

# SCOTT



# NEWS

NEWS OF LATEST DEVELOPMENTS IN THE SCOTT RESEARCH LABORATORIES

Vol. II

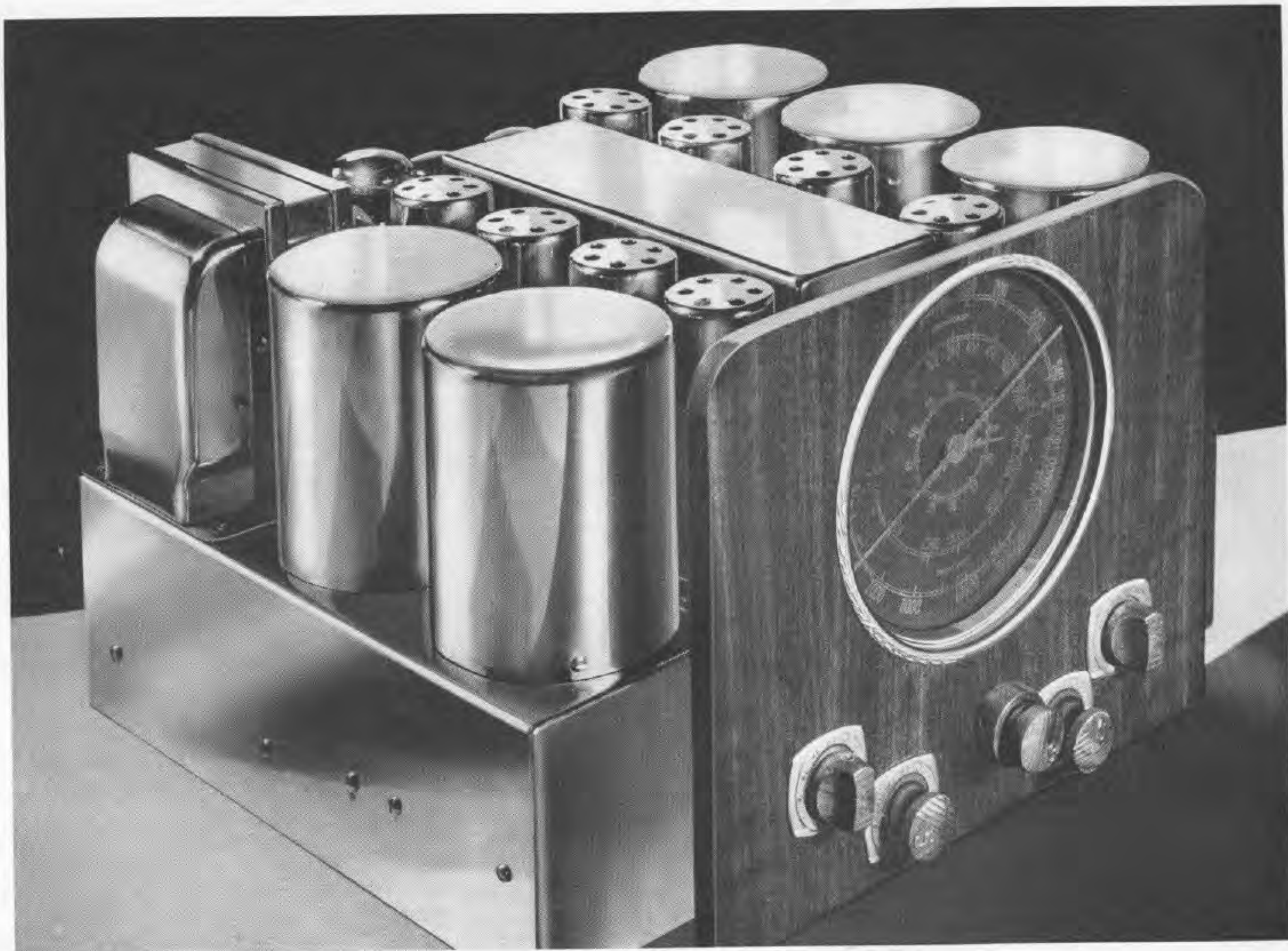
SEPTEMBER, 1938

No. 4



**THE NEW SCOTT PHANTOM IN BRAEMAR CONSOLE**





**The Scott Super XII Chassis**

## *The New* **SCOTT SUPER XII**

### **A SUPER EFFICIENT CUSTOM BUILT TWELVE TUBE RECEIVER**

For many years I have specialized in the design of super-powerful Custom Built receivers, and although there are many thousands of radio enthusiasts who would like to have a Scott in their homes, up to this time many have felt they could never own one because of the high cost.

The majority of Scott receivers have been installed in the larger homes where it is necessary to have a large power output to provide sufficient volume to cover all parts of the more spacious rooms in such homes. However, I have received thousands of letters asking if I could not build a more compact receiver for those who would like to own a Scott, but do not have the space to install a large receiver, and do not require the large power output because the receiver is used in a moderately sized room. To meet this demand, the new Scott Super XII has been designed, and will, I know, be found the ideal receiver for the moderately sized apartment or-home.

Then again, there are many who purchased their present radio receiver several years ago which, altho now obsolete, is in-

stalled in a fine cabinet which the owner does not care to part with. Many of these have asked me to supply them with the chassis only to install in their present cabinet. Owing to the fact that the Scott chassis previously have been so large, it has been impossible to install them in the regular console. The Scott Super XII being only 16" wide, 14" deep and 11½" high, will easily fit in nine consoles out of ten. The speaker is 12" in diameter and 7½" deep. Although it has been priced without a cabinet, it can be installed in any of those shown on the order blank. To arrive at the complete cost, simply add the price of the cabinet selected to the chassis price.

*In the design of the Scott Super XII nothing has been sacrificed for the compact size, for it is Custom Built by the same skilled technicians who have been building Scott receivers for years, and from the same high quality parts. It is sold with the same guarantee—Five Years against defects in either workmanship or material, and a 30 day trial during which time you can test its performance against*

*any other make of radio receiver—irrespective of price or number of tubes. If the Scott Super XII does not prove its superiority in every way by bringing in stations from greater distances, clearer, quieter, and with more volume—if it does not have finer tone—and you are to be the sole judge—you can return it and the purchase price will be refunded.*

#### **The Basic Circuit**

The Scott Super XII is an advanced Super-heterodyne with 12 tubes, one double-purpose, the other triple purpose, giving fifteen tube performance, and are used as follows: R.F. stage using a 6U7G tube—Converter using a 6L7G tube—Oscillator using a 6J5G tube—Two stages of I.F. amplification using two 6K7G tubes—A.V.C. system controlling both R.F. and I.F. tubes and infinite impedance detector using a 6F8G tube—Three stages of Audio amplification using a 6K7G tube in the first stage—a 6F8G in the second stage as a phase inverter and push pull driver—Two 6V6G Beam Power tubes in push pull in the output stage—a 5Z3 tube



is used as a Rectifier, and a 6E5 tube as a tuning indicator.

### Wave Bands Covered

The Scott Super XII is a four wave band receiver, covering all frequencies from 13 to 550 meters, tuning everything on the foreign and U.S.A. shortwave bands, amateur, police, aircraft and American broadcast band between these frequencies, for there are no gaps between wave bands.

### The Fidelity Range—30 to 8,500 Cycles

One of the most outstanding features of the new Scott Super XII is, as it is in all Scott receivers, the clear and beautiful tone. It is a true "High Fidelity" receiver, reproducing all frequencies from 30 to 8,500 cycles. This means that when you listen to a program you hear not only the fundamental tones, but also the rich overtones and harmonics.

Except for the fact that the Scott Super XII has a slightly lower output—9 watts undistorted as against the 13 watts of the Scott Phantom—the tone is just as perfect as in the instruments I have built for such outstanding figures in the musical world as Arturo Toscanini, Lauritz Melchior, Eugene Goossens, Gennaro Papi, and many others.

### Separate Variable Bass Control

A separate variable Bass Control is provided so that the lower frequencies may be adjusted to the point where they are most pleasing to *your* ear. While most people prefer the Bass tones exactly as transmitted, many prefer to hear them strengthened. The new Bass Bi-Resonator system incorporated provides perfect reproduction of the bass or lower frequencies *without affecting the reproduction of the speaking or singing voice on any of the higher frequencies*, and being Variable enables you to either strengthen or weaken the Bass response until it is at the exact point most pleasing to your ear.

### Tone Balanced Volume Control

When the volume is turned down on the ordinary type of radio receiver, the bass tones and most of the higher frequencies disappear, leaving only the notes in the middle register clearly audible. In the Scott Super XII a perfected Tone Balanced Volume Control system is incorporated so that even when the volume is turned down to a very low point, the rich bass tones, together with the higher overtones, are automatically strengthened so that all programs can be enjoyed as much when listened to at low volume, as they are when heard at normal or high volume.

### Undistorted Power Output of Nine Watts

The Scott Super XII has an undistorted Power Output of 9 watts (approximately twice that of the ordinary radio) which is obtained with less than 3% harmonic distortion, and has a peak output of 12 watts. The very pure audio output obtained thru the use of a highly developed three stage audio amplifier, in which is incorporated the

latest beam power tubes in the output stage, is just another of the reasons why musicians are so enthusiastic about the pure natural tone of Scott receivers.

### Variable Selectivity

To bring in distant stations on both the shortwave and broadcast bands without interference, a receiver must have razor-edge Selectivity, keen enough to cut thru powerful locals and bring in stations separated from them by only 10 Kc. On the other hand, to provide perfect reproduction on all frequencies up to 8,500 cycles, the receiver must be capable of passing, without attenuation, a band of  $7\frac{1}{2}$  Kc. on each side of the carrier. In the Scott Super XII this is accomplished by providing a control which gives two degrees of Selectivity; one razor-sharp for distant station reception, the other broad for high fidelity reproduction. This makes it the ideal receiver not only for the DX enthusiast who enjoys bringing in distant foreign stations, but also for the lover of music who enjoys the finest possible tone quality.

However, the Selectivity control in the Scott Super XII goes far beyond the Selectivity control that is sometimes incorporated in the higher priced production type receivers, giving you the choice of *two* positions when the receiver is *Selective*; one in which the Fidelity is normal for the Selectivity, and the other where the highs are strengthened, so that even when the set is *Selective*, the Fidelity is still very good. These *two* positions are provided in the *Selective* position, because occasionally when receiving weak distant stations it is sometimes advisable, when atmospheric conditions are bad, to cut the Fidelity, and the second position enables this to be done.

When you pass on to the third position in the Selectivity control, the receiver automatically is broadly tuned. However, if the higher overtones are not coming thru from the station being received, or a phonograph record is being played, there are two more Fidelity positions provided with which you can strengthen the higher frequencies to bring out more clearly the higher overtones in both voice and music, eliminating all trace of boominess, and making the tone clearer and more natural. In this position the Fidelity is practically flat from 30 to 8,500 cycles.

### Sensitivity Unusually High

To bring in the ordinarily weak distant foreign stations, a receiver must have a high degree of Usable Sensitivity. In the Scott Super XII is incorporated all of the experience of nearly 15 years gained in designing and building special receivers for long distant foreign reception. I sincerely believe no other receiver being sold today, except the more powerful Scott Phantom, is capable of bringing in distant foreign stations so clearly and with so much volume. So sure am I of this that the Scott Super XII is sold with the definite understanding you are to have 30 days after it is installed in your home to make any kind of competitive test against any other make of receiver, irrespective of price or number of tubes. If it does not bring in distant stations, both on the shortwaves and broad-

cast band *with more volume and less noise and interference, then you can return it and your money will be refunded.*

### Automatic Volume Control Holds Programs at Constant Level

To enjoy programs from distant foreign stations, the volume must be kept at a constant level. If the program continually fades in and out, then a great deal of the pleasure of listening to foreign stations is destroyed. In the Scott Super XII is incorporated a highly developed A.V.C. system that controls both the I.F. and R.F. tubes, automatically increasing the Sensitivity of the receiver when the distant signal fades, and decreases it when the signal becomes too strong. This automatic action within the receiver maintains a practically constant volume level at all times, adding tremendously to the pleasure of listening to distant foreign stations.

