

# HI-FI Music AT HOME

Published by MILTON B. SLEEPER

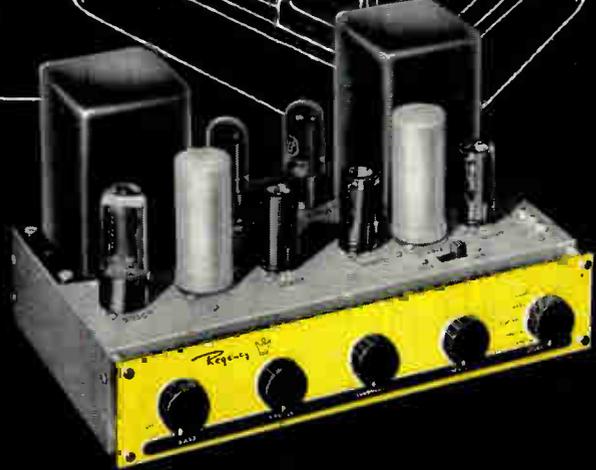


How Mr. and Mrs.  
**"SOUND"**  
MAKE THEIR HI-FI  
MUSIC AT HOME

SEE PAGE 21

CHOOSE

**Regency**



## CUSTOMIZED HIGH FIDELITY

for greatest enjoyment... biggest dollar value!

Let the thrill of true, life-like reproduction of your favorite records be the guide to selecting your high fidelity equipment. For supreme listening pleasure, your **REGENCY** dealer has assembled a special collection of finest individual components... custom mounted in beautiful **REGENCY** cabinets.

Ask to hear this ensemble. You'll understand better why true fidelity of tone depends upon these two important points:

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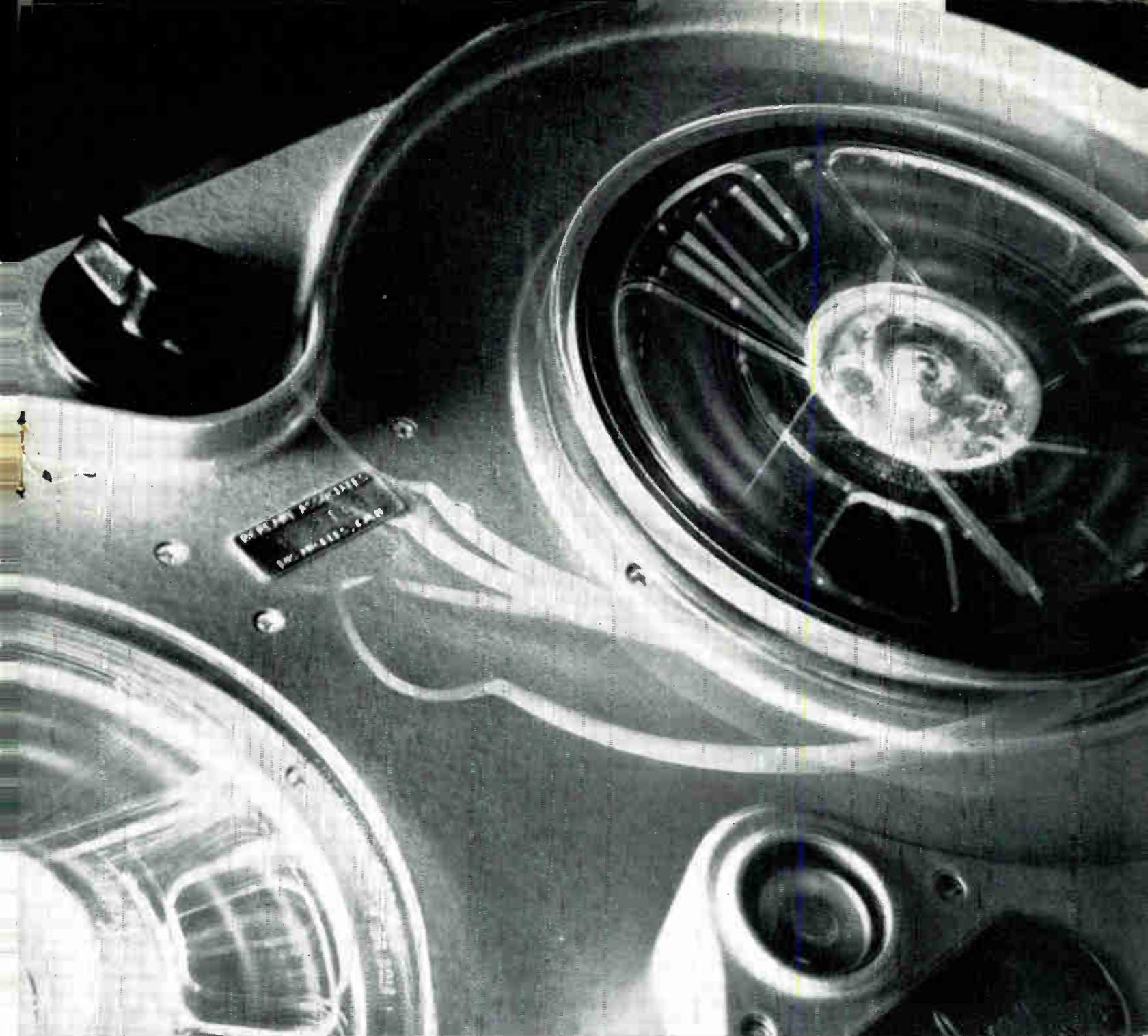
*Write for name of nearest dealer.*

### TYPICAL CUSTOMIZED SYSTEM

Components illustrated here, for example, can be selected for installation in **REGENCY**-designed custom cabinet. Cost given is approximate retail price.

REGENCY-designed Cabinet . . . . .	\$ 55.95
REGENCY Amplifier HF80 . . . . .	69.95
High Fidelity 3-Speed Record Changer . . . . .	51.75
Two-way Speaker with Enclosure . . . . .	62.50
Approximate Retail price of complete Customized High Fidelity System . . . . .	\$240.15

**REGENCY DIVISION, I.D.E.A., Inc.**  
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*Makers of World's First All-Transistor Radio*



## NO MORE "UNFINISHED" SYMPHONIES!

**WITH SOUNDCRAFT "PLUS-50" MAGNETIC RECORDING TAPE! • 50% EXTRA PLAYING TIME • EXTRA STRENGTH "MYLAR" BASE • FULL DEPTH OXIDE COATING**

Here at last is the *perfected* "long-playing" magnetic tape, bringing you *50% extra* playing time with no compromise in strength or recording quality.

