immediately war was declared, the German people were given orders *not to listen to foreign broadcasting stations under penalty of being thrown into a concentration camp.* In all of the countries now at war, and in several of those that are still not as yet engaged in war, severe restrictions have already been imposed, both on the reception of foreign programs, and in the censorship imposed on those that are being transmitted. Undoubtedly, in the United States we are getting a more unbiased picture of events in Europe at this time than the people of any other nation, but we should remember that all news now coming thru is heavily censored, and undoubtedly any that is unfavorable is not allowed to pass.

While the programs from Europe are literally loaded with propaganda, still it is possible, by listening to the daily news broadcasts in English from each country, to obtain a much truer picture of what is happening, than it is from merely reading the daily newspapers. From 6:00 in the morning until midnight, programs are being transmitted from the Euro-

pean stations on special directional antennae specially for listeners in North and South America.

Up until the time war broke out, I received monthly programs from London, Berlin, Paris, and Rome, listing them a month in advance, but the outbreak of the war has apparently disorganized this service, for no advance programs for October have so far been received from Berlin, Paris or Rome. However, this morning I received the emergency transmission schedule from the British Broadcasting Corporation, giving their present program schedule as follows:

English News Broadcasts

Station GSJ—21.53 Megs. (13.93 Meters)

Station GSG—17.79 Megs. (16.68 Meters)

6:00 to Noon EST

EST

6:30 AM—English News Bulletin
7:30 AM—German News Bulletin
7:45 AM—Italian News Bulletin
8:00 AM—Portuguese News Bulletin
8:15 AM—English News Bulletin
9:00 AM—Spanish News Bulletin
10:00 AM—English News Bulletin
11:00 AM—English News Bulletin
12:00 N —Close down.

Station GSG—17.79 Megs. (16.68 Meters)

12:30 AM to 3:25 PM

12:30 PM—English News Bulletin
2:00 PM—English News Bulletin
2:15 PM—French News Bulletin
2:30 PM—German News Bulletin
3:00 PM—English News Bulletin
3:25 PM—Close down.

Station GSP—15.31 Megs. (19.60 Meters)

Station GSD—11.75 Megs. (25.53 Meters)

3:45 PM to 6:00 PM EST

EST

3:50 PM—News in English
4:00 PM—News in French
4 15 PM—News in German
4:45 PM—News in English
5:15 PM—News in Spanish
5:30 PM—News in Portuguese
6:00 PM—Close down.

Station GSD—11.75 Megs. (25.53 Meters)

Station GSB—9.51 Megs. (31.55 Meters)

6:22 PM to 9:15 PM EST and from
9:37 PM to 12:30 AM EST

EST

6:30 PM—News in English
6:45 PM—News in French
7:00 PM—News in Portuguese
7:30 PM—News in English
8:00 PM—News in Spanish
8:45 PM—News in English
9:00 PM—News in Spanish
9:15 PM—Close down.
9:45 PM—News in English
11:00 PM—News in English
12:15 PM—News in English
12:30 AM—Close down.

German Broadcasts

The German shortwave transmitters are on the air practically all day long, although up to the time war broke out, the regular programs transmitted for reception in North America started at 4:50 PM EST, and closed down at 10:45 PM. The German broadcasts

employ a slightly different technique to the English broadcasts. You will hear a record perhaps of a symphony, dance tune, or a chorus, then a very short announcement, that may contain a quotation from Adolph Hitler's book "Mein Kampf," or perhaps a quotation from a speech made by some English statesman five or six years ago. In addition to these, of course, there are, at regular intervals, news broadcasts giving the German version of events.

Germany uses four transmitters as follows: DJL, 15.11 Megs. (19.85 Meters); DJB, 15.2 Megs. (19.74 Meters); DJD, 11.77 Megs. (25.49 Meters) and DJZ, 11.80 Megs. (25.42 Meters). You will find that from 5:00 PM EST to 11:00 PM EST, you will be able to tune in the German stations on one of these wavelengths.

The French News Broadcasts

The French are employing most of the time two transmitters, one on 11.71 megs., and the other on 11.88 megs. They are now transmitting quite regular news broadcasts in English, especially during the evening hours between 7:00 PM and 10:00 PM EST. The English news broadcasts from Paris are often quite interesting.