### Can Be Used With Any Type of Antenna

The Scott Super XII will operate satisfactorily with any type of antenna, but for maximum performance it is strongly advised it be used with the new Scott Super Double-Doublet described on page six.

### Record Reproduction

Connections are provided for attaching an automatic record changer, which will provide reproduction from the new high fidelity records that is equal to the programs received over the air. See pages 9, 10, 11 and 12 for further information on the pleasure that can be obtained from the Scott Super XII when used in conjunction with a record reproducer.

### Five Year Guarantee

The Scott Super XII is guaranteed against defects (except tubes which are guaranteed by the tube manufacturer) for *FIVE YEARS* instead of the usual 90 day guarantee given with ordinary radio receivers.

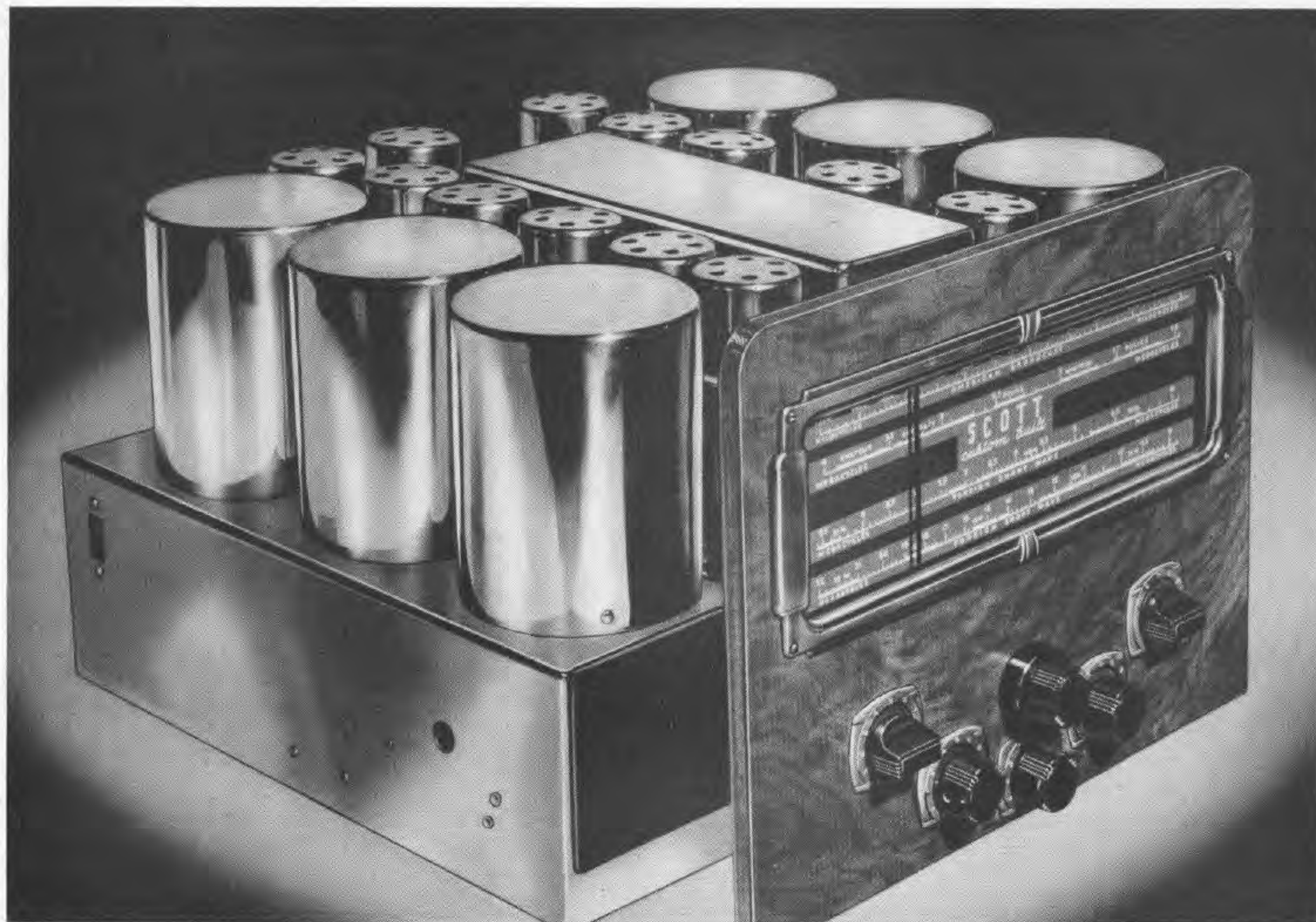
### 30 Day Trial Given to Prove Superiority

The Scott Super XII is sold with the distinct understanding you are to be allowed 30 full days (U.S.A. only) after delivery to test the set in your own home. If it does not outperform any other make of receiver, regardless of price or number of tubes used, you are at liberty to return it any time within the 30 day period and we will promptly refund the purchase price you paid for it. You are to be the sole judge of its comparative fidelity ("tone quality") selectivity, and sensitivity.

### Liberal Budget Plan

The Scott Super XII can be purchased on extremely liberal Budget Plan terms in the United States. The transaction is strictly private as you deal directly with the E. H. Scott Radio Laboratories. Full details on Budget Plan terms will be found on the order blank.





## THE SCOTT PHANTOM CHASSIS

# The **SCOTT** Phantom

## A DELUXE CUSTOM BUILT HIGH FIDELITY RECEIVER WITH WORLD WIDE DX RANGE

The Scott Phantom is a Deluxe 19 tube instrument, Custom Built to Order for those who want a better and finer radio receiver. Once you hear it, you will agree that this precision instrument has little in common with the ordinary radio receiver sold in retail radio stores.

Year by year, the Scott Research Laboratories have pioneered in advanced radio receiver design, and today we believe it is generally agreed not only in U.S.A., but in practically every part of the world (for Scott receivers are in daily use in 149 foreign countries) that a Scott stands for the ultimate in advanced radio receiver design and performance. Every Scott receiver is hand made by precision engineering methods—the finest known to custom craftsmanship—a radio subjected to scientific tests by laboratory experts to insure perfect performance. The owner of a Scott enjoys not only the experience of world-wide reception, but revels in a beauty of tone, a wealth of power, and has at his command a degree of Selectivity and Sensitivity such as the ordinary set owner, until he has heard a Scott, would say were impossible.

Below you will find described some of the

technical features of the new Scott Phantom which enable it to reach a degree of tonal perfection, and provide a world-wide reception range we believe is not even remotely approached by any other receiver in the world today.

**The Basic Circuit.** The Scott Phantom is a highly developed Superheterodyne with 19 tubes, two of them double purpose, giving 21 tube performance. These tubes are used as follows: R. F. stage using 6U7G tube—Converter stage using a 6L7G tube—Oscillator using 6J5G tube—Three stages of I.F. amplification using three 6K7G tubes—R.F. Automatic Volume Control using a 6B8G tube—6H6G supplying I.F. Automatic Volume Control, Detector and Noise Limiter circuit—One 6B8G and one 6L7G tube in Scratch Suppressor circuit—Three stages of audio amplification using a 6K7G tube in the first stage—6J5G in the Inverter stage—Two 6J5G in the second audio as push pull drivers—Two 6V6G beam power tubes in push pull with inverse feed back—Two 5V4G tubes are used as Rectifiers, and one 6E5 tube as a Tuning Indicator.

**Wave Lengths Covered.** The Scott Phan-

tom has a continuous tuning range (no gaps) from 550 Kc. to 22.2 Megs. which are covered on four bands.

**Tremendous Usable Sensitivity.** When we speak of a radio receiver's Sensitivity, we refer to its relative ability to receive distant foreign stations clearly and quietly with good volume. While it is quite an easy matter to design a radio having high Sensitivity, tube hiss is often high, and such a receiver usually is very sensitive to noise, and local electrical interference. In other words, it is only the actual NET Sensitivity (*after noise has been deducted*) or Usable Sensitivity that is of any practical value. The loudness of the program (signal strength) compared with the degree of noise present, is the *only* ratio by which a radio receiver's Sensitivity can be correctly judged.

In the Scott Phantom, highly efficient new circuit arrangements practically eliminate objectionable tube hiss, providing still quieter reception of weak transmissions from distant foreign stations that are often not heard on other receivers because of the high tube hiss. However, the greatest source of noise is household appliances such as electric razors, electric refrigerators, oil burners, vacuum cleaners, vio-



let ray machine and various other household appliances used in your own home or in nearby buildings. The Scott Supershield Antenna Coupling System (Patent Applied For) incorporated in the Scott Phantom chassis, practically eliminates such annoying interference picked up on the antenna lead-in, enabling you to listen to programs from distant stations when neighbors are often obliged to turn off their receivers.

The actual Usable Sensitivity of the Scott Phantom is better than 0.6 microvolt, and the Signal-To-Noise Ratio is so high that many remote foreign shortwave stations and distant broadcast band stations ordinarily lost in the internal rumble and noise of other receivers can be really enjoyed on the Scott Phantom. Such "hard to get" stations can often be received on this instrument with tone quality, freedom from noise, and volume level approaching that of local stations.

A separate control is provided whereby you can increase the Sensitivity when tuning in very weak distant stations, or reduce it when tuning locals and the more powerful stations. This not only enables you to secure quieter reception in difficult locations, but also eliminates the usual noise between stations.

**New Automatic Noise Limiter.** On the standard broadcast band, the ignition system of automobiles never interferes with radio reception, but on the shortwaves, every automobile passing within about 300 feet will practically blot out the program you are hearing. The new Automatic Noise Limiter incorporated in the Scott Phantom, reduces this interference to such a low point that shortwave stations can now be enjoyed even if you live on a well-travelled highway.

**Two Separate Automatic Volume Control Systems.** On radio receivers having no Automatic Volume Control, programs from distant stations periodically fade in and out. In the Scott Phantom Two Separate Automatic Volume Control Systems are incorporated to control fading, and the system is similar to that used in the specialized commercial receivers used for re-broadcasting—elaborate instruments costing thousands of dollars.

**New Selectivity Expander and Contractor System** is incorporated in the Scott Phantom which enables you to secure just the right amount of Selectivity required. When stations on adjacent dial readings interfere with one another, the turn of this knob enables you to make the receiver so selective that it is possible, in most cases, to eliminate the undesired station. Technically, the Selectivity range is from 3.4 Kc. to 12.5 Kc.

**Three Stage Intermediate Frequency Amplifier,** one of the most powerful and highly developed I.F. amplifiers ever incorporated in a superheterodyne receiver for home entertainment is used in the Scott Phantom.

**Special Radio Frequency Amplifier** on all wave bands gives approximately twice the efficiency of the R.F. amplifier used in the regular mass produced radio.

**True High Fidelity.** The greater the frequency response of a radio receiver, the more realistic its reproduction of voice and music. The highly developed Audio system of the Scott Phantom has a frequency range extending from 30 to 16,000 cycles, and the overall Fidelity of the instrument is practically flat from 30 to 8,500 cycles. This simply means that the quality of reproduction is nearly twice that of many high priced factory-built receivers of latest design, and the resulting realism of voice and music is such that there seems to be an actual physical presence of the orchestra or artists in your living room. You need hear this remarkable instrument just *once*—and thereafter I believe you will never be satisfied until you actually own one yourself.

**A Separate Continuously Variable High Fidelity Control** enables you to do two things: (1) match the tonal response of the new Phantom to your individual hearing, and to the acoustical properties of the room in which the receiver is located; (2) actually improve the quality of certain broadcasts, for example, when studio acoustics are poor; when an artist stands too near the microphone, making his voice sound boomy; or when the quality of the program is poor due to the fact that it has been "piped" over chain outlets.

**Separate Continuously Variable Bass Control.** Most Bass Controls when rotated merely cut off some of the higher frequencies (over-tones which give intelligibility to voice and timbre to music), merely giving you an illusion of increased Bass. In the special Bass Control used in the Scott Phantom *ONLY* the bass tones are *amplified* or made louder, and *has no effect whatsoever on the higher frequencies*, so that the spoken voice retains its clearness and naturalness even though you advance the Bass Control to maximum. Music lovers who appreciate a full *natural* bass will find this one of the most delightful features of the Scott Phantom.