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More than 200 million feet of this iden-

tical tape have been supplied by Soundcraft to the U. S. Government prior to this announcement.

See for yourself why there's no finer tape at any price than Soundcraft "Plus-50" Tape. Get some at your dealer's today! For further information, write Dept. Z-6.

FOR EVERY SOUND REASON

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CORP.

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Since 1935  
the Garrard has been  
sold and serviced  
throughout the United States.

It is recognized every-  
where for superior  
performance, ruggedness  
and reliability.

**CHECK CRAFTSMANSHIP, FEATURES,  
PRICE AND SERVICE . . .**

and you will understand clearly why this is  
the world's No. 1 high-fidelity record changer.

**"RIGHTS" and "WRONGS"**  
of record changer design  
(important in protecting your records).

**RIGHT:**

Garrard Precision Pusher Platform . . .  
the only record changing device that insures  
positive, gentle handling of records with standard  
center holes.

**WRONG:**

"Overhead Bridges" (as on ordinary changers)  
. . . which may damage or dislodge records  
accidentally.

**RIGHT:**

Garrard removable and interchangeable  
spindles . . . Easily inserted; accommodate all  
records, all sizes, as they were made to be  
played; pull out instantly to facilitate removal of  
records from turntable.

**WRONG:**

Fixed Spindles (as on ordinary changers) . . .  
which require ripping records upwards over  
metallic spindle projections after playing.

Other Garrard features include: 4 pole motor  
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—no wows, no waves • weighted turntable—  
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"plop". • easy stylus weight adjustment—pro-  
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—fits all popular high fidelity cartridges



**GARRARD**  
*"Triumph"*

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. . . and this is the LEAK TL/10 HIGH FIDELITY AMPLIFIER  
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Most economical amplifier ever built by Leak. Despite amazingly low price, Leak standards have been maintained, with all the engineering skill and fastidious assembly and wiring that have won world-wide admiration. Incorporates an ultra-linear 10-watt circuit, with 2 of the new KT-61 beam power output tetrodes in push-pull. Harmonic distortion only one-tenth of one percent at 1000 cycles, for a power output of 8 watts . . . a noteworthy achievement insuring flawless reproduction.

High damping factor of 23, and low hum level of -76 db below full output, are ordinarily found only in far more expensive units.

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Treble, 23 db  
range of control

**Control 3**  
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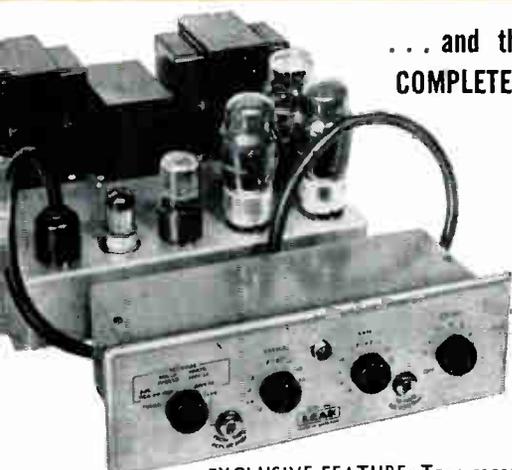
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Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



# Music AT HOME

THE GUIDE TO HI-FI REPRODUCTION FROM RECORDS, TAPE AND FM RADIO

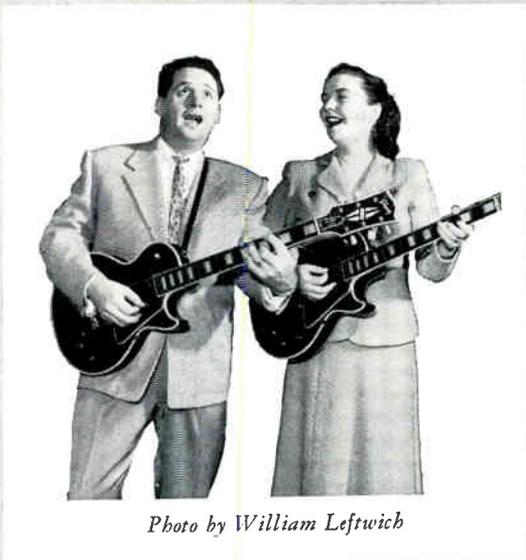


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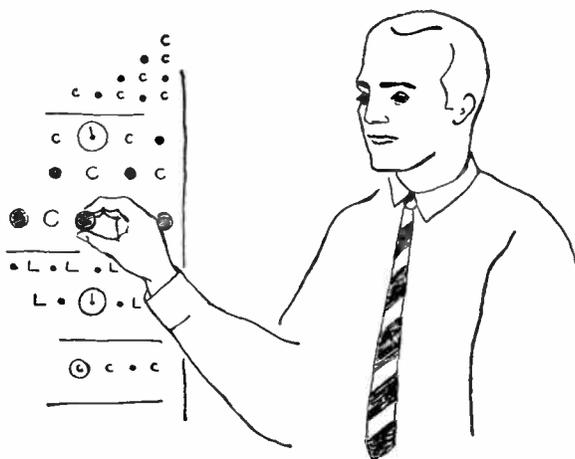
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**COVER PHOTO:** When Les Paul and Mary Ford make records, he plays the guitar while she sings, but on the occasion when Fred Reynolds and photographer William Leftwich visited them to get the story told in this issue, Les and Mary treated them to some special music which they both sang and played.



## Engineers' dream

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## Records, Tape, and FM Radio

### With Pardonable Pride . . .

We can't resist publishing a few of the comments on the new Record and Tape Reviews which started in the March-April issue. Here are some of the comments in letters received immediately after the issue came out:

#### Stephen F. Karandy

"I am particularly pleased with your code breakdown of records and tapes. It is the most detailed I have seen, and you are to be commended for this service to your readers. We can now use it as a guide without wading through so much detail as in other publications." 2419 Williams Lane, Decatur, Ga.

#### Edgar F. Schultz

"I like the record reviews in the March-April issue. The new type of reviews is the reason for the renewal of my subscription." 1520 S. Second St., Springfield, Ill.

#### Arthur Gonty

"The record reviews make a big difference in the Magazine. The ratings by numbers are especially valuable to me. So I hope you will expand this department." Frontenac Beach, Mich.

#### George C. Kammermeyer

"Your new record review department, considering the method of rating, is in my estimation the best I have seen. Congratulations on what appears to be a very fine service, and a well-organized one at that, to us record collectors." 4720 San Francisco Ave., St. Louis, Mo.