Italian Programs

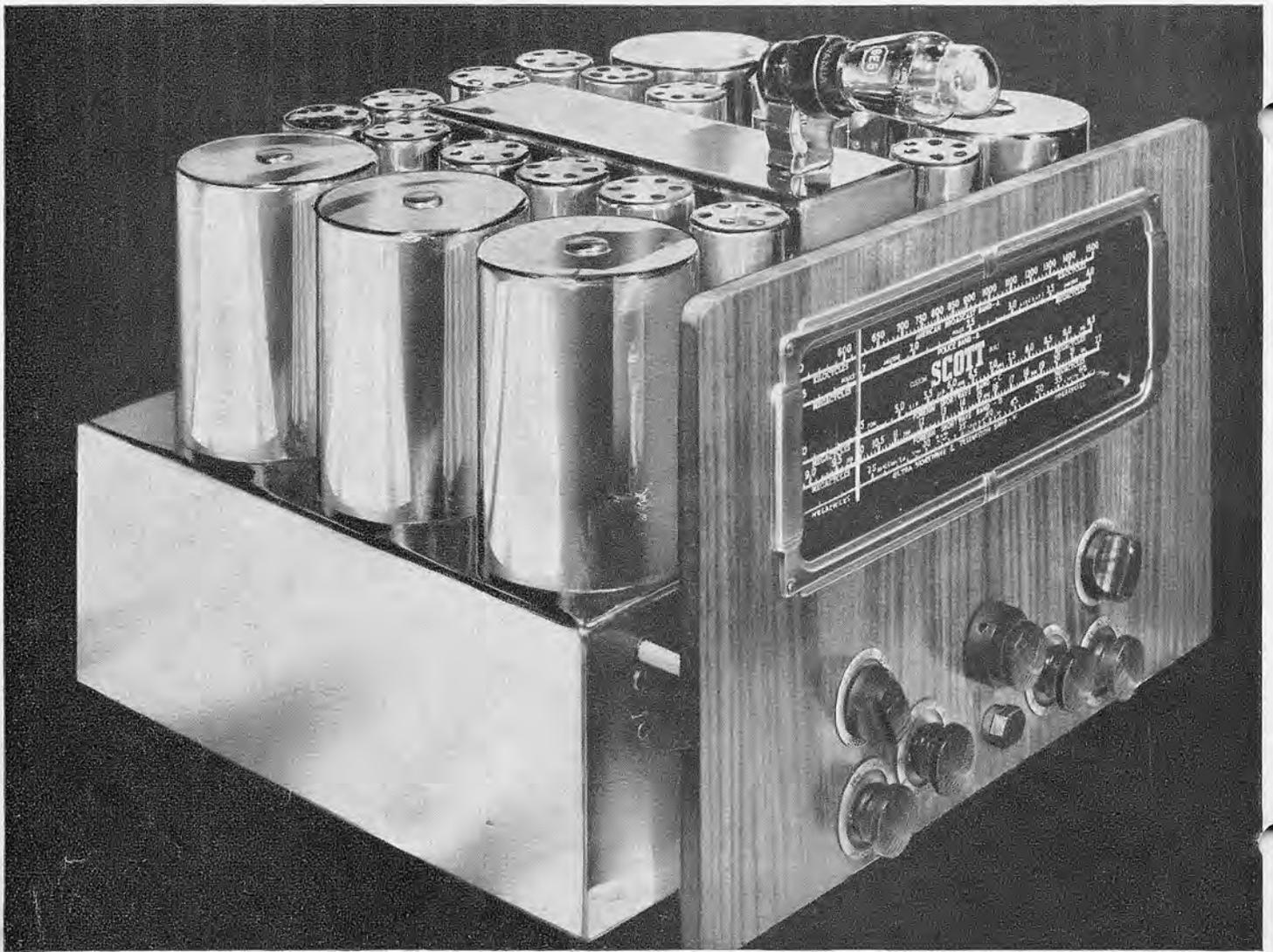
At the present time Italy is probably putting on more regular programs than any of the European stations, and their transmissions come over very well. They are continuing with their regular daily American Hour and use three transmitters: 2ROC—9.63 Megs.; 2RO4—11.81 Megs. and 2RO8—17.82 Megs. The regular American Hour comes over between 8:30 PM EST and 10:00 PM EST. In addition to news in English, the Italian stations transmit some very fine musical programs.

Russian Broadcasts

Moscow apparently has some very powerful transmitters, and is now broadcasting a program nightly which I have heard best on 15.18 Megs. When you pick up Moscow, you will have no trouble in identifying it after listening for 5 or 10 minutes, for the program is announced in very excellent English by a man and woman, with a decidedly London accent.

Foreign Program Schedule for Scott Owners

Within the next few days I will have off the press a new and up-to-date shortwave log listing the shortwave stations of the world with the latest transmitting time schedules available for each station. In addition, there is a World-Wide Time Chart included which enables anyone to convert Greenwich Meridian time into their local U.S.A. time. A postcard from any Scott owner will bring this schedule to them free. Those who do not own Scott receivers, but who would like to have a copy of this time chart, may secure one by remitting 25c in either stamps or coin direct to the Laboratories.



Tuning Chassis of the New Scott Phantom Deluxe

NEW SCOTT PHANTOM DELUXE

**GUARANTEED TO OUTPERFORM ANY OTHER MAKE OF RADIO
IN EITHER A SIDE BY SIDE TONAL OR LONG DISTANCE TEST**

THE new 20 tube SCOTT PHANTOM-DELUXE is a custombuilt receiver incorporating such advanced design that it is sold with the distinct understanding you are to have 30 days' trial after it arrives in your home to prove, by an actual performance test, its superiority to any other radio receiver (excepting only the new 1940 SCOTT PHILHARMONIC) selling at any price, and with any number of tubes. If it does not, in any kind of side by side comparison you care to make, have finer tone on all stations—bring in distant foreign programs with greater clarity and volume—prove to be a finer and better instrument in every way—you have the privilege of returning it any time within 30 days, and the purchase price will be refunded. *In this test you alone are to be the sole judge!*

For those who do not desire the extended wavelength range, the program volume range expander, greater power output, and the wider fidelity range incorporated in the 1940 SCOTT PHILHARMONIC, the SCOTT PHANTOM-DELUXE is the ideal receiver. We know of

no other make of receiver today that can even approach its tonal perfection, the volume and clarity with which it brings in distant foreign stations, its range of selectivity that enables it to separate stations on adjacent channels, or its remarkable freedom from man-made static or electrical interference.

Following is a brief summary of some of the features incorporated in the new SCOTT PHANTOM-DELUXE: • Twenty latest type octal base tubes. • Overall Fidelity practically flat from 30 to 8,500 cycles—approximately twice the tonal response of an ordinary radio receiver. • Wavelength Range (5 to 550 Meters) including Ultra High Frequency wavelengths, as well as regular foreign Shortwave and Broadcast bands. • Power Output 25-40 watts, almost four times that of average radio. • Continuously Variable Treble Control to secure quality reproduction even when Variable Selectivity Control is at maximum. • Continuously Variable Bass Control operating full range high "Q" Bass Bi-Resonator system which does not muffle voice, or affect