**Special High Fidelity Loud Speaker System.** The new Scott Phantom is equipped with a highly developed loudspeaker system which has been especially designed for the high fidelity characteristics of this remarkable instrument. It incorporates several principles used in the design of the costliest motion picture sound systems which are Custom Built for the acoustical properties of the theatres in which they are installed. This special Scott sound system consists of *two separate* projection cones, and as a result the distribution of sound is considerably better than when reproduced thru the ordinary type of loudspeaker.

**Power Output 16 Watts.** The Power Output of a radio receiver is of the utmost importance to those who realize that fine music when heard without its dynamic proportions accurately reproduced, is about as enjoyable as if the "tune" were whistled. Fortissimos or loud passages must have power, but no lover of fine music can tolerate having such a forceful passage ruined by fuzziness of tone because the loudspeaker and radio "can't take it." The Power Output (handling capacity without distortion) of the Scott Phantom is 13 watts undistorted with a peak output of 16 watts—about 300% greater than that of the average radio—assuring the discriminating music lover ample reserve power to smoothly reproduce all

dynamic peaks which occur on both radio programs and on the finer records.

**Inverse Feedback System.** To compensate for loudspeaker deficiencies, we have built into the Scott Phantom a perfected Inverse Feedback System—a development that is of greatest importance to those who demand a full, round, and *natural* bass.

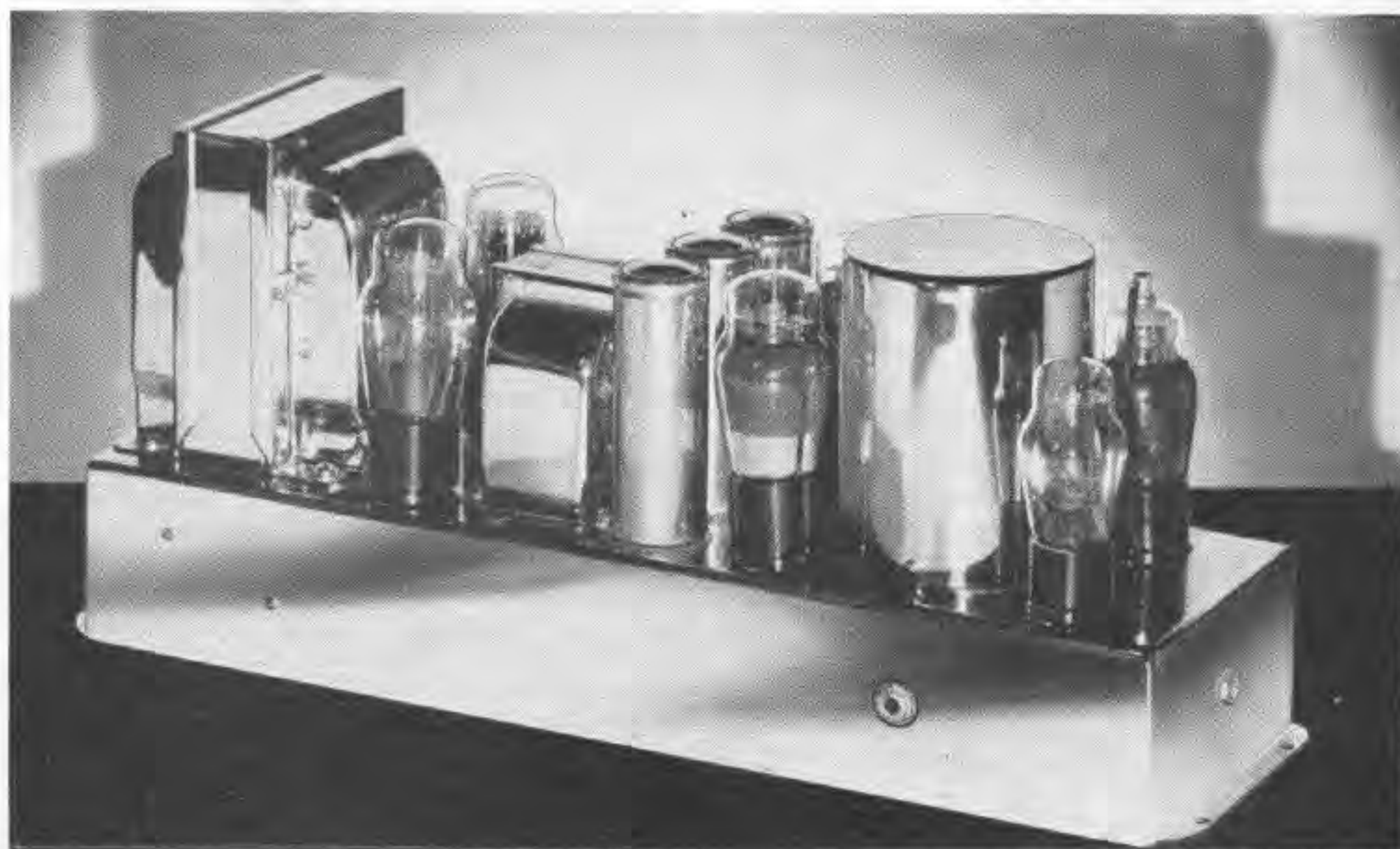
**Needle Scratch Suppressed on Records.** In the Scott Phantom we have incorporated a circuit (Patents Applied For) which is automatically switched in when you change over from radio broadcasts to records of your own selection that *effectively removes needle scratch at low volumes without in any way altering the fidelity at normal volumes.*

**Terminals for Record Player.** Unlike many ordinary receivers, a highly developed Phonograph Input System is incorporated in the Scott Phantom so that a record player (either manual or automatic) may be instantly connected.

**Both Chassis Finished in Gleaming Chromium** (instead of the commonly used cadmium) for maximum protection from salt air, dampness, or extreme climatic conditions.

**Guaranteed Five Years.** Hundreds of Scott receivers over 10 years old are still in daily service and greatly prized by their owners in every part of the civilized world for the perfect reception they are still obtaining with them. As proof of the fact that a custom built Scott Phantom is virtually trouble-proof, every part (except tubes which are guaranteed by the manufacturer) is guaranteed against defects for FIVE YEARS, instead of the usual 90 days adopted as standard by the radio industry.

**30 Day Trial in Your Home.** There is one important difference between a Custom Built Scott Phantom and other merchandise made to order. This difference is that you are not required to keep the Scott Phantom unless it fully measures up to your expectations. When it is delivered and installed in your home, listen to it critically for 30 days, and if possible try to arrange a side-by-side test with any other make of radio receiver. If the Scott Phantom does not outperform any other radio you test against it, *or if you are not completely satisfied in every respect*—it may be returned to the Laboratory any time within 30 days after delivery, and I will promptly and cheerfully refund the purchase price.



**The Scott Phantom Power Amplifier**



# NEW SCOTT DOUBLE-DOUBLET ANTENNA SYSTEM DESCRIBED

**BRINGS IN STATIONS WITH LOUD SPEAKER VOLUME INAUDIBLE WHEN RECEIVER IS SWITCHED TO OTHER ANTENNAE—WITH IMPROVED SCOTT SUPERSHIELD ANTENNA COUPLING SYSTEM, PRACTICALLY ELIMINATES "MAN MADE" STATIC AND ELECTRICAL INTERFERENCE ON BOTH SHORT-WAVES AND BROADCAST BAND.**

Few owners of radio receivers fully realize the very important part the antenna plays in securing the strongest and quietest reception from distant "hard-to-get" stations. To most people, the antenna is simply a piece of wire strung over the roof or around the rafters in the attic, and probably not more than one in a thousand actually realize that it is possible, simply by substituting a modern efficient antenna system for the standard "L" type antenna (See Fig. No. 1), used with most receivers, to hear stations with good loud speaker volume, which at present cannot be received at all, or are so weak that they can barely be heard.

## Limitations of Ordinary Antenna

Often after the purchase of a Scott receiver, the new owner remarks: "I already have a very good antenna that can be hooked up to the Scott." However, when the Scott is installed we usually find that the "good" antenna is the ordinary single wire "L" type that has, in most cases, already been in use for a year or two, and is often not only corroded, but is so loose that part of it is touching the roof or rain gutter.

Further, programs which are at present blotted out by electrical interference or "man made" static (when received on the ordinary antenna) can be received on a well designed, efficient, modern noise-reducing antenna with the noise either entirely eliminated or so much reduced that the program can be received satisfactorily.

## Noise-Reducing Antennae

How is this done? Briefly, it is accomplished by designing the antenna so that it (1) pro-

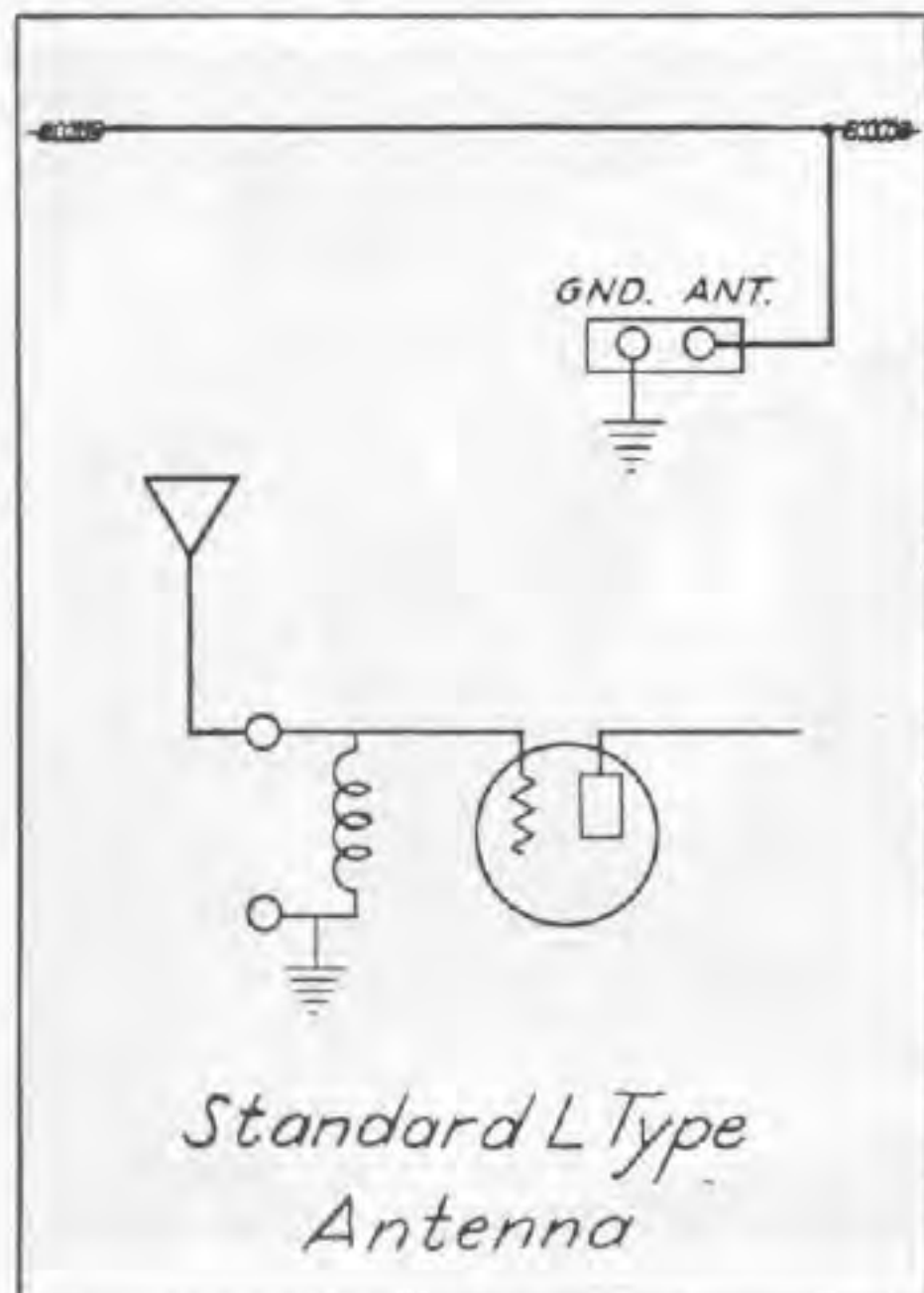


Fig. 1

vides maximum transfer of the desired signal from the flat top of the antenna to the receiver, and (2) by means of highly developed filter circuits at the antenna flat top and built into the receiver, local electrical interference picked up on the antenna lead-in is prevented from passing thru the receiver. This is accomplished by shorting the noise to the ground without affecting the signals from the station you are tuned to, which are passed through to the receiver so that they can be amplified and heard on your loud speaker.