#### Dr. Eugene M. Sigman

"After reading the record reviews in the March-April issue, I am renewing my subscription for three years. Hope you begin planning to make your magazine a monthly." [Sorry, but our plan is to stay on the bimonthly schedule.] 5 Douglas Dr., Waterloo, N. Y.

#### Robert J. Myers

The letter from Mr. Myers was the shortest communication we have ever had from a reader, but it was no less expressive of his opinion. He wrote: "Re Record Reviews: Great." 242 E. Knight Ave., Collingswood, N. J.

#### Fred Reynolds

From our Music Editor: "What about letters from readers who didn't like the new department? Weren't there any gripes at

*[Continued on page 8]*

*Hi-Fi Music at Home*

# listen!



The Ampex 600 monitor selector switch lets you make an instantaneous listening comparison between what is fed to the tape and what the tape plays back to you. (Ask your local Ampex distributor for this demonstration\*)

... and you will hear how perfect a tape recorder can be

On the Ampex 600 it takes the most perceptive listening to hear even the slightest difference between what goes into the recorder and what the tape plays back.

Listen again . . . after an Ampex has run for thousands of hours. The comparison will still be equally favorable. This sustained performance is something that specifications do not show. But this is the reason why Ampex has become a magic name.

For recording from F-M radio, copying of valuable records, playing of pre-recorded tapes or the making of personal or professional recordings, the Ampex 600 is a permanent investment in satisfaction.

## ARTHUR FIEDLER *listens...*

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Perfection of the famous  high fidelity

# Patrician 4-WAY SPEAKER SYSTEM

NOW YOURS TO ENJOY  
THIS EASY  
**DO-IT-YOURSELF**  
WAY



## STEP 1

### Model 103C Package of Patrician IV 4-way Driver Components

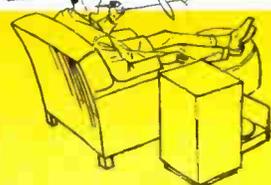
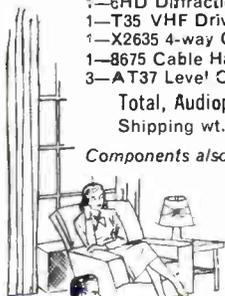
Use this simplified way to reach the ultimate in high fidelity reproduction. Permits you to build the interior horn assemblies yourself or add the Model 115 "K" horn, for a complete 4-way system. Model 103C includes:

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2—828HF Drivers	
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1—T35 VHF Driver	33.00
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3—AT37 Level Controls	

Total, Audiophile Net: **\$348.00**

Shipping wt.: 103 lb.

Components also available individually



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Add this scaled-up "K" type low-frequency driver horn to the Model 103C components and you have a complete new Patrician IV 4-way speaker system ready to operate.

Utilizes the Klipsch principle of folded-corner-horn loading with extended taper rate down to 35 cps for augmented bass reproduction. Includes integral mid-bass exponential horn bell drilled to accept E-V Model A8419 low-frequency horn sections. Black matte stain. Can be color painted by user, but will not take furniture finish. Size 57½ in. high, 37½ in. wide, 26½ in. deep. Shipping wt.: approx. 150 lb.

Audiophile Net: **\$180.00**

## STEPS 1 AND 2

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All the flawless performance of the incomparable new Patrician IV is now available to music lovers in this Utility 4-way System. Every engineering advantage of multiple cross-overs, specialized driver components and intricate interior acoustic design is utilized to achieve the utmost in cleanliness, range and realism.

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Audiophile Net: **\$528.00**

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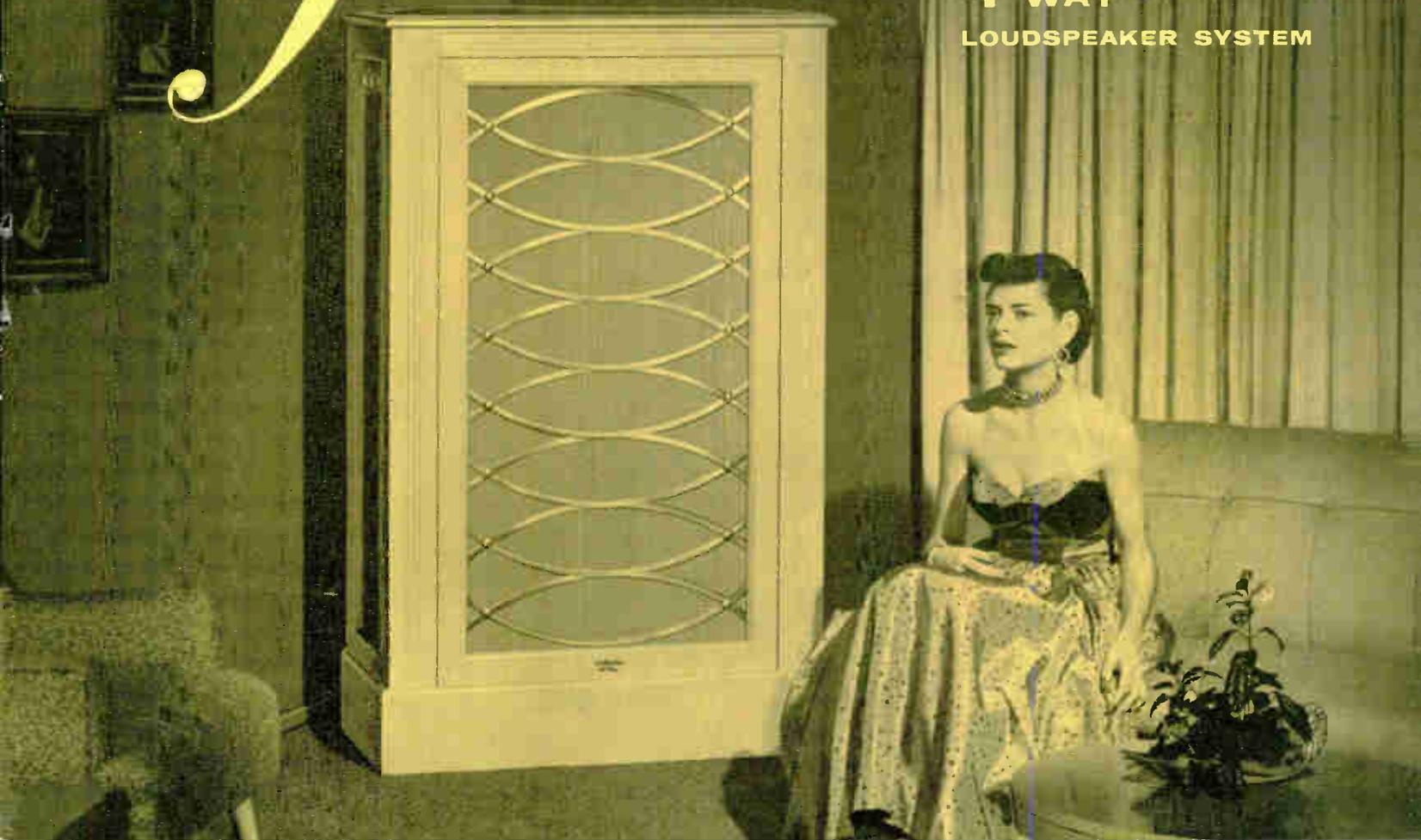
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# Patrician IV