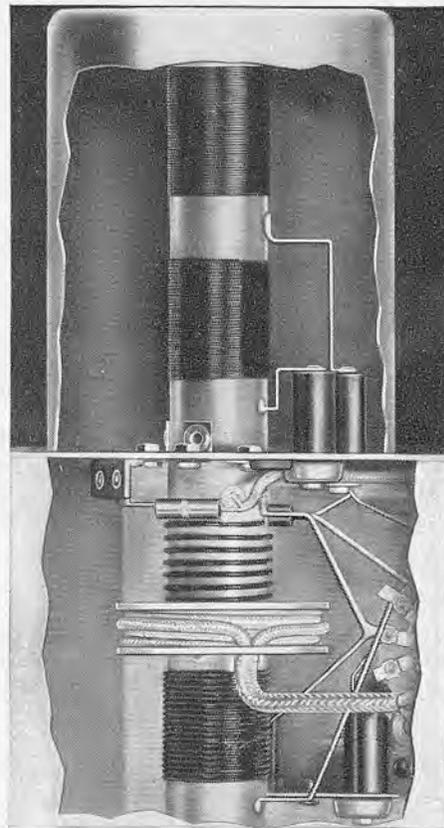
the higher frequencies in any way even when control is at maximum. • Variable (instead of fixed) Selectivity makes it possible to secure razor-sharp Selectivity from 3.5 Kc. for DX reception to 12.5 Kc. for High Fidelity reproduction. • Continuously Variable Sensitivity enables Sensitivity to be set at exact point to provide greatest possible long distance reception consistent with electrical interference level of your particular location. • Useable 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. • Improved Scott Supershield Antenna Coupling System and Dickert Automatic Noise Limiter, eliminates or absolutely minimizes local electrical interference now picked up on the antenna lead-in from vacuum cleaners, oil burners, automobile ignition systems, and other electrical appliances, so that many foreign shortwave programs, virtually blotted

out by such noise on the ordinary radio, can now be received with remarkable intelligibility. • Special R.F. Amplification on all bands provides maximum volume and quieter reception on DX stations. • Two Automatic Volume Control Systems (instead of the usual single system) keep transmissions from distant stations at a comparatively even volume level and reduce fading. • 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. • Specially Designed 15" High Fidelity Loudspeaker with High Frequency Diffuser 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. • High Fidelity Record Reproduction by merely connecting record player to terminals provided on chassis. All tone adjustments available for record reproduction. • Scott Needle Scratch Suppression practically eliminates surface noise when playing records without affecting High Fidelity at normal volumes. • Three Stage Audio Amplifier similar in design to those used in high grade broadcasting stations. • European Slide Rule Dial with indirect lighting. Large block-type lettering makes it easy to locate and identify the various bands and frequencies. • Two Tuning Speeds, fast for regular tuning, slow for precision adjustments when tuning in distant stations. • Silent Tuning Between Stations. • Shielding so complete that not slightest sound of signal can be heard from any station, even powerful local, when antenna and ground are isolated and disconnected. • Tuning Chassis

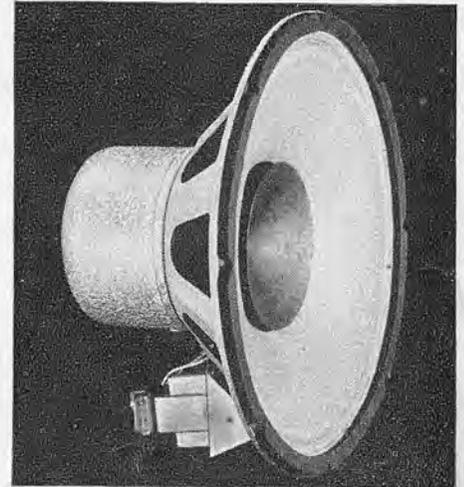
and Amplifier mounted on separate 14GA steel chassis. • Impregnated for Extreme Cli-

matic Conditions with every vital part impregnated and hermetically sealed so that instrument will stand up for many years under conditions which would soon render an unprotected receiver useless. • Both Chassis Finished in Gleaming Chromium (instead of commonly used cadmium) for maximum protection from salt air and dampness.

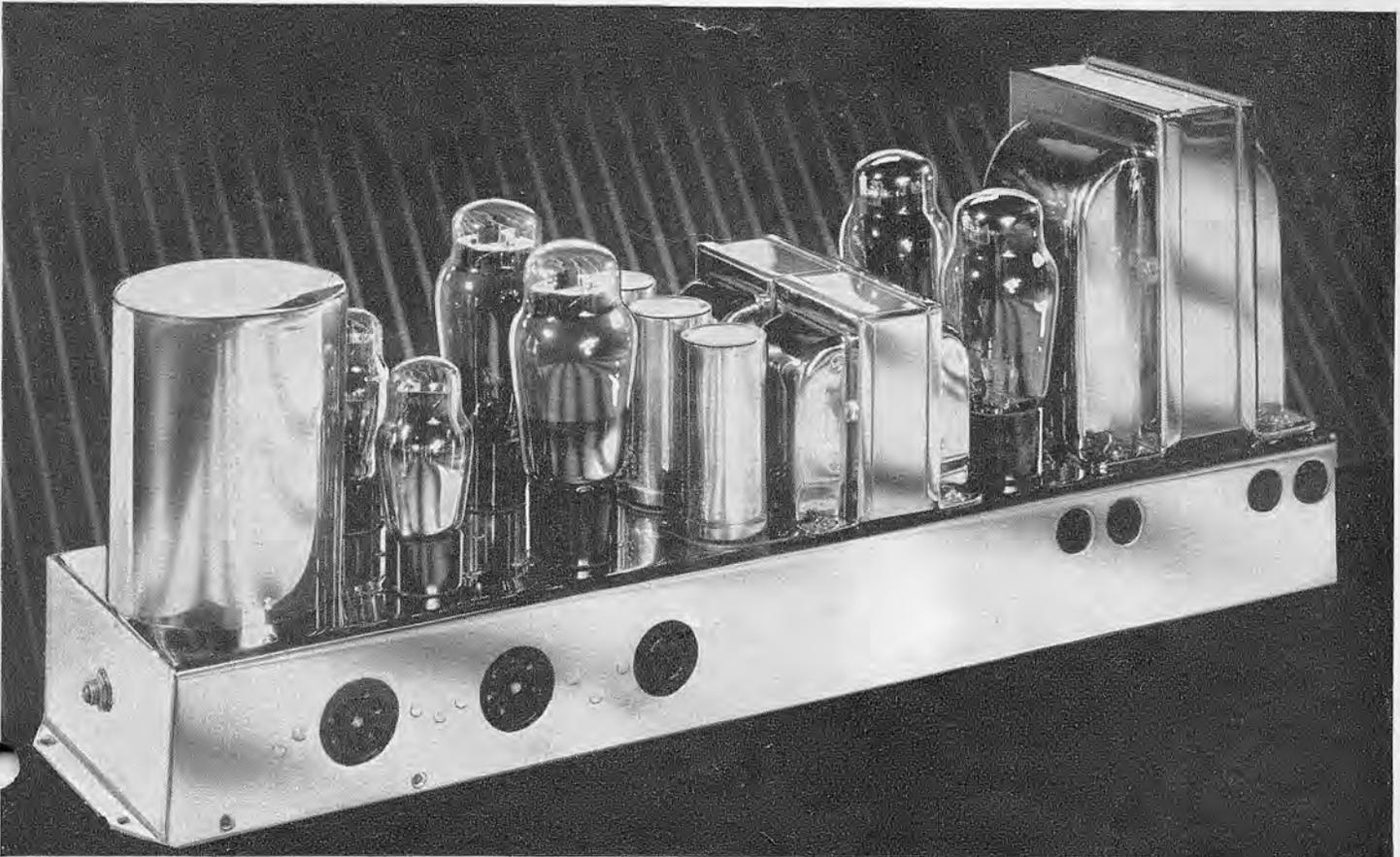
The SCOTT PHANTOM-DELUXE is custombuilt to order from the same high quality parts and by the same skilled technicians who build the SCOTT PHILHARMONIC. If any parts (tubes excepted, which are guaranteed by the manufacturer) become defective during a period of Five Years (instead of the usual 90 days) after your purchase, they will be replaced free of charge.