The circuit drawings on this and following pages illustrate the successive developments of special Scott antenna for allwave receivers from the first Tuned Transmission type (Fig. No. 2) to the latest Scott Double-Doublet Antenna and Supershield Antenna Coupling System (Fig. No. 5). This new antenna system (although it is only 48' long and can, if necessary, be made shorter) is so highly efficient and feeds such a tremendously strong signal into the receiver, that to the best of my knowledge, NO RADIO RECEIVER OTHER THAN A CUSTOM BUILT SCOTT, WITH ITS HIGHLY DEVELOPED A. V. C. SYSTEM AND OTHER ADVANCED CIRCUITS, IS CAPABLE OF HANDLING THESE STRONG SIGNALS WITHOUT OVERLOADING.

For this reason, while I am quite willing to supply the new Scott Double-Doublet Antenna System for use with other receivers, it will be sold with the distinct understanding that the only guarantee given is that it will bring in weak distant stations with more volume and less noise from electrical interference than any other antenna that is tested against it, and with the warning that it is practically certain to overload any receiver other than a Custom Built Scott, causing cross-modulation on local or semi-distant stations.

## First Allwave Antenna

When our first Allwave receiver was introduced in 1928, we quickly discovered that when the standard single wire antenna (Fig. No. 1) was of correct length for maximum performance on the broadcast band, it was very inefficient when receiving shortwaves. For this reason we recommended to our first Scott Allwave owners the use of two separate antenna—a long one for the broadcast band, and a short one for the shortwaves.

However, as we became more familiar with reception from distant foreign countries, a serious defect in the ordinary straight wire antenna became very noticeable: the amount of electrical interference and noise generated from the ignition systems of passing automobiles often made the reception of distant shortwave stations quite impossible.

As it was not until 1932 (four years after the first Scott Allwave was introduced) that the tremendous possibilities of foreign reception were realized by the rest of the industry, it was necessary for us to pioneer in the field of special antenna for Allwave reception, for

like many other important developments in radio engineering, the Allwave receiver, designed to tune in not only stations on the broadcast band but also distant foreign stations on the shortwaves, was pioneered for four years by the Scott Research Laboratories before it was available from the production radio manufacturers.

## The Scott Doublet Antenna

Our research was carried on to develop an antenna system that (1) would provide the greatest possible efficiency in the transfer of the signal from the flat top of the antenna to the receiver, and (2) would reduce or eliminate noise and electrical interference so that programs from distant shortwave stations could be enjoyed.

In 1929 we introduced our first Doublet antenna, a tremendous improvement over the straight wire antenna. In 1930 a further improvement was developed, the Scott Tuned Transmission Antenna (Fig. No. 2) which used a separate unit for tuning the antenna. The antenna lead-in, instead of going directly into the antenna post on the receiver, first went to a separate antenna tuning unit located on top of the chassis, where plug-in coils could be inserted for each wave band. This unit was

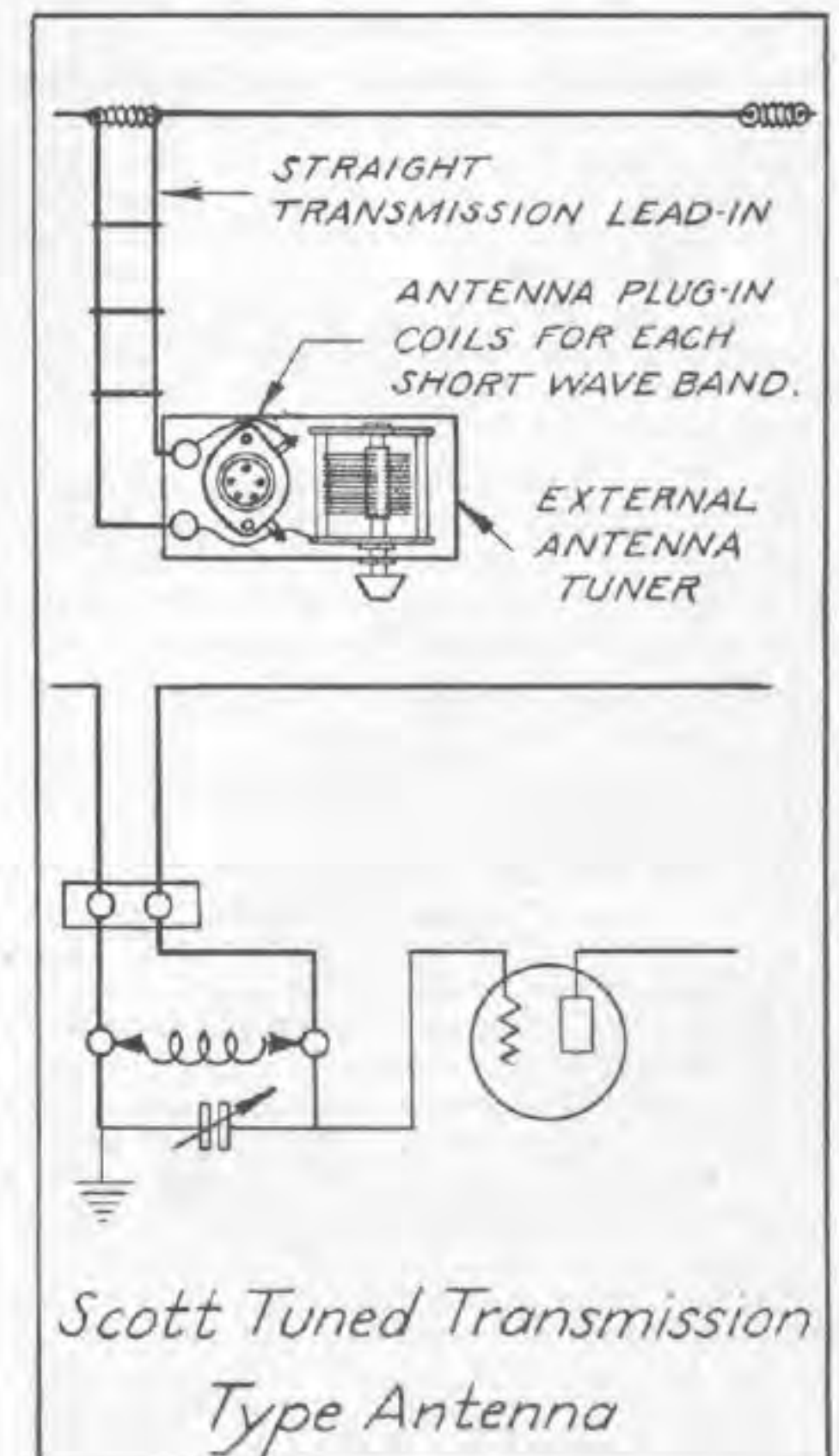


Fig. 2



tuned to the wave length of the station being received by means of a variable condenser.

### The Scott Tuned Transposed Transmission Antenna

In our research into antenna design, we discovered there were two sets of currents present in the lead-in; the desired signals or transverse currents picked up on the flat top of the antenna, and the undesirable interference, or longitudinal currents, caused by electrical apparatus and picked up on the two antenna lead-in wires.

We found that when we *transposed* the antenna lead-in wires, the "in phase" or longitudinal currents which were travelling both upward and downward in each wire simultaneously tended to oppose or cancel each other out, thereby greatly reducing the effects of electrical interference picked up on the antenna lead-in. Today this principle, which I believe was first pioneered in Allwave antenna design by the Scott Research Laboratories, is used in all noise reducing antennae.

This discovery was incorporated in the Scott Tuned Transposed Transmission Antenna (Fig. No. 3) and was a great improvement over the Scott Tuned Transmission type, for it eliminated the inconvenience of changing the plug-in coils for each wave band by using a tapped antenna coupler, which could be instantly adjusted for each wave band, and provided greater noise reduction on shortwaves.

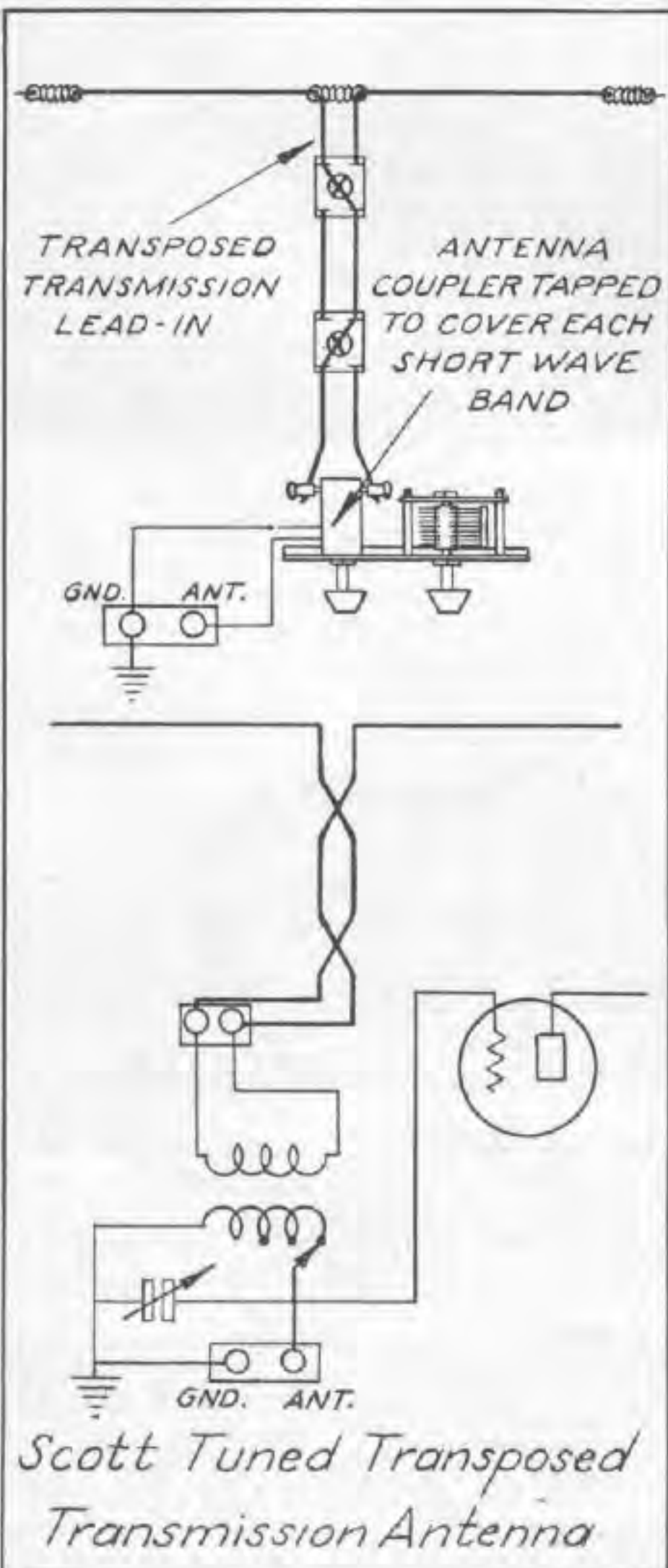


Fig. 3

### The Scott Super Antenna

However, it was still possible to secure better reception with two antenna, one long for the broadcast band, and the other short for the shortwave bands. This defect was not overcome until 1934 when the Scott Super Antenna was perfected (Fig. No. 4). In this design, a more uniform response and stronger signals were secured on all wave lengths by (1) using four arms in the antenna flat top instead of the two formerly used, (2) by using a twisted pair of lead-in wires and an external shielded coupler to couple the antenna into the receiver, the effects of electrical interference were still further reduced by shorting a large part of the interference to ground thru the electrostatic shield incorporated in the coupler, and (3) by designing the antenna input system for the receiver so that the antenna was automatically tuned to each wave length, eliminating the necessity for the antenna tuner previously used.