4-WAY  
LOUDSPEAKER SYSTEM



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Your living room becomes a concert hall as you listen enthralled to the superb *Patrician IV*. Originally selected by recognized authorities for "the excellence of its balanced frequencies and cleanliness of sound over so long a range"... the new, improved *Patrician IV* is even finer today than ever! Tailored to the corner of the room, the *Patrician IV*, with its folded horn and other E-V features, conserves to the fullest the greater spatial requirements of highest fidelity. With its unique, separate 4-way system, it provides a sweep and brilliance of reproduction that is unsurpassed—minimizes intermodulation and transient distortion—assures smoothest, most efficient handling of the full range of frequencies in the audio spectrum. Three special controls permit proper balance to room acoustics. Designed for enduring beauty in authentic styling—and custom-crafted of finest hardwoods with Blonde or Mahogany veneers in exquisite hand-rubbed finish.

*Patrician IV*. Complete 4-way speaker system, installed in Korina Blonde or Mahogany enclosure. Size: 62 in. high, 39 in. wide, 29 $\frac{1}{8}$  in. deep. Audiophile Net: \$772.50

Write for Bulletin No. 220

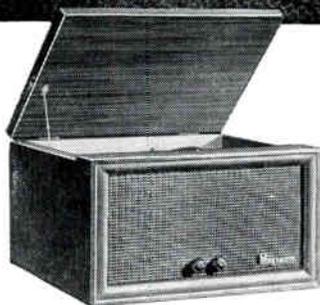
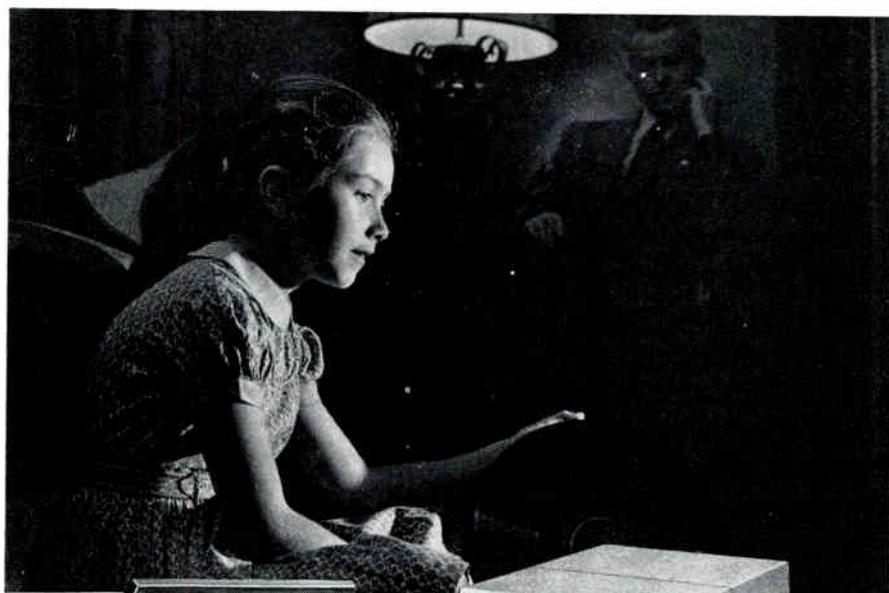


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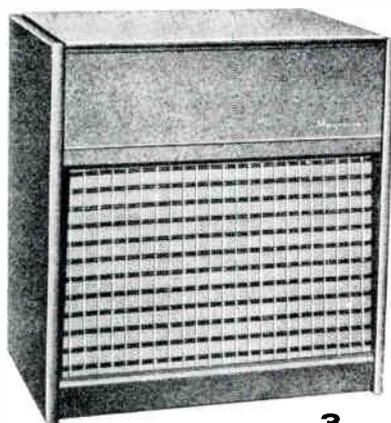
If you enjoy music—think of hearing every note clearly—without distortion—exactly as it sounds at concert stage or studio. Magnavox makes this thrilling experience possible for everyone at remarkably low cost. For high-fidelity instruments recognized everywhere as the finest, see these and other magnificent models at your Magnavox dealer's. His name is listed under "Television" in the classified phone book.



2



1



3

**1. Baton 220A**—compact table radio-phonograph. Fine performance. Extended-range tone. Two front-mounted speakers. AM radio. 45 rpm changer. Big easy-to-tune dial. Cordovan, Green or Blond. \$69.95.

**2. Playfellow TP254M**—high-fidelity phonograph. Two extended-range speakers with sound diffusers. Push-pull amplifier. Automatic 3-speed changer, dual styli. Acoustical cabinet. Genuine mahogany. \$99.50.

**3. Magnasonic 210**—high-fidelity console phonograph has 12" plus 5" speaker, 10-watts audio power. Push-pull amplifier, 3-speed changer, dual sapphire styli, smart acoustical cabinet. \$149.50.

*More people own Magnavox High-Fidelity Phonographs than any other make.*

The magnificent  
**Magnavox**  
high-fidelity • television • radio-phonographs

THE MAGNAVOX COMPANY, FORT WAYNE 4, INDIANA

## RECORDS, TAPE AND FM

*Continued from page 4*

all? I think you are holding out on me." At press time, letters registering enthusiastic approval are still coming in, but not one word of complaint or criticism has been received! However, we are still open to suggestions for improving the reviews and the method of ratings.

### Hi-Fi Yearbook

Will be published as a seventh issue of *MUSIC AT HOME*. The Yearbook will contain an elaborate compilation of special reference information of great value to music listeners and audio enthusiasts. It will range from a Who's Who in Hi-Fi to circuits of standard audio components, and from special articles on music and equipment by top authorities to a directory of manufacturers and their products. Of particular reference value will be the index of articles on recorded music and audio equipment published in all current magazines. Further details on the Hi-Fi Yearbook issue will be found in the July-August issue.