Sectional View Showing Antenna Stage with Scott Supershield Coupling System in New Scott Phantom Deluxe.



The 15" High Fidelity Speaker Used with Scott Phantom Deluxe.



Power Amplifier for New Custom Built Scott Phantom Deluxe



The Chippendale Grande

Designed for Scott Philharmonic, Phantom-Leluxe, or Masterpiece. Can be equipped with Scott Automatic Record Changer.



The Adam

Designed for the Scott Phantom-Deluxe and the Scott Masterpiece only. Can be equipped with Scott Automatic Record Changer.



The Linden

Designed for the Scott Phantom-Deluxe and the Scott Masterpiece only. Can be equipped with Scott Automatic Record Changer.



The Warwick

Designed as a separate console for the Scott Automatic Record Changer with ample storage space for twelve record albums.



The Sheraton

Designed for the Scott Phantom-Deluxe and the Scott Masterpiece only. Can be equipped with Scott Automatic Record Changer.



The Sheraton

Open view of the Sheraton, one of the most beautiful consoles ever designed to house a radio receiver and Automatic Record Changer.



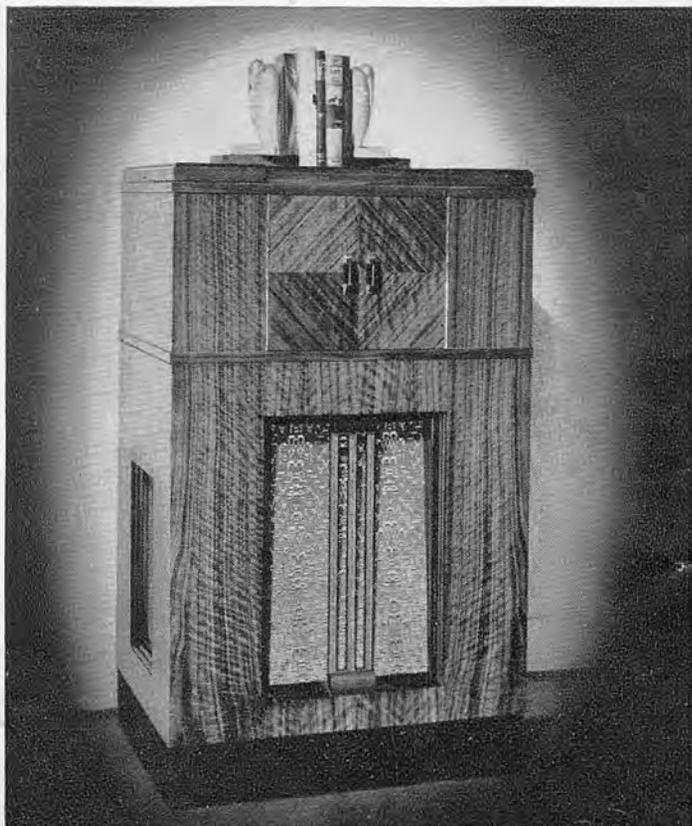
The Buckingham

Designed for the Scott Phantom-Deluxe and the Scott Masterpiece only. Cannot be equipped with Scott Automatic Record Changer.



The Stratford

Bookcase model designed for Scott Phantom-Deluxe and Masterpiece only. Cannot be equipped with Scott Automatic Record Changer.



The Acousticraft

Designed for Scott Phantom-Deluxe and Scott Masterpiece only. Cannot be equipped with Scott Automatic Record Changer.



The Braemar

Designed for the Scott Phantom-Deluxe or the Scott Masterpiece only. Cannot be equipped with Scott Automatic Record Changer.