### The Scott Supershield Antenna Coupling System

The results secured with this system were so far ahead of those obtained with our previous antenna systems that it was apparently difficult to effect any further improvements. However, our research laboratories work on the theory that no matter how perfect anything *appears* to be, it can be improved. While the Scott Super Antenna was actually feeding a stronger signal into the receiver than our previous Tuned Transposed Transmission type, and greater noise reduction had been secured, we knew an appreciable portion of the desired signal picked up on the flat top of the antenna was lost in the shielded coupler. Therefore, research was directed along lines to find some way to eliminate or reduce not only the noise picked up on the antenna lead-in, but at the same time eliminate the shielded coupler thru which so much of the desired signal was being lost.

It required approximately two years of laboratory research to find the answer, but at last it was accomplished, and in 1936 the Scott Supershield Antenna Coupling System was announced. So efficient was this, that when compared with the ordinary type of antenna and the best of the other noise reducing antenna, IT EFFECTIVELY DOUBLED THE SENSITIVITY OR DISTANCE GETTING ABILITY OF THE RECEIVER, IMPROVED THE RATIO OF SIGNAL-TO-NOISE PICKED UP ON THE LEAD-IN BY A FACTOR OF APPROXIMATELY 100 TO 1, AND ENTIRELY ELIMINATED THE NECESSITY OF SWITCHING THE SHIELDED COUPLER TO SECURE MAXIMUM PERFORMANCE ON THE FOREIGN SHORTWAVE BANDS.

Perhaps the reader, by this time, is beginning to realize that there is more to the antenna of his receiver than a simple piece of wire. While it is true that reception *can* be obtained by throwing a piece of wire along the floor or running a length of wire around an attic, it is about as efficient as running an automobile with only 4 of its 6 cylinders working. While you can get a certain amount of speed with 2 cylinders "missing," you know you can get better performance and greater speed with all 6 cylinders working. In the same way, while you can get a certain amount of reception with your receiver connected to the ordinary single wire antenna, if the set is connected to an efficient modern antenna system, you will be able to bring in stations you have never heard before.

### The New Scott Super Double-Doublet Antenna

You have undoubtedly listened many times to a weak distant station when the noise created

by local electrical interference was so great that the signal could barely be heard thru it, then have moved the dial a fraction to a strong station on an adjacent channel and noticed that all, or at least a large portion of the noise disappeared. Why was the noise so noticeable on the weak station, but not heard at all (or perhaps was so low that it was not objectionable) on the strong station?

The answer to that question is the ratio of *Signal-to-Noise*. In the case of the weak station, the signal was weak *compared with the noise*. That is, the noise overpowered the signal. In the case of the powerful station, the exact opposite was true—the signal being so much stronger *compared with the noise*, it overpowered the noise.

We know that while a twisted antenna lead-in balances out a large amount of strong electrical interference, a certain amount may still reach the receiver. Therefore, if we can further increase the strength of the signal *before it comes down the lead-in*, we will automatically have a still greater ratio of Desired Signal to the Undesired Noise.

That is exactly what has been accomplished in the Scott Super Double-Doublet Antenna (See Fig. No. 5), for by its use the signals are sent down the lead-in so strong (as compared with the signal sent down the lead-in by the standard antenna) that the noise is reduced in most cases to negligible proportions.

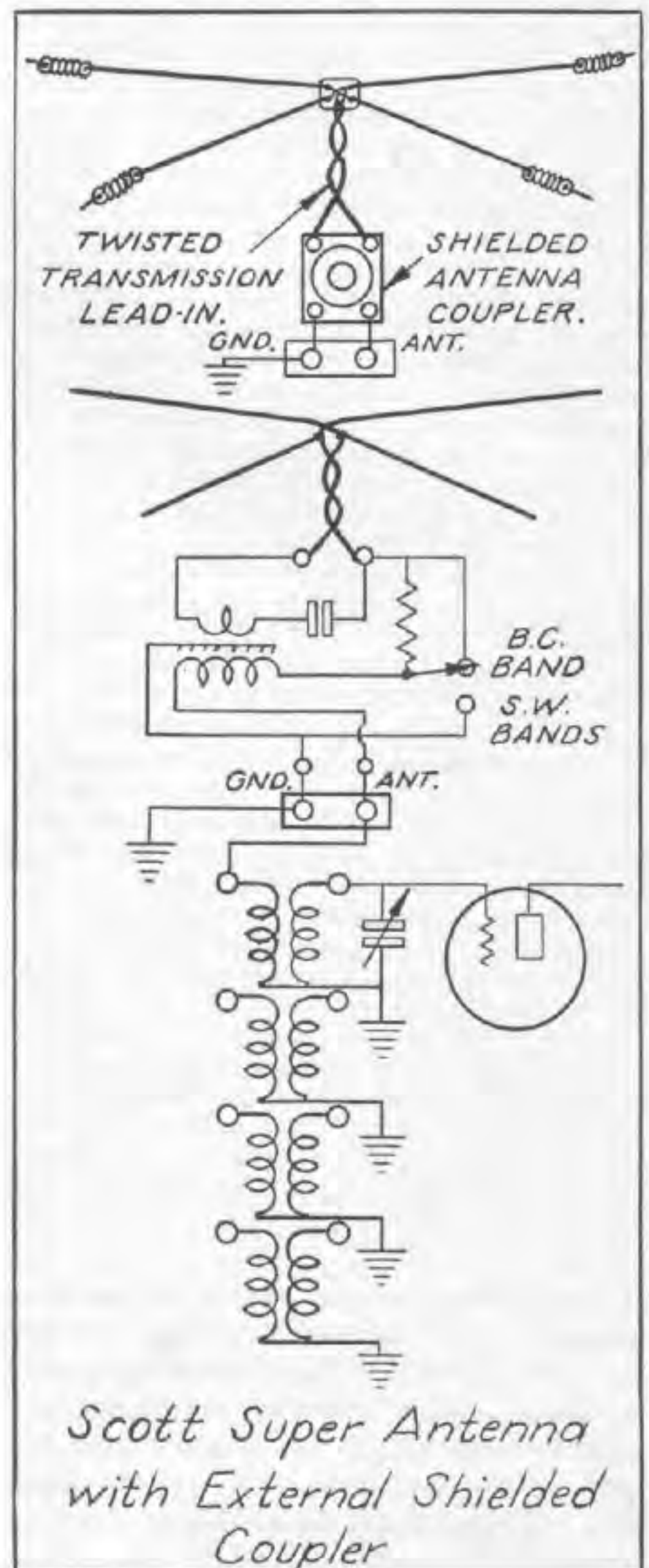


Fig. 4



## How Results Are Secured

How are these remarkable results obtained? It sounds very simple, but it has actually taken over a year's continuous experiment and research to develop the new antenna to its present state of efficiency. You have read previously how the signal strength from a distant station was increased when the antenna was tuned to that frequency, and in the new Scott Super Double-Doublet Antenna there is a special self-selecting filter unit located at the flat top of the antenna. It incorporates a number of coils and condensers which broadly tune the antenna to the principal shortwave and broadcast band frequencies. *This means that the signal strength sent down the antenna lead-in of this new antenna is approximately 8 times greater on the broadcast band than that transmitted from the ordinary antenna to the receiver, and it is this increased ratio of desired signal to undesired noise that is responsible for the quieter and stronger reception we secure from distant stations with the new antenna.*

### Scott Super Double-Doublet and Supershield Coupling—Today's Most Remarkable Antenna Combination

Efficient as the Scott Super Double-Doublet Antenna System is in reducing noise, in many locations it is impossible to entirely eliminate all noise, and a certain amount is fed into the receiver along with the signal, especially if the signal from the station being received is weak. This noise, which passes straight thru the ordinary receiver and is heard thru your speaker, is filtered out by the Scott Supershield Antenna Coupling System which further improves the ratio of Signal-To-Noise picked up on the lead-in by a factor of over 100 to 1. This is accomplished by (1) the complete elimination of capacity coupling between the antenna system and the first tuned circuit, (2) an exact magnetic balance which avoids the transfer of magnetic waves due to longitudinal currents picked up on the antenna lead-in, (3) an exact impedance match of the primary coil to antenna lead-in to develop maximum transfer of the magnetic field from the transverse currents in the antenna from the desired signal, and (4) the elimination of intermediate transformers at the end of the transmission line, (this is the external coupler attached to the antenna posts that is used with other noise reducing antenna) with their unavoidable loss of signal and relatively narrow wave band coverage.

The combination of the new Scott Super Double-Doublet Antenna system, which effectively boosts the signal sent down the lead-in on the broadcast band from 8 to 10 times over the conventional doublet, and the Scott Supershield Antenna Coupling system built into the Scott Super XII and the Scott Phantom receivers, represents, I believe, the most efficient noise reducing antenna system available today. While either the Scott Super XII or the Scott Phantom will provide satisfactory reception using any of the conventional antenna systems, it is strongly recommended that they be used with this new system, which will not only assure maximum signal strength on all stations, but also quieter reception, especially in noisy locations.

**A comparison of the circuit wiring diagrams of the Standard "L" Type Antenna and the new Scott Super Double-Doublet Antenna system, showing the tuned circuits in each before the signal enters the grid of the first tube, will quickly show why the new Scott Super Double-Doublet Antenna accomplishes results impossible with the standard antenna.**