### Victor and the Girls

Is this a paralogism? Since Emanuel Sacks, who is a bachelor, took over the reins at RCA Victor, there has been a steadily increasing number of female singers added to the company's popular roster. To name a few: Dinah Shore, Jaye P. Morgan, Kay Starr, Marilyn Monroe, Eartha Kitt, Sunny Gale, Patti Andrews, Toni Arden, June Valli, Lois Butler, Betty Johnson, Sonny Graham, Alma Kogan, and Terri Stevens. Who can reason on the logic of acquiring such an imposing line of pulchritude! *MUSIC AT HOME* does not dare to surmise how these charmers would be as an all-star all-girl choir. We believe firmly, however, that their pictures in full color would make a splendid album cover.

### At Long Last

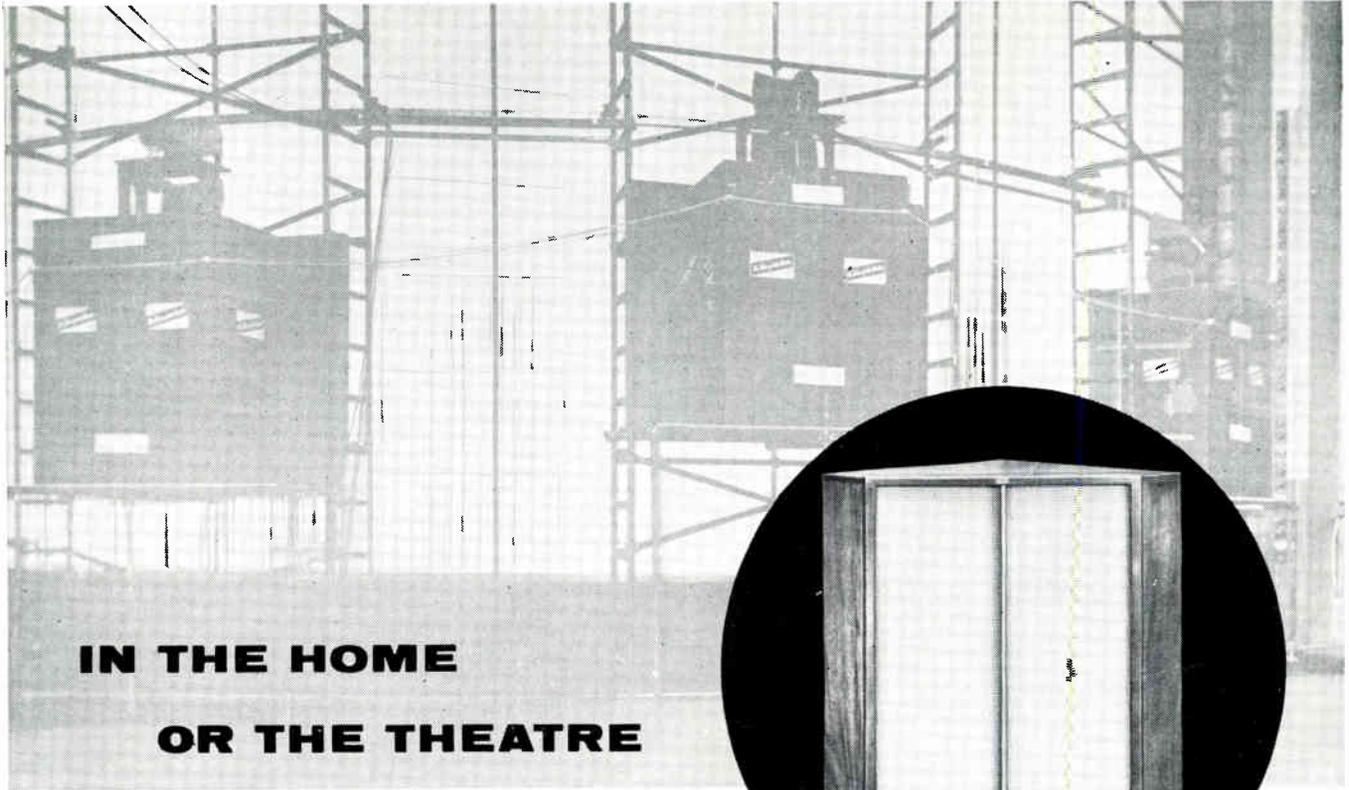
The British Broadcasting Company has started regular program transmissions on FM. This idea was first proposed 10 years ago as a means of solving the interference problem on AM which, in England, is as bad or worse than in the U. S. The manufacturers fought the proposal by direct action and by passive resistance. Members of Parliament joined the broadcast engineers in arguing against it, in spite of the fact that exhaustive FM-AM tests in the VHF band, conducted by the BBC, showed that FM gave decidedly better service to listeners. In the end, despite all the opposition, FM won on its merits. There will be 27 stations, each with three FM transmitters, to carry the three programs furnished by the BBC.

### Recorded Folk Music

The "International Catalog of Recorded Folk Music" compiled on behalf of UNESCO has been published by the Oxford

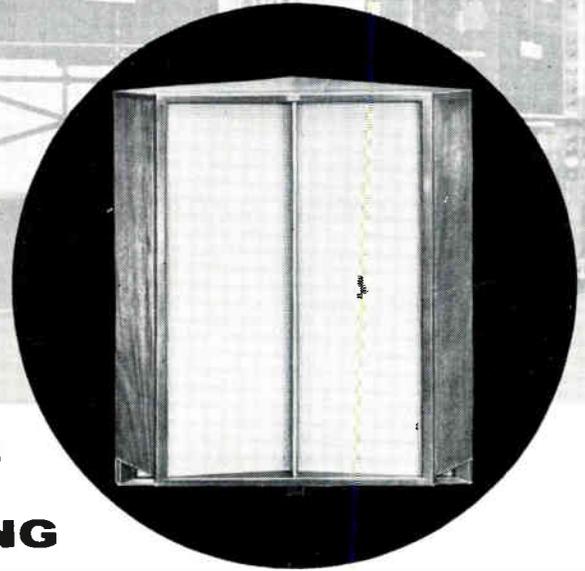
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*Hi-Fi Music at Home*



**IN THE HOME  
OR THE THEATRE**

**THE FINEST SPEAKERS  
ARE ALTEC LANSING**



More than 10,000 theatres throughout the world are equipped with Altec Lansing sound products. Stereophonic sound is recorded with Altec microphones, reproduced on Altec speakers and amplifiers. Experience, precision engineering and highest standards of craftsmanship are behind the superb sound equipment Altec Lansing manufactures for the home.