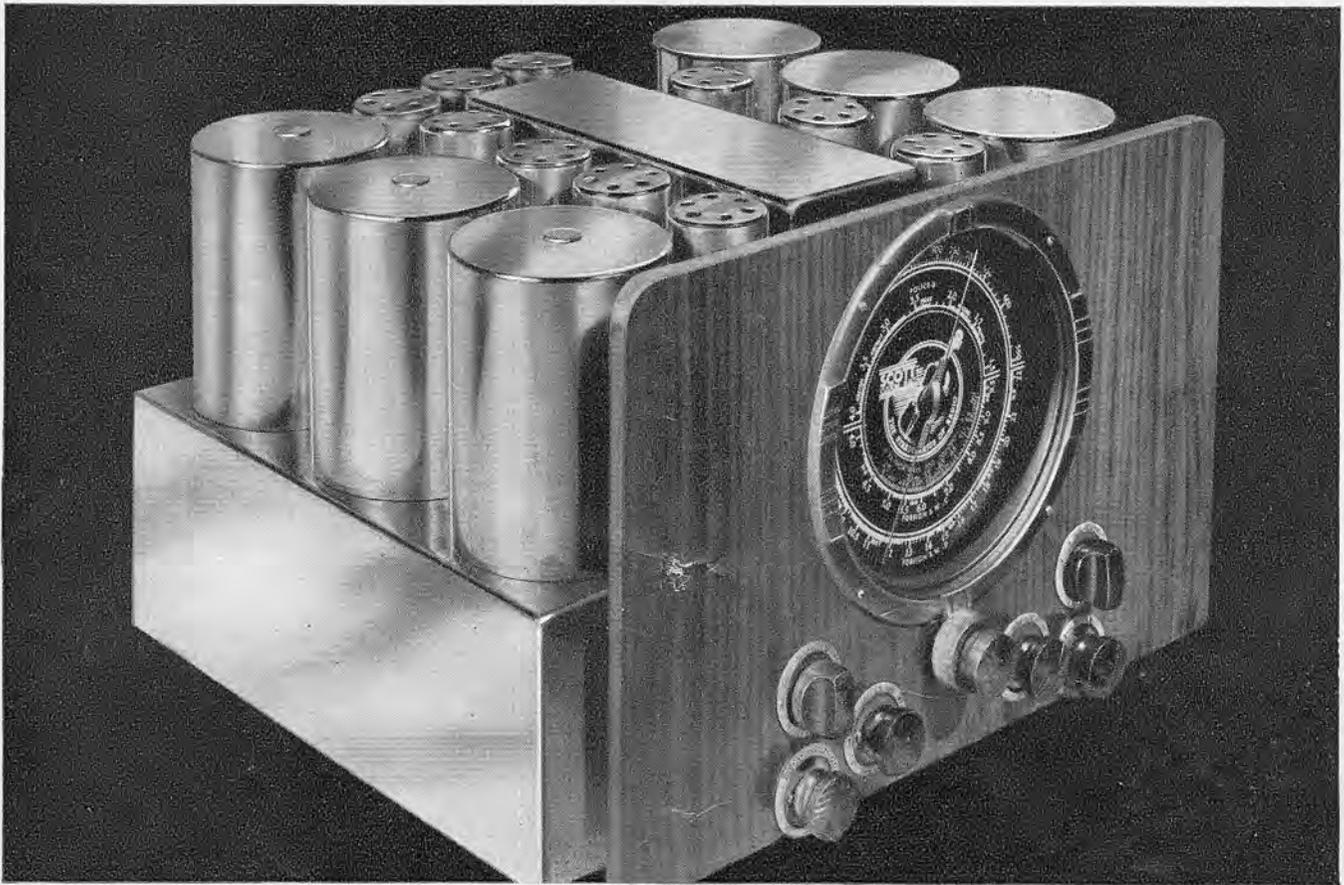
The Waverly Grande

Designed for Scott Philharmonic, Phantom-Deluxe or Masterpiece. Can be equipped with Scott Automatic Record Changer.



The Warrington

Designed for Scott Philharmonic, Phantom-Deluxe, or Masterpiece. Cannot be equipped with Scott Automatic Record Changer.



Tuning Chassis of Scott Masterpiece

The **SCOTT** *Masterpiece*

AN IDEAL RECEIVER FOR THE SMALL HOME OR APARTMENT

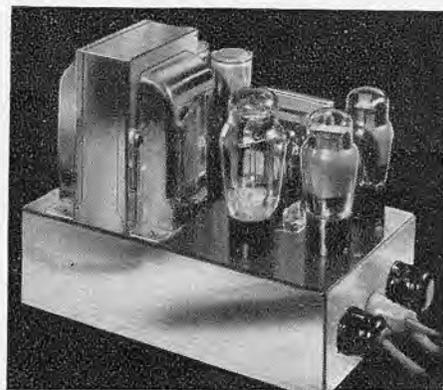
THE 14 tube SCOTT MASTERPIECE, although compact in size, is designed to give you the same high standard of tonal quality and DX performance that has made the SCOTT a treasured possession in homes all over the world. It is the ideal instrument for the small home or apartment in which it is not convenient to install the larger PHILHARMONIC or the PHANTOM-DELUXE.

You will find on studying the technical specifications which follow that the new SCOTT MASTERPIECE incorporates many of the same advanced engineering developments as the larger deluxe models, and with its 14 tubes is capable, we believe, in either a tone or long distance test, of outperforming any other make of radio in the world. It is sold with the privilege of comparing its performance in a side-by-side test with any other make of radio either for tone or ability to bring in distant foreign stations with volume and clarity. If the SCOTT MASTERPIECE does not demonstrate its superiority in every way—and you are to be the sole judge—you have the privilege of returning it, and the purchase price will be promptly refunded. A

convincing proof of the advanced design incorporated in the SCOTT MASTERPIECE will be obtained on making a comparison of the features incorporated in it with those of any other make of receiver available today.