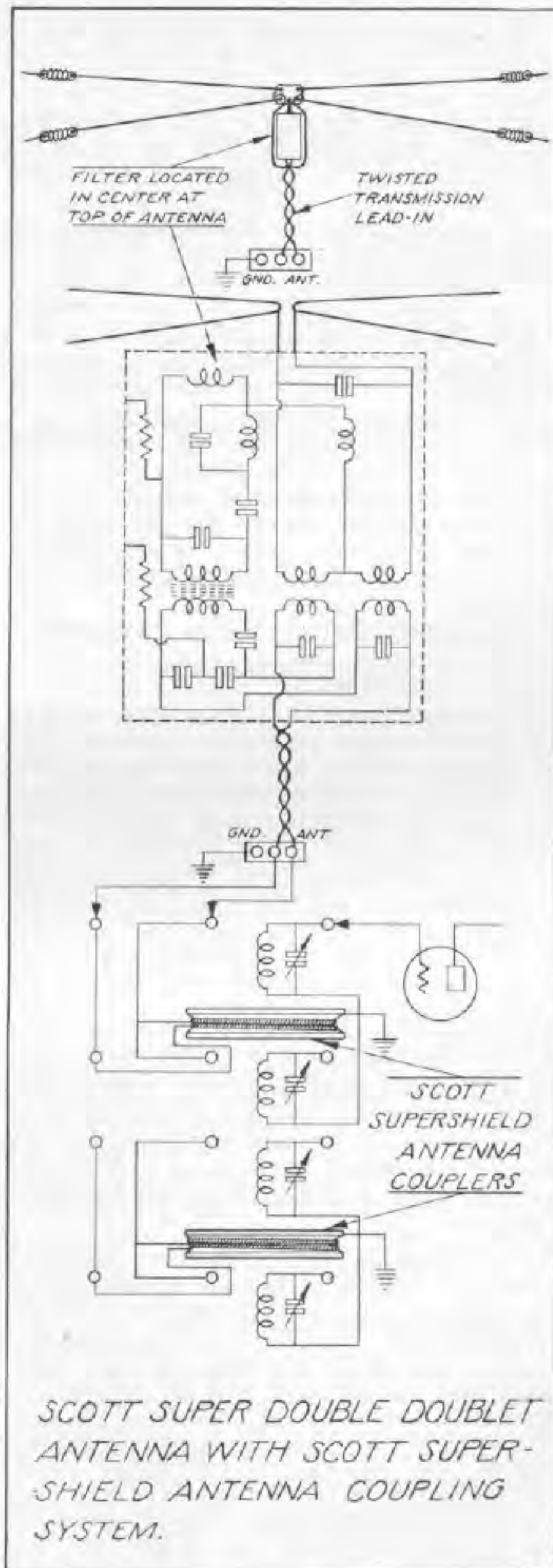
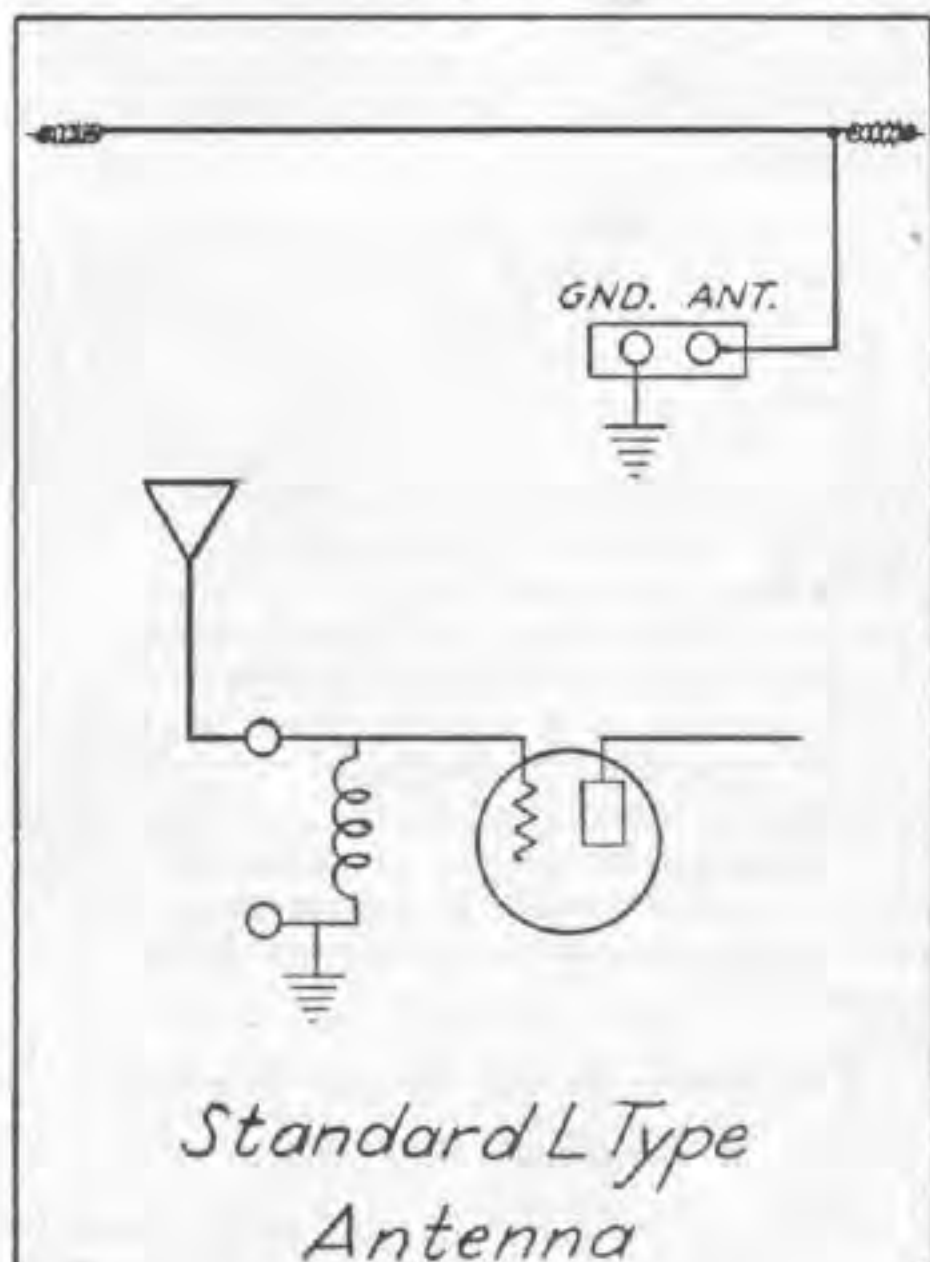
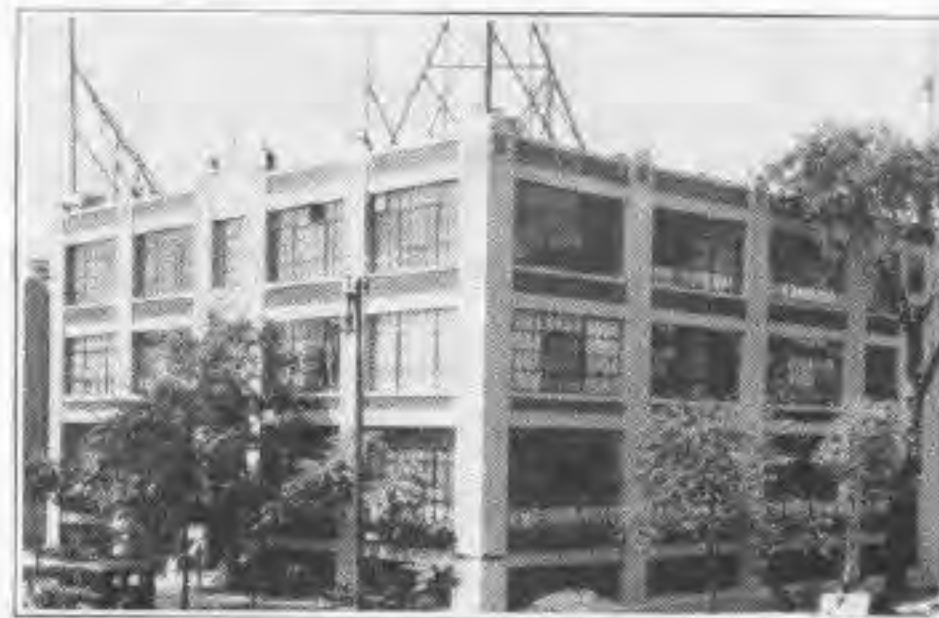


Fig. 5



## Where to See and Hear Scott Receivers

In order that you may hear the SCOTT RECEIVERS under actual home receiving conditions, we have several "Living Room" studios in the cities listed below.



**CHICAGO.** There are four fully equipped studios here at our main Laboratories. The address is 4450 North Ravenswood Avenue (1800 West) and the telephone number is Longbeach 5172.



**NEW YORK CITY.** The Scott studio is located in the International Building, Rockefeller Center, at 630 Fifth Avenue on the 33rd floor, Suite 3362. Telephone Circle 7-0574.



**LOS ANGELES.** This beautiful Scott Salon is located at 115 North Robertson Boulevard (1½ blocks north of Third Street and ½ block south of Beverly Boulevard). Telephone Crestview 19158 or Bradshaw 23448.

**DETROIT.** This demonstration studio, typical of the average home, is conveniently accessible from downtown Detroit. It is located at 825 Webb Avenue, and the telephone number is Townsend 8-0147.

**BUFFALO.** The comfortably furnished Buffalo studio is at 41 Leonard Street, and the telephone number is Parkside 1489.



# A PERSONAL MESSAGE TO THOSE WHO WANT SOMETHING BETTER AND DIFFERENT IN RECORD REPRODUCTION

If you have never heard fine records reproduced by *Professional-Type Laboratory Equipment*, you may have decided that you do not particularly care for recorded music because (1) there is an annoying needle scratch; (2) the sound or "tone" is inferior to that of radio broadcast; (3) when listening at low or normal volume, only part of the music comes from the loudspeaker when loud or moderately loud passages occur on the record—the rest of the sound blasts from the pickup and needle in highly distorted form; and (4) it is very inconvenient to walk over to the machine every 5 minutes to remove the record just played and replace it with another one you wish to hear.

*Below you will find how these problems were solved with highly specialized equipment that was perfected after years of intensive research.*

## Needle Scratch Removed

Scott Needle Scratch Suppression is a development which enables you to play records through the loudspeaker of a Scott Phantom with the objectionable needle scratch removed. Unlike recently introduced systems that cut off the higher overtones (upon which the timbre of musical instruments and the intelligibility of speech depends), our method of eliminating record scratch has no effect on the fidelity at normal volumes. Scott Needle Scratch Suppression (Scott Patents Applied For) is a development of the Scott Research Laboratories, and will not be found in mass-production combinations available to the public.

## Three Times Greater Fidelity

Up until a short time ago, it was not possible to successfully record tones lower than about 100 cycles per second, nor higher than approximately 4,000 cycles. Today, the finer high fidelity records made in the United States have a frequency range of from about 30 to 8,500 cycles—three times that of the older records! But when these records are played through the average radio whose frequency range extends only from 80 to 4,500 cycles, most of the realism is obviously lost. The new Scott radio receivers have a fidelity range of from 30 to 8,500 cycles, and we believe they are the only instruments of their kind which completely reproduce every overtone now being recorded.

*As a matter of fact, I will promptly refund your money if the reproduction of a High Fidelity record on a new Scott is not as good or better than the finest broadcast you can tune in on the radio! If guests should arrive in your home while a record is playing, they will invariably assume that you are listening to an unusually fine radio broadcast.*

## Acoustical Feedback Eliminated

Scott cabinets are so designed that the record player is suspended on live sponge rubber and *acoustically sealed* in its compartment, thereby eliminating the shrill metallic reproduction ordinarily heard direct from the needle or pickup on loud and moderately loud passages. The voice or music comes ONLY from the loudspeaker, no matter how far you have reduced the volume. When the record player compartment is closed, there is no detectable needle buzz



**E. H. Scott, Designer and Custom-Builder of Quality Radio Receivers and Sound Reproducers for Nearly Fifteen Years**



**Open View Showing Scott Phantom and Automatic Record Changer in New Adam Console**

even on heavily recorded passages. The Tone Balanced Volume Control System incorporated in Scott receivers also plays an important part in securing this beautiful reproduction in miniature, for at low volume it *automatically* amplifies the treble and bass tones which ordinarily drop out of hearing, or are greatly subdued when volume is reduced.

## Wide Angle Sound Diffusion

The Scott Phantom loudspeaker system incorporates several principles of design used in the costliest motion picture sound systems, and this highly developed method of sound distribution results in what may be described as a stereoscopic effect. Instead of coming to you from a small area within the cabinet, the sound is properly diffused or spread out, and seems to have third dimension or depth—the same as when you hear an orchestra in a concert hall. Musical instruments stand out in relief more clearly, giving the illusion of nearness and distance.

## More Volume and Reserve Power

The ordinary radio has a handling capacity (Power Output) of only about 3 or 4 watts, undistorted, and on full orchestral passages—even when the volume control is in a normal position—the loudspeaker "spills over," ruining the quality and force of the passage. The Power Output of Scott amplifiers is from 9 to 35 watts so that strong dynamic peaks can be easily handled with smoothness and lack of distortion.

## Records Automatically Changed

As for removing and replacing records by hand every few minutes, I refer you to the following pages which explain how completely this one remaining problem has been solved with a new type of silent automatic instrument that provides nearly an hour of continuous entertainment.

No education is complete unless it includes an intimate knowledge of the works of Mozart, Bach, Beethoven, and the other great masters. To really enjoy such music, and to discuss it intelligently with others, requires *constant re-hearing*. Unfortunately, many of us have neither the money nor the opportunity to spend a lifetime at concert and operatic performances, but the rare pleasure of being able to choose this music whenever we want it, and the privilege of hearing it as often as we like, is possible with recorded music. For those who want a really comprehensive knowledge of the world's finest music, a record player is indispensable.





# The New Scott Automatic Record Changer

**Record Capacity from 1 to 8.** The chief purpose of this instrument is to play any number of records up to 8 automatically without stopping, and in the sequence you wish, so that they will be reproduced through the loudspeaker of your radio.

**Advanced Design Fully Patented.** It incorporates nearly 50 distinct features, many of which are patented and therefore not found in any other instrument of its kind. When used with a Scott radio, the combination is a complete electric record player of very advanced type.