The Altec 820C Speaker System is, truly, the finest speaker made for the home. Utilizing the exclusive design of the world renowned Altec Voice of the Theatre Speaker systems, it consists of a direct radiating low frequency horn in a bass reflex cabinet, an 802C High Frequency Unit mounted on the H-811B Sectoral Horn, two 15 inch 803A Low Frequency Units, and an 800D Dividing Network. It is unconditionally guaranteed to reproduce all the tones from 30 to 22,000 cycles. The beautifully finished corner cabinet makes the 820C ideal for any location where the absolute finest in high fidelity reproduction is required. The 820C Speaker System sells for \$525. Without the furniture cabinet, for custom installation, \$388.

There is an Altec high fidelity speaker in every price range. The Altec Dia-Cone Speakers, ranging in price from \$21.60 to \$66.00, are unsurpassed in their field. The famous Altec "Duplex" speakers, priced from \$99.00 to \$156.00, offer the highest quality, and carry an unconditional quality guarantee which no other speaker or combination of speakers can equal.

See your Altec  
High Fidelity Dealer  
or write Dept. 5-M



**ALTEC FIDELITY IS HIGHEST FIDELITY**

Dept. 5-M  
9356 Santa Monica Blvd., Beverly Hills, Calif.  
161 Sixth Avenue, New York 13, N.Y.

**NOW! 5 brilliant new additions to the famous HORIZON high fidelity line!**



**NEW SPEAKER SYSTEM**

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**RECORDS, TAPE AND FM**

*Continued from page 8*

University Press. The book includes an annotated list of records from 50 countries, and a list of more than 100 record libraries. Price is 16/-.

**Tape Tracks**

We have had a number of letters asking for explanations of terms used to describe pre-recorded tapes. If you, too, have been puzzled, this may help you: All pre-recorded tape is  $\frac{1}{4}$  in. wide. Single-track (full-track) tape is to be run in one direction only. Double-track (half-track) tape has two narrow tracks recorded on it, and is used in a machine with a narrow head so that when the tape has been run in one direction to play one track, it can be run in the opposite direction to play the other track. On some machines, the head is stationary, and it is necessary to switch the reels to play the second track. On others, the head moves up and down when a reverse control is operated, eliminating the necessity of switching the reels.

Binaural or stereophonic tape has two tracks, but it calls for a machine with two heads to take off the two tracks at the same time. It can be run in only one direction.

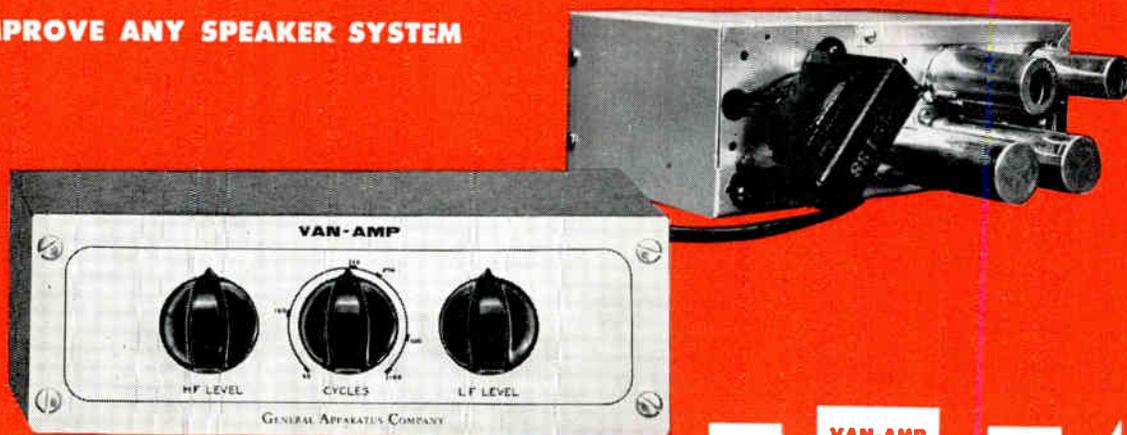
**The "Gift to the Giver"**

You can still get a copy of the LP made by Toscanini's orchestra during its special conductorless performance. (See *MUSIC AT HOME*, Nov.-Dec. 1954 issue) Purpose of making the record was to raise funds to continue the orchestra under its new name, Symphony of the Air, of which Don Gillis is president. Contributions of \$10 or more are acknowledged with a gift copy of the record. This record is not for sale. Address is Symphony Foundation of America, Inc., Carnegie Hall, New York 19, N. Y.

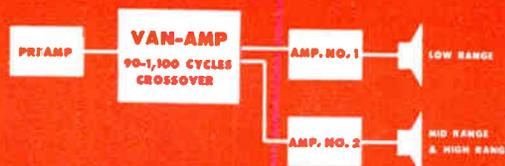
**Haunted House**

Coming by really "hot" advance information about the record business is somehow more difficult than soliciting facts on future plans of the Atomic Energy Committee. Competition today is so fierce and ethics throughout the whole record industry are so loose that each manufacturer guards his up-coming releases with the fervor of Jack Benny sheltering an old Buffalo nickel. By the simple extreme of visiting Emory Cook at his place in Stamford, Conn., we did manage to learn that shortly he will release a hi-fi recording of a haunted house. This, at least, is the neatest trick of the month. Who could beat him to the ghost, for who besides the ubiquitous Emory could find a haunted house suitable for hi-fi recording? When you come right down to cases, is it the house that is haunted, or is it the people? Gad! Think what this will do to those hi-fi perfectionists who suddenly find they have ghosts in their speakers.

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**Speakers:** use the VAN-AMP with any types of speakers, any impedance. Instructions include 3-speaker diagrams. **Wiring:** the VAN-AMP drives two amplifiers of 10 watts output, or more, for the high and low-frequency ranges. **Frequency Cutoff:** high-efficiency double R-C circuit has full 12-db slope per octave. **Crossover:** continuously variable from 90 to 1,100 cycles.

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The G. A. VAN-AMP is similar to the design shown in *Music at Home*, January-February issue, but with circuit refinements. It is available as a kit, or completely assembled. Tubes are included. You may purchase the Instruction Book first, if you wish, and deduct the price of \$1.00 when you order a VAN-AMP. Place your order now, and enjoy improved, balanced performance from your system—whatever types of speakers you use.