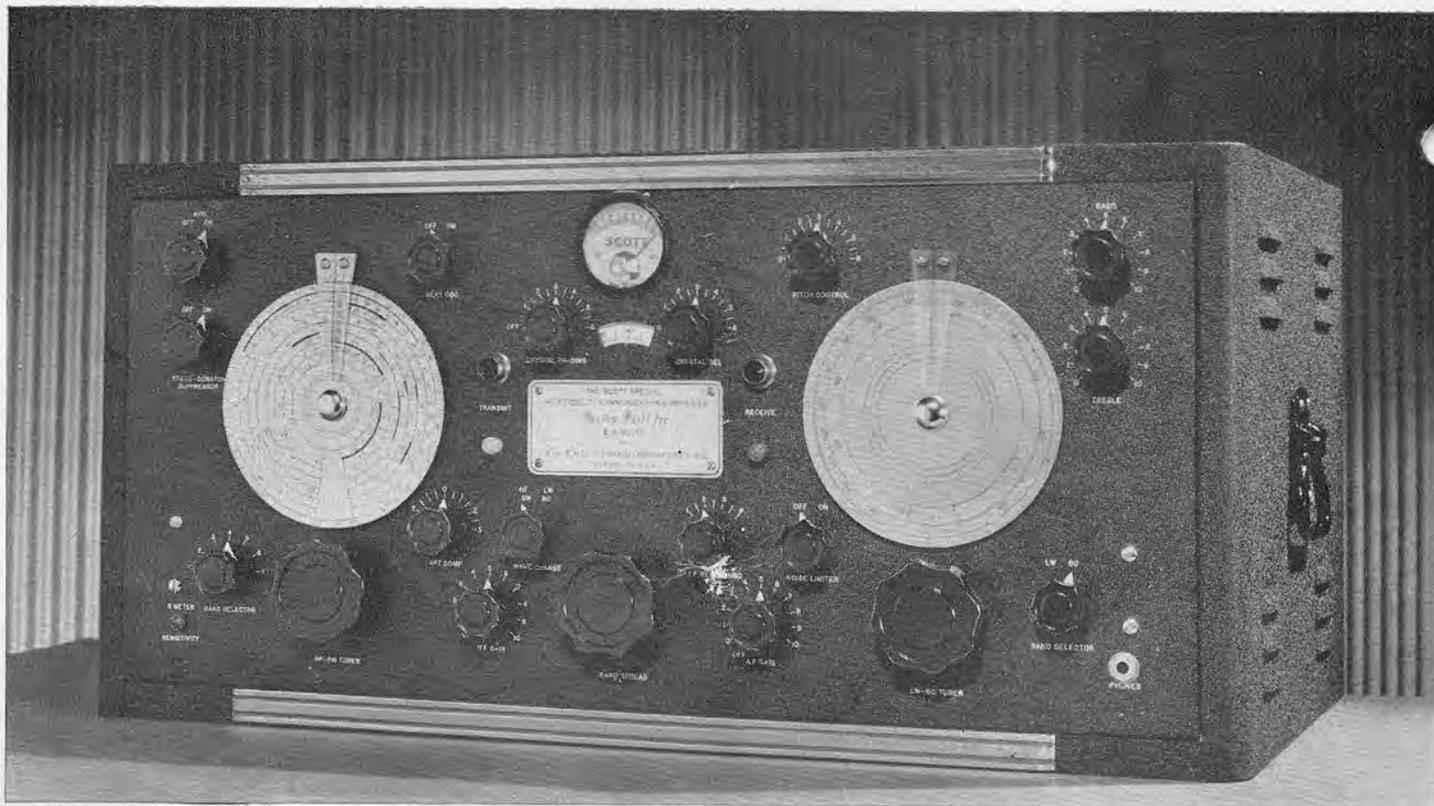
A summary of the technical features of the SCOTT MASTERPIECE follows:

- 14 latest type octal base tubes.
- Overall Fidelity practically flat from 30 to 7,500 cycles.
- Wavelength Range 5 to 500 me-



Power Amplifier for Scott Masterpiece

- Power Output 9-15 watts.
- Combined Variable Selectivity and Fidelity Control.
- Continuously Variable Bass Control.
- Variable Sensitivity Control, with Two Positions, HI for maximum Sensitivity to bring in distant foreign stations; LO for reception of nearby or local stations.
- Latest Scott Supershield Antenna Coupling System.
- Special RF Amplification on all bands.
- Inverse Feed-back to improve speaker response.
- Specially designed 12" High Fidelity Speaker with High Frequency Diffuser.
- Terminals for instantly attaching record player (automatic or manual) to improve High Fidelity record reproduction.
- Five Wavebands, each precisely calibrated on edge-lighted glass dial.
- Two tuning speeds—fast, for regular tuning; slow, for shortwave tuning.
- Silent tuning between stations.
- Complete shielding.
- Tuning Chassis and Amplifier on separate bases.
- Both chassis finished in gleaming chromium for maximum protection against salt air and dampness.
- Impregnated for extreme climatic conditions.
- All parts (except tubes) guaranteed for Five Years against defects.



The Dual Tuning Chassis of the Special High Fidelity Communications Receiver

A VERY UNUSUAL RADIO RECEIVER

I feel sure a number of my friends throughout the world will be interested in knowing something about a special receiver which I recently built for my own personal use. As you can see from the photograph, it is a highly professional instrument, and something the average wife would never allow in a living room. As a matter of fact, I have very definite proof of this because I am obliged to keep mine in my upstairs den, as Mrs. Scott would not allow it in the living room, for she says she much prefers the Philharmonic and Chippendale Grande she has there.

In the picture showing the SPECIAL installed in my den, you will notice just below the electric clock a double pole-double throw switch. The outside contacts of this switch are connected to two Scott Super Double-Doublet Antennae, one of which runs North and South, the other East and West. Incidentally, to secure maximum height above the trees two 20' 4x2 clear pine poles were nailed together so that they made single poles of 30', then these poles were securely lashed to the tops of the highest trees nearest the house. By changing from one antenna to the other, I can often

practically double the signal strength of a station. However, it appears that about 90% of the time, the antenna facing North and South gives the best signals.