**Nearly an Hour of Continuous Entertainment.** Merely load the changer with your selection of records, throw a switch, and they will then be played through on one side without further attention. (NOTE: The finest High Fidelity recordings of symphonies, operas, and other extended works covering several records may now be purchased for automatic operation. That is, the first half of the composition is on the top side of the successive records, while the last half is on the under side of the same records.)

**Easy to Operate.** The simplicity with which the Scott Automatic Record Changer can be operated is of great importance to those having no interest in things mechanical, for it is much easier to operate than the average radio receiver. Complete instructions accompany each machine.

**Changing Process Entirely Automatic.** Each record, in turn, gently slides down an extended shaft, stops momentarily on an air cushion, and settles on the turntable which is already revolving at the correct speed. The pickup arm then swings in and is slowly lowered by the machine so that the needle comes in contact with the blank edge of the record. Next, the pickup is given an automatic bias which guides the needle into the first groove of the record.

When the first record has been played, the pickup is automatically lifted from the record and returned to its starting position. The next record is then automatically placed on top of the one just played, and the entire process repeated until all records in the changer have been played.

**Records Quickly Changed.** The instrument takes only about 8 seconds to change records. Thus, the continuity of an extended musical performance is satisfactorily maintained, yet the "intermission" is just long enough to permit momentary relaxation between records.

**Silent Operation.** During the playing of a record, the changing mechanism is idle—there is nothing in operation except the turntable motor which is so quiet that it cannot be heard even if you put your ear within an inch of it. When the changing of records is in progress, one must listen intently to realize that the mechanism is operating at all.

**Careful Handling of Records.** Every operation is essentially positive, yet there is no strain on your records. The playing surface of a record is never in sliding contact with the mechanism at any time. The loading lever, which transfers each record from the spindle to the turntable, moves the record by its outer edge so that it cannot be scratched.

**No Section of Record Omitted.** When the instrument is in operation, it will start at the beginning of each record and play all the way through without skipping any part of the selection or damaging the record in any way.

**Perfected Automatic Stop.** The machine stops and switches off the current when the last record has been played, but not until the mechanism has lifted the pickup and needle from the record. Thus, damage to the record is avoided, and there is no whine when the instrument is again started in operation. The machine can, of course, be stopped at any time before all records in the changer have been played by merely moving a lever.

**Plays Either Ten-inch or Twelve-inch Records.** The turn of a knob enables you to play either 10" or 12" records at will. Nearly all records of "popular music" are 10" discs, while the more serious music may be secured on 12" records. Since you would hardly care to mix "swing" records with those of Beethoven—or vice versa—no complicated provision is made for mixing the two sizes together.

**Automatic Rejection.** By means of another lever you can instantly reject any record at any time during the playing. The instrument

lifts the pickup, swings it back to the starting position, and then automatically plays the next record.

**Complete Acoustical Control.** The volume control on the radio allows you to increase or decrease the volume from records to suit your taste and the acoustical properties of your room. The Variable Treble and Bass Controls also serve exactly the same purpose as they do on broadcasts, enabling you to intermix any degree of treble and bass. The flexibility of these two acoustical controls is one reason why record reproduction is in every way equal to the finest studio broadcast from a high quality radio station.

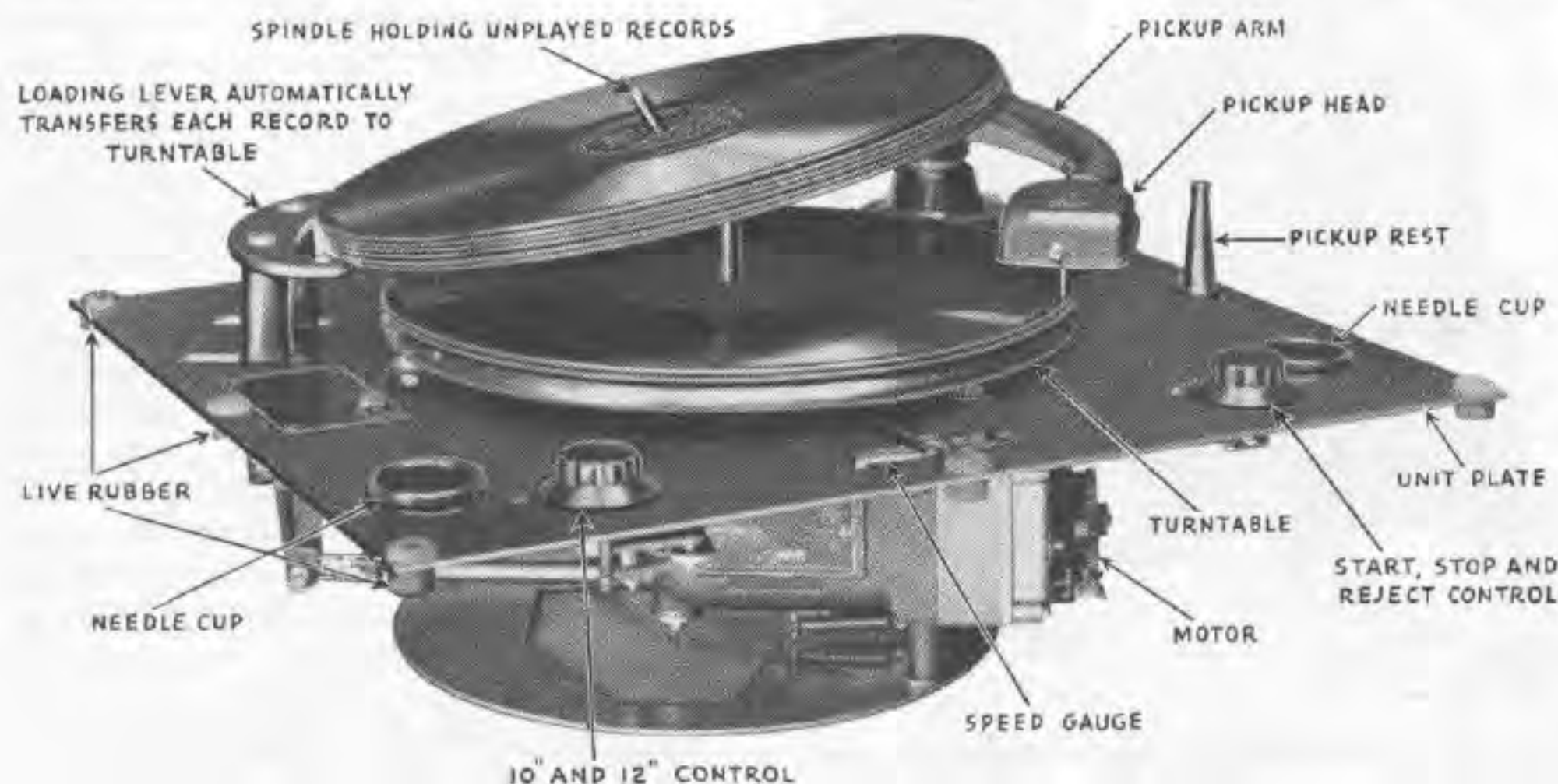
**Single Record Operation.** Whenever you wish, the Scott Automatic Record Changer will play only one side of a single record and then automatically stop, the same as any single-record machine.

**Professional-Type Pickup.** The purpose of a pickup is to track the needle in the record groove, and to convert the delicate mechanical vibrations on this groove into electrical impulses so that they may be reproduced through the radio. From a musical standpoint, the pickup is the most important unit of any record playing mechanism, for no matter how fine the radio may be, it can reproduce only what is transmitted to it by the pickup. The Scott Automatic Record Changer is equipped with a very fine High Fidelity pickup of the same professional type used by many large broadcasting stations, and is especially designed to our own laboratory specifications.

**Finer Reproduction of Higher Frequencies.** We believe the Scott pickup is, by a considerable margin, superior to any other type available today, for it reproduces every tone, overtone, and transient of the latest High Fidelity records. Unlike ordinary pickups, there is no straining for volume at any time, and the result is a firm definition on the higher frequencies. These tones in the upper register are round, clean-cut, and natural—without the piercing, thin, or shrill quality imparted to them by cheaply made pickups.

**Increased Bass Range.** Another advantage of the specially designed Scott pickup is that it provides a richer and more distinct bass. The frequency range of a Scott radio extends down to 30 cycles, and our tests show that the pickup used in the Scott Automatic Record Changer is the only type which we believe will satisfactorily reproduce this greatly increased bass range. Each bass note, instead of being a flat colorless thud, is a solid suave tone having definite pitch and timbre. The highly developed Inverse Feedback System incorporated in the Scott Phantom amplifier eliminates the usual loose fluttering bass reproduction caused by the speaker cone vibrating after the note has actually ceased.

**More Uniform Response.** Most pickups give good reproduction only within a certain frequency range. That is, the response is not uniform and frequency characteristics may be sharply accentuated at several points. The Scott pickup (costing several times as much as the ordinary crystal type) has a virtually flat response throughout its range, and the final result is what we believe to be the most faithful overall reproduction of recorded voice and music ever achieved. On even large complex orchestral works, each musical in-



The Scott Automatic Record Changer



strument is clearly defined and has its own characteristic timbre.

**No Amplitude Distortion.** Another factor contributing toward more enjoyable record reproduction is that the pickup is free from resonance due to the very small mass of armature and the special method of damping which gives linear control over large and small amplitudes.

**Not Affected by Temperature.** Sudden changes in temperature may completely ruin the ordinary type of pickup or seriously impair its reproduction. The Scott pickup is so designed that even a sudden and radical rise or drop in temperature has no effect on it.

**Plays Entire Capacity without Change of Needle.** A pickup weighing less than about 3 ounces is not heavy enough to force the needle firmly into the bottom of the record groove, and the result is faulty or incomplete reproduction. On the other hand, a much heavier pickup causes the needle to bear down on the record with too much force, and if undue wear on record grooves is to be avoided, the needle must be replaced after playing only 2 or 3 sides. The Scott pickup weighs just 3½ ounces and this comparatively light weight not only reduces surface noise and record wear to a minimum, but also enables you to play the entire capacity of the changer without once changing the needle.

**Needles Quickly Changed.** The Scott pickup head is of the swivel type, turning on a 180 degree arc, so that needles may be quickly changed by simply turning it right-side up and inserting the needle.

**Handles Any Type of Needle.** Ever since the introduction of modern needles, there have been two kinds of enthusiasts—those who prefer metallic type needles and those who prefer the non-metallic type. Each type of needle has its advantages, but the heavy pickup heads used in most record changers instantly smash delicate non-metallic points. The Scott Automatic Record Changer is so designed that there is negligible weight on the needle at all times, and therefore practically any type of needle may be used.

**Minimum Wear on Records.** The curved arm which moves the pickup is scientifically corrected for weight compensation and is mounted on a ball bearing pivot, thus reducing friction on records to an absolute minimum.

**97% Perfect Tracking.** The term "tracking error" refers to the alignment of the needle as it moves across the record while playing. If the tracking error is more than about 5%, reproduction is poor, needle scratch is increased, and the record grooves are badly pushed out of shape by the needle. The pickup arms used in many record players have large tracking errors, sometimes 25% or more. *The Scott pickup arm centers the needle directly into the record groove, instead of pulling on either side, and has 97% perfect tracking anywhere on the record—a tracking error of less than 3%.* This means that the needle remains parallel within 3% to the groove of the record from beginning to end, thus preventing the needle from riding up and down on the wall of the groove. Only with the needle in this position is the listener assured of faithful reproduction and negligible wear on his record.