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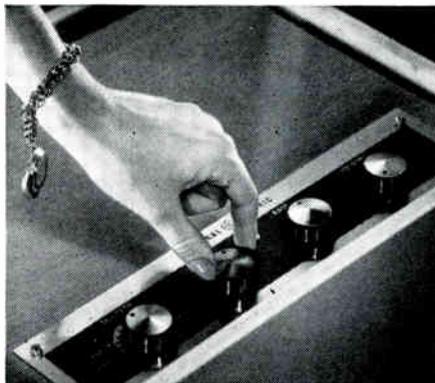
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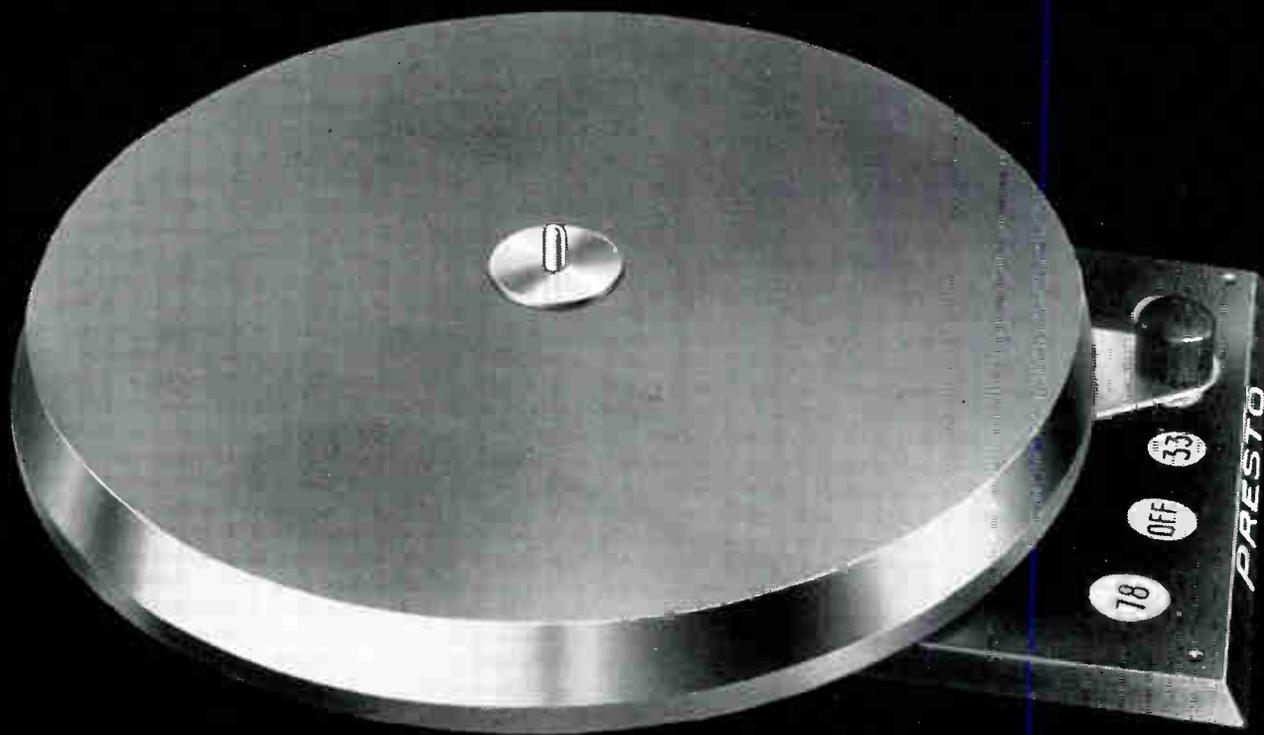


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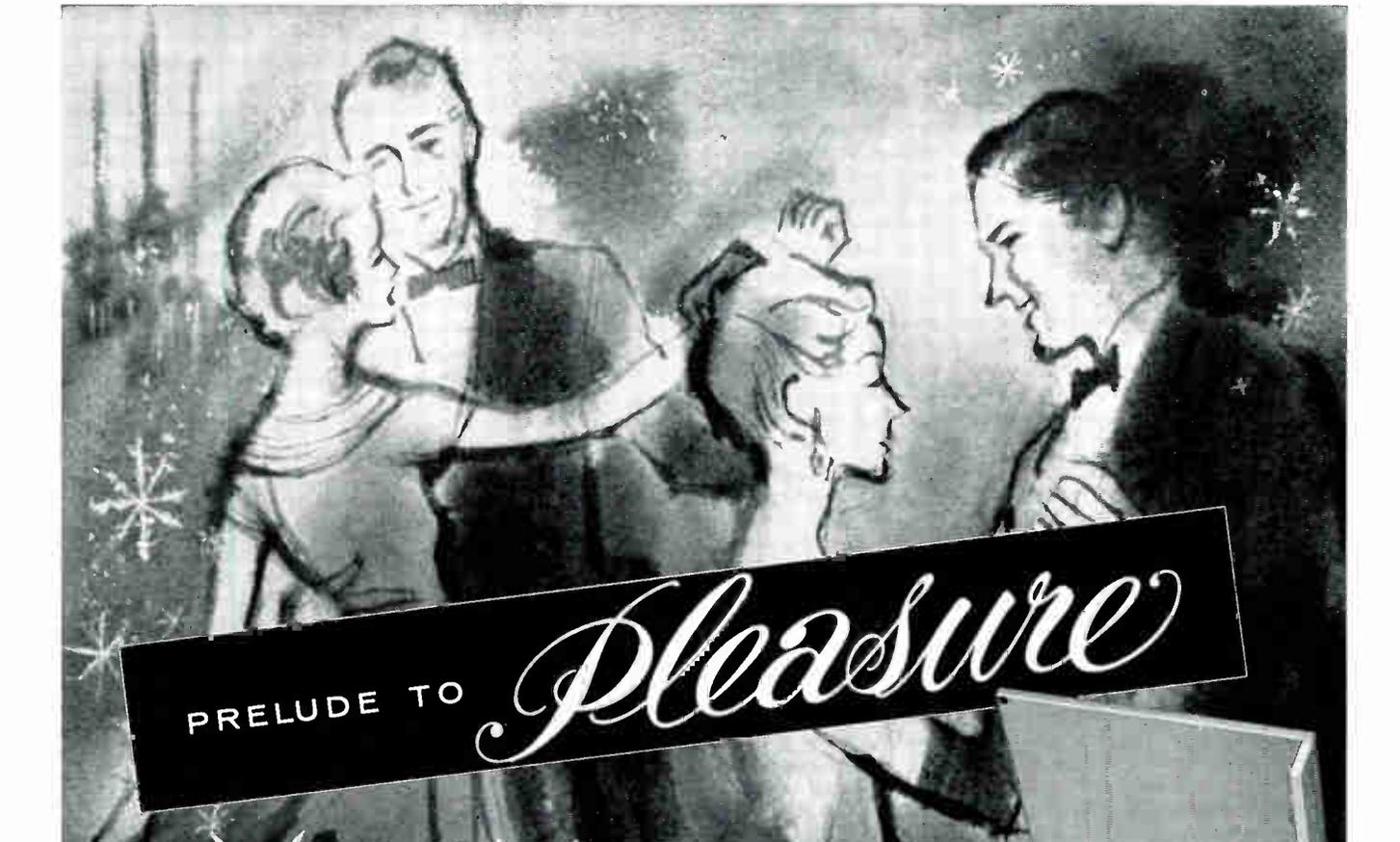
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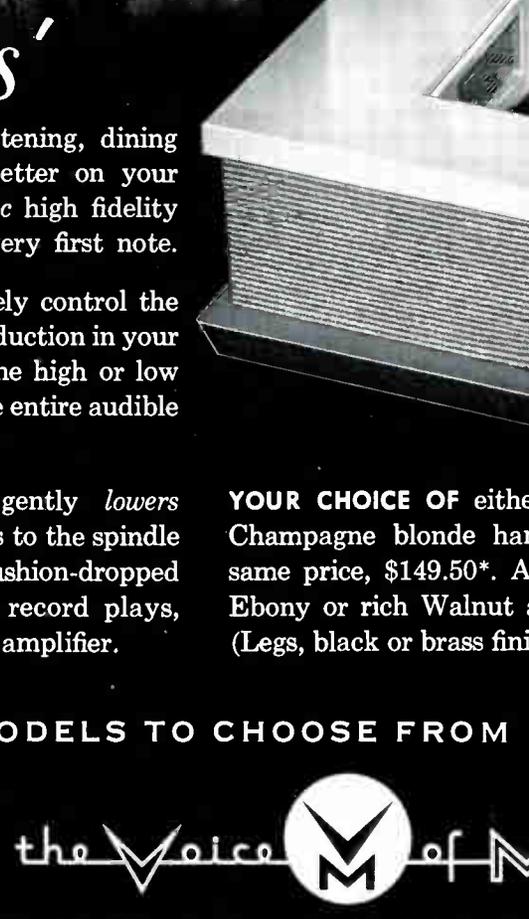
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# MUSIC in YOUR HOME