View Showing Installation of the Special in Mr. Scott's Home

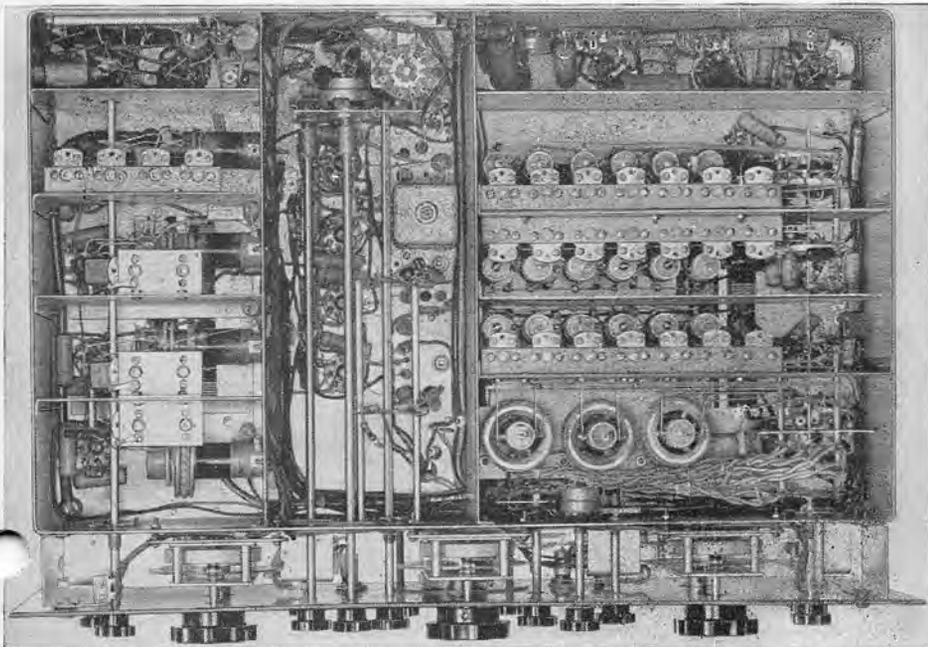
The maps on the wall make it fairly easy for me to follow the location of the towns mentioned in the various war news broadcasts tuned in nightly from London, Berlin, Paris, Rome, and Moscow. The electric clock, I might say, has been checked and synchronized to the split second with Big Ben in London. It is quite interesting to have London tuned in and watch the second hand slowly moving up, then hear Big Ben strike the hour when the second hand is actually "right on the dot."

Undoubtedly, the average man would find it difficult to master the 20 different controls on the panel, but once you do master them, you can really "go to town" when it comes to bringing in stations from various parts of the world. Each control has a distinct and separate purpose. The SPECIAL has, of course, all of the usual controls found in a receiver built for professional use, including band spread, B.F.O. and pitch control, antenna compensator, R.F. gain, AVC on a off, etc., in addition to several new ones incorporating developments of my own Research Laboratories.

In addition to the regular calibration on the seven short wave



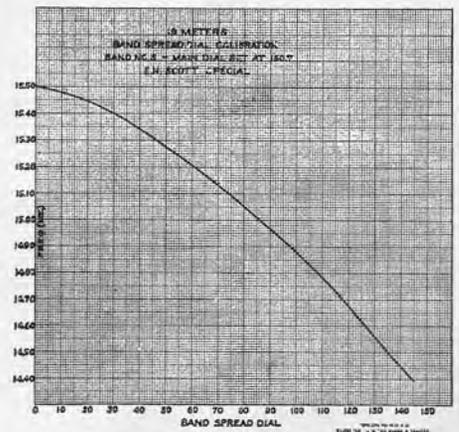
View Showing the Two Antennas, One Facing E. and W., the Other Facing N. and S.



View Showing the Very Complex Wiring and Coil System Under Chassis of Special

bands on the dials, I have eleven graphs with individual calibrations for the 5, 10, 13, 16, 19, 20, 25, 31, 49, 80, and 160 meter bands. These curves, used in conjunction with the Vernier scale above the main Shortwave dial, and the Band Spread dial, make it a simple matter to tell in a second the frequency of any unknown station being received. This is probably going to extremes in calibrating a radio receiver, but shows what can happen when one's business is also his hobby.

One big difference between my receiver and the standard professional set, is that mine, although it is a professional receiver covering all wavelengths from 65 megs (5 meters) up to 2,000 meters, is *actually a High Fidelity receiver*. The professional radio operator is not so much interested in High Fidelity reception, and for this reason the commercial sets are notoriously deficient in tonal quality. However, being a lover of fine music, and especially of the new High Fidelity recordings, I certainly would not be content with any instrument designed purely for distance-



Each of the Principal Short Wave Bands Are Calibrated on Individual Curves.

getting. To me, the Scott Philharmonic is the highest type of instrument ever perfected for musical reproduction, so I have incorporated in the SPECIAL nearly all of its features. As a result, I can switch over instantly from a distant foreign short wave station to a local high fidelity broadcast or to my choice of superb recorded music. The record changer is in a separate cabinet in another part of the den.

A very interesting feature on the SPECIAL is that it has not one tuner, but two separate tuners, both on the same chassis. Actually, I can have two stations tuned in on the SPECIAL at the same time, one on the Shortwaves, another on the Broadcast band, and by a flick of the switch marked "Wavechange" and without touching any other control, can bring in instantly either station. It is extremely interesting, when one of the local stations is rebroadcasting war news from Europe, to switch over and receive the same program direct from the European station, then by throwing the control switch, make an *instant* comparison between the reception direct from Europe, and the same program being rebroadcast from the local station.

The average man who is interested principally in the reception of the major stations of the world, hardly needs a receiver of this kind, but for one to whom radio is a thrilling, fascinating hobby, this receiver is a dream come true.

THE SCOTT RECORD REVIEW

THE review which follows does not attempt to assign any musical values to the various works listed. You may, or you may not be impressed with the music—the fact that I like it does not necessarily mean that you will like it too—but if any selection below is the type of music which appeals to your individual taste, then the album may be purchased with confidence that it represents the ultimate in consummate recording. Each is a superb example of the perfection which has been attained in this field.