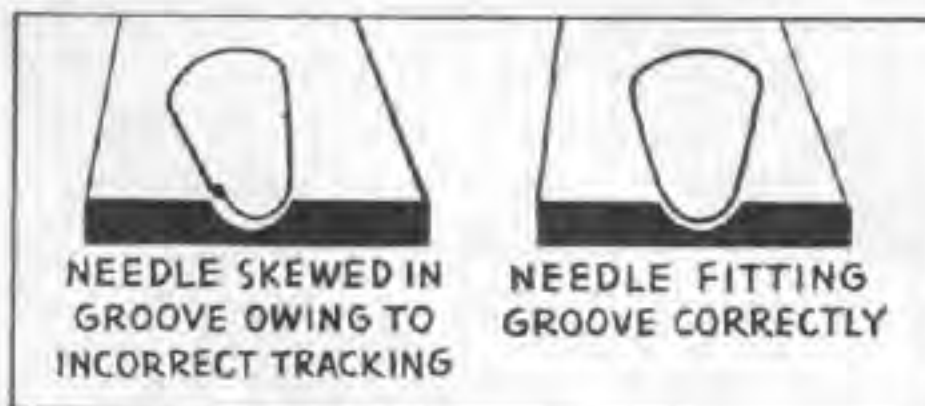
**Laboratory-Type Induction Motor.** The smooth-running, heavy duty motor is completely enclosed and dust proof. The absence of "wows," waves, and distorting jerks so common with inexpensive motors is the delight of every user, for this unusually powerful motor and its Patented governor incorporate features which enable it to hold long delicate passages perfectly steady.

**Built-in Speed Gauge.** The motor has a wide range of speed regulation from 60 to 90 revolutions per minute (the old style 33⅓ R.P.M. records have been discontinued by both Victor

and Columbia), enabling you to increase or retard the tempo of dance selections to suit your individual preference. The quality obtainable from recordings of more serious worth, however, depends upon whether the turntable is revolving at *precisely* the correct speed. To guard against playing such records too fast or too slow, the Scott Automatic Record Changer is equipped with a precision built-in gauge whereby you can frequently check to see that the turntable is revolving at exactly the correct speed (78 revolutions per minute).

**Operation Not Confined to Only One or Two Makes of Records.** You can play records of any make, domestic or foreign, having the usual spiral or eccentric run-off grooves found in all modern records. Since there are over 40 large recording studios now in existence, records are not all of exactly the same thickness, and a changer which handles only a few "standard" makes seriously limits your selection of the most desirable recording of any given composition.

**Home Recordings.** A wide-spread modern custom is to send a record of your voice to friends or relatives instead of writing a letter. Such records, if they are cut from the outside in, may be played manually, and voice is so accurately reproduced in every detail that the speaker sounds as if he were in your own room.



**Live Sponge-Rubber Mounting.** Generally, the metal base of a record player is tightly screwed down to a shelf in the radio cabinet. When the cabinet vibrates on comparatively loud musical passages, the needle will bounce on the record, injuring its delicate groove. The metal base of the Scott Automatic Record Changer is never in direct contact with any part of the cabinet, for it is mounted on live sponge-rubber to prevent transference of vibrations from cabinet to changer, or vice versa.

**Complete Hum Filtration.** By means of special shielding precautions, we have succeeded in completely filtering out the objectionable hum picked up and amplified by poorly designed record players. *With Scott equipment you hear ONLY what was actually recorded—all extraneous noises have been eliminated.*

**Laboratory Matching.** One of the chief reasons why record reproduction is so perfect that listeners can never be sure whether they are hearing radio or records is because the instrument is scientifically matched to the receiver.

**Rugged Construction.** The machine is so ruggedly built of such fine quality parts that we ship it to every part of the world—and guarantee that when it arrives at its destination every part will be in perfect condition. The construction and design of the instrument are such that it is not affected by shocks or vibration, and the various movements are basically quite simple. As the machine has no fragile parts, it may be depended upon to give years of trouble-free service. The number of moving parts has been kept to a minimum, thus further contributing to the machine's simplicity and fool-proof operation. No expense has been spared to make it one of the most perfectly engineered units of its kind ever offered to the public.

**Minimum Maintenance.** All bearings are of the oil-retaining type and with average use require lubrication only once every 3 months. All oil holes are easily accessible when the

turntable is lifted off. Every machine is thoroughly oiled and tested before it leaves our laboratories.

**No Extras Necessary.** If you own a Scott radio which was built since 1931 (except our early Imperial models), no transformers, no extra parts, and no changes in the wiring of your receiver are required, for it already incorporates a highly developed Phono Input System. The Scott Automatic Record Changer may be instantly connected to the two terminals provided on the chassis.

**Perfect Alignment.** The complete mechanism is bolted to a heavy cast-iron frame underneath the unit plate to prevent misalignment taking place either during construction or in actual operation after the instrument has left our laboratories. The position of each component part has been carefully calculated so that the entire mechanism is rigid and correctly balanced.

**Compact Size.** The Scott Automatic Record Changer is one of the most compact machines on the market, and we have a number of cabinets that accommodate both the changer and the radio. (See description on pages 9, 12 of the new Adam.) The base of the changer is 16" long by 14" wide, and with a full record supply, the mechanism extends only 5" above and 5" below this mounting plate.

**Available in Portable Cabinet.** If your present radio cabinet does not have room for the changer, we can furnish a neat walnut-finish cabinet 16½" wide, 18½" long, and 11½" high. When its hinged lid is closed, the changer is acoustically sealed. Price of cabinet only is \$11.95 if Scott Automatic Record Changer is included with order.

**Cost Less Than ½c Per Hour.** The current consumption is only about 15 watts which means that the cost of running the changer is negligible. It will play approximately 40 hours on less than 1 kilowatt of electricity which costs from 5c to 10c.

**Remote Control.** At moderate cost, we can motorize both the Scott radio and the changer so that you can control their operation from a small Keyboard on the arm of your favorite chair, the dinner table, desk, or any convenient point in your home. By merely pressing successive keys you can, *without rising from your chair*, accomplish the following: (1) turn on the current and start the changer, (2) raise and lower the volume, (3) reject any record that is playing, (4) switch from records to 8 different radio stations of your choice, then instantly back to the same record or to the next one in the changer., (5) stop the changer and turn off the current.

**Reasonably Priced.** After studying the many features of the Scott Automatic Record Changer, you may conclude that the price of this precision instrument is perhaps prohibitive. Fortunately, such is not the case, for your net price complete is only \$87.50.

**Money-Back Guarantee.** *Today—thanks to the almost incredible development of recent months—recorded music is one of the most enjoyable forms of home entertainment when heard through Scott professional-type laboratory equipment described on these pages. Include the marvelous Scott Automatic Record Changer with your order, and if after 30 days any member of your family allows you to return it to me, I will cheerfully send you my check for the money you paid!*

### Scott Single-Record Player

The instrument described above may also be purchased *without* the automatic changing feature. It incorporates all other features described above including the same pickup, motor, and turntable. This machine will play through a single record and then automatically stop. Price complete, ready for mounting in cabinet \$29.50.



# The Scott News

Published Frequently at Chicago by

E. H. SCOTT RADIO LABORATORIES  
Chicago

E. H. SCOTT, Editor

## Now, for the First Time\*\*\*

There are hundreds of people who have written me saying, "If I could only buy a Custom Built Scott for about \$100.00 I would order one at once." In this issue of the "News" comes the first announcement of such a receiver which I have been developing for over 12 months.

When you study its specifications you will find that this new Scott has incorporated in it the *same* fine tone or fidelity range, the *same* degree of Selectivity, the *same* tremendous Sensitivity that has enabled Scott receivers to establish their famous Verified Long Distance Reception Records, the *same* high quality parts that are used in the larger higher powered models, and the *same* laboratory workmanship that has made Scott receivers the universal choice of those to whom money is no object.

There are thousands who want the finest radio receiver it is possible to buy, but many of these prospective purchasers do not require the higher power and the extra features incorporated in the larger Scott Phantom. This has enabled me to eliminate several tubes and design the new Scott Super XII on one compact base. You have 30 days to prove to yourself that this remarkable new instrument is a SCOTT in every sense of the word—one that you will be proud to own, and one that I am proud to build.

World events during the past few days have taken a serious turn, and although war in Europe may mean almost immediate industrial prosperity for the United States, I am sure that every one of us hope that the matter will be settled peaceably and without bloodshed. History is now in the making, but unfortunately we more often than not get only a garbled prejudiced version of world events through the newspapers.

The only reliable guide today is to hear *each* government's version of world events. Such reports may be heard in *English* direct from London, Prague, Paris, Berlin, and various other capitals before our newspaper "experts" have had a chance to distort and change their import. With *all* sides of a question, instead of just one, you have a much clearer picture of international developments than the average man-on-the-street who must rely on re-varnished, disguised, and often downright false information.

Today Scott radio receivers are widely used by foreign embassies, consulates, and diplomatic corps to maintain constant and immediate contact with foreign developments. Among owners of Scott receivers are such men as His Excellency, the President of Czechoslovakia; J. S. Kralick, American Consul General, Prague, Czechoslovakia; Jean Coutzalexis, Minister of Greece at Prague, Czechoslovakia; Dr. Vojtech Mastny, Minister of Czechoslovakia at Berlin; Bernardo Attolico, Italian Ambassador to Germany; Charles M. Hathaway, American Consul General at Munich, Germany; L. N. di Villarosa, Admiral of the Royal Italian Navy; Charles A. Livengood, U. S. Commercial Attache at Rome; Joseph Clark Grew, American Ambassador to Japan at Tokyo; Dr. Thomas LaBreton, Ambassador of Argentine, and Dr. Castillo Najera, Ambassador of Mexico to France, both at Paris; His Majesty, the King of Belgium; and many other famous statesmen and government officials in all parts of the world.

Once you have actually seen and heard one of the new Scott receivers described in this "News," I feel confident you will immediately agree that a Scott is by a wide margin unquestionably the World's Finest Custom Built Radio.



## THE NEW ADAM CONSOLE

A luxurious custom cabinet especially designed for both the radio and record changer. The top is in three sections: The left side lifts to allow access to the radio; the smaller center section is stationary, providing a place for setting decorative ornaments; the right side lifts to provide access to the record changer. The woods are American Walnut and Hawaiian Koa wood veneers, beautifully blended in color and semi-dull rubbed finish. Can be furnished to special order in genuine Mahogany throughout.

**Ideal Size.** This fine cabinet is extremely well proportioned, measuring only 47" long, 18" deep, and 36" high. By an unique arrangement of the various parts of the instrument, the cabinet is ideal in size for those living in smaller homes and apartments. With all its compactness, it is entirely appropriate for even the largest rooms.

**Many Acoustical Refinements.** The Adam was finally evolved after a comprehensive series of acoustical tests, and the resulting reproduction is infinitely better than anything we have previously heard in radio or recorded music. Increased baffle area, improved sound chamber design, absolute solidity of construction, and several other innovations in cabinet building are responsible for this greatly increased realism of voice and music. *It is as much a Laboratory Product as the two instruments it houses.*

**May be Played with Doors Closed.** Unless you open the speaker compartment doors on ordinary radio cabinets, speech is deep or boomy and music is poorly reproduced. By turning the Bass control all the way to the left, and the High Fidelity control all the way to the right,

good reproduction may be enjoyed at normal volume even though the speaker compartment doors of the Adam are completely closed.

Special hinges automatically hold the doors in any desired position, and prevent them from swinging open or closed if the cabinet should be placed on an uneven floor. The door handles are installed in such a way as to eliminate the usual unsightly screw heads on the inside.

**Authentic Styling.** The Adam takes on the appearance of a fine living room piece with no appearance of a radio. Note the fine hand carving and authentic Adam motifs such as the oval patera, fluted posts, typical Adam decoration on the legs, and the delicate Adam knobs in English Antique finish.

Your interior decorator will substantiate the fact that the design of this cabinet is such that it is authentic for mixing with practically any period except ultramoderne or such exceptionally large or seldom used designs as Louis XIV and Tudor. It is ideal for rooms having Chippendale, Hepplewhite, Duncan Phyfe, Adam, Louis XV, Sheraton, Louis XVI, Regency, Empire, and other periods of usual scale. *Unlike conventional radio cabinets, the Adam is also ideal for living rooms not furnished with traditional-type furniture.*

**Storage Space for Over 100 Records.** The compartment in the lower left is for 10" records and a total of approximately 60 records in albums can be fit into this space. The compartment at right is for a similar number of 12" records and their albums. Thus, a total of about 120 records may be conveniently stored out of sight, albums and all, in these two compartments.

**THE E. H. SCOTT RADIO LABORATORIES, INC.**

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