THERE are many compensations for the frequently arduous tasks involved in producing successive issues of this Magazine. Not the least is the opportunity to watch the byplay of opinions which sometimes swirl around us like bits of paper chasing each other in miniature cyclones. They may have to do with music, or the people who create it, or with some aspect of equipment and its use for recording or reproduction. Usually there is an interplay involving both the genesis and the end results of hi-fi activities. I think you, too, will enjoy reading these typical examples:

Let's start with H. F. Goldman of the *Julliard Review*: "The machines — radio, film, and phonograph — seem to make art accessible and easy . . . music . . . exists, if for nothing else, to feed these machines, and to prevent silence . . . but who would say that Beethoven does not deserve somewhat better than to be heard as an accompaniment to conversation, or as a salesman for vermouth?"

From Ben Deutschman, a former teacher now concerned with music education activities: "Let's go back in time a bit to see for what purpose some of the music by classical composers was written. When Handel's *Carnival Ride on the River Thames* was first performed, he could hardly have informed His Majesty George I that it would be necessary for everyone to be quiet while the orchestra was playing. The King might have resented it! Much of Schubert's music was written and played in Viennese beer gardens, for people whose local variety of *gemütlichkeit* included both small talk and serious conversation. Even Mozart wrote many chamber works to be performed during dinner parties and at after-dinner gatherings which were the scenes of animated discussions, and the exchange of personal confidences.

"Music served as a background for social events long before we had records, tapes, and radio. The rhythm and tempo of music exert influence upon the human mind whether or not a person is conscious of the music that is being played. If you feel that Beethoven is desecrated by association with spaghetti and meat balls, you should be patient with those of us who like to season our food with the classics. We gain something good from listening to music under these circumstances, possibly more than those people who prefer to live without it except on those occasions when they sit in a concert hall and follow the notes of a symphonic score while the orchestra is playing."

Another attitude of listening is represented by the conductor whom James Fassett quoted as complaining that the present hi-fi trend causes reproduced music to seem unnatural when one can hear "the non-musical, mechanical sounds made by the instruments on a record, that you would never hear in a concert hall."

To which André Kostelanetz replied: "There's no doubt that a very sharp hi-fi record is like looking with a microscope at a page of print, or at a leaf and seeing all the veins and colors and things that nature provides . . . The main object is simply hearing music recorded as realistically as possible. . . . A very good example is *The Grand Canyon Suite*, which begins with the lowest note of the tympani, the E, and in about five seconds you hear the highest harmonics of the violins; and with the modern hi-fi equipment you can really hear all these things very clearly."

Here is a comment from Fred Reynolds, writing in the *Chicago Tribune* on the same subject: "Classical music is written almost entirely for presentation on the concert stage, before an audience. On the other hand, the overwhelming amount of popular music is written for records and the radio, the two mass media that bring music into the home.

"The classical record must duplicate for the listener the sound he would hear if he were in a concert hall instead of his living room. But with popular music, being what it is, you are free to exploit in hi-fi any and all effects and tones, no matter how completely crazy they may be. Any combination of musical ingredients can be used in popular music without the restrictions of concert-hall tradition."

And so it goes. Sometimes the observations and opinions created as by-products of hi-fi are as interesting and provocative of discussion as the music itself! And the supply is inexhaustible.



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*Scene from "The Transposed Heads", with libretto by Thomas Mann, and music by Peggy Glanville-Hicks. Left to right are William Pickett as Nanda, Audrey Nossaman as Sita, and Monas Harlan as Sbridaman. Sculptured goddess Kali was built by the multi-talented director Moritz Bomhard*

**Backstage Story from Louisville — by P. Glanville-Hicks**

## OPERA RECORDINGS

IT IS NOT OFTEN that modern operas get recorded. It is almost without precedent that they should not only be commissioned for a handsome sum but given a month's run of public staged performances, an airing on TV, and a first class recorded release to boot.

Yet this very thing is happening in our music world, in the town of Louisville, Kentucky — a citadel justly famous for its Derby, but more important to many of us for its modern music marathon.

The Louisville Symphony and its conductor Rob Whitney are becoming