As you may know, practically all the compositions which may be called “standard” masterpieces—the greatest and best-loved music of the masters—have already been electrically recorded. Therefore, most of the monthly record releases consist either of (1) less familiar compositions of the great composers, (2)

works by comparatively minor or contemporary composers, (3) new recordings of masterpieces which were originally recorded some time ago. I would like to hear from readers of the Review as to whether they wish me to continue discussing these newer releases, or whether they prefer that I draw upon the various recording studios' stock of the finest recordings of great masterpieces only, regardless of whether they are recent releases or not. In other words, would you like to see this review continue to discuss only the *latest* recordings, or would you rather have me also call your attention to superlative high-quality recordings even though they may have been released from say one to three years ago? I believe this latter plan will be of more value to the average record enthusiast who wants to build up a library of only accepted masterpieces. At any rate, I would greatly appreciate your suggestions.

Sonata in E Minor for Piano and 'Cello, Opus 38 (Brahms) Arthur Rubinstein and Gregor Ptatigorsky. Three 12" Victor Red Seal Records—Album AM564 for Automatic Record Changer. Album M564 for Single Record Player.

Most people find it rather easy to enjoy the music of such Masters as Haydn or Schubert after a few hearings. On the other hand, the music of Brahms (probably the greatest musical genius of the 19th Century) is often thought to be difficult and incomprehensible. This is perhaps because his works, in most cases, cannot be easily whistled or hummed. That is to say the music is not exactly “tuneful” and for this reason fails to move the average individual who likes to read his newspaper while listening to an album of symphonic music. However, there are other beauties in this great music which will manifest themselves after it is carefully and attentively listened to three or four times. In my opinion, a quite excellent introduction to the music of Brahms is the above album.

Raymond Massey in Scenes from "Abe Lincoln in Illinois," Pulitzer Prize Play of 1939 (Robert E. Sherwood). Three 12" Victor Records—Album Number M591.

This album is not available in the AM sequence usually required for automatic record changers, but this is of no consequence as each scene is complete on one side with the exception of the “Reply to Stephen A. Douglas.” The various selections are as follows: “Lincoln's Prayer” “Farewell to Springfield,” “Scene in Lincoln's Law Office,” “Reply to Stephen A. Douglas,” “Lincoln's Proposal to Anne Rutledge.” The last mentioned is a particularly impressive piece of work. Most of us remember the early days of the gramophone and the first voice records such as the speeches of William Jennings Bryan. It is a far cry from these crude and early efforts to this present masterpiece. The scratch level is not at all high, as might be expected from a recording of voice only, and it does not possess that peculiar hollow sound which marred the earlier records. Reverberation has been kept at an absolute minimum.

"Todtentanz" (Liszt)—Jesus Maria Sanroma with Arthur Fiedler and the Boston "Pops" Orchestra. Two 12" Victor Red Seal Records—Album Number M392.

A Scott owner here in Chicago who had just discovered this album, telephoned me last week and urged that I beg, borrow, or steal this recording as it was undoubtedly the finest work of its kind he had ever heard. After hearing these recordings, particularly the last side of the second record, I can enthusiastically agree. In the booklet which accompanies the album is Victor's statement as follows, and if anything, it is a gross understatement of the fine quality this recording possesses: “As for the recording itself, Victor is particularly proud and dares to state that no recording of piano with orchestra heretofore made, approaches this one in brilliance and fidelity. Let the records themselves be the evidence.”

"From the Opera"—Richard Crooks, Tenor, with Orchestra Conducted by Wilfred Pelletier—Three 12" Victor Red Seal Records. Album Number M585.

This recording consists of six separate selections on as many record sides. The selections are as follows: L'Arlesiana—Lamento di Federico (Cilea); I Pescatori Di Perle—Mi Par d'Udir Ancora (Bizet); Le Roi D'Ys—Vainement, Ma Bien Aimee (Lalo); Manon—Ah! Fuyez, Douce Image! (Massenet); Romeo Et Juliette—L'Amour Son Ardeur—Ah! Leve—Toi Soliele (Gounod); Faust—Salut, Demeurer (Gounod).

The album is ideal for those with a limited budget who want only one volume of representative operatic recordings in their library.

Concerto in D Major for Violin and Orchestra, Opus 77 (Brahms)—Jascha Heifetz and the Boston Symphony Orchestra under the direction of Serge Koussevitsky. Five 12" Victor Red Seal Records—Album Number AM581 for Automatic Record Changer. Album Number M581 for Single Record Player.

Probably the finest recording to date of this “standard” masterpiece. The recording took an exceptionally long time to complete, and

represents one of Victor's highest accomplishments. I might, however, add what I hope will be constructive criticism which applies to a few other extended works covering several successive records. The last side of the last record is blank, and while this fact offers no disadvantage to the owner of a Single Record Player or Scott Automatic Record Changer, it may cause slippage when certain types of record changers are used. That is, the last record may slip considerably during the playing, resulting in an annoying “wow.” It is probably the manufacturer's contention that when a great work of this kind is concluded, it might detract from the value of the music to add a short work (on the last side) of an entirely different character. This is perfectly true, but there appears to be another solution to the problem. Most programs are arranged so that the main musical fare is produced by a short overture. Could not this principle be applied to records? For example, a recording which covers say seven sides is usually arranged so that the last side is blank. Instead of such a plan, why not occupy the first side with an overture or other short selection? The album would then “come out even,” the concluding portion being on the eighth side.

Folk Songs of Central Europe—Trapp Family Choir consisting of mixed voices unaccompanied. Dr. Franz Wasner, Director—Five 10" Victor Red Seal Records. Album Number M586.

If you enjoyed the Trapp Family album of early choral music reviewed some time ago, you will want to add this latest work to your collection. It is excellently recorded and no selection is carried over from one side to another.

Encores—Arturo Toscanini and the NBC Symphony Orchestra. Two 12" Victor Red Seal Records. Album Number M590.

The various selections on this album are as follows: (1) Scherzo and Adagio from Beethoven's Quartet in F Major, Opus 135 and (2) Paganini's Moto Perpetuo. For sheer beauty of tone and technical perfection of the records, this album is unsurpassed by any recent Toscanini's releases.

E. H. SCOTT RADIO LABORATORIES, INC.

(ALSO SUCCESSORS TO McMURDO SILVER CORPORATION)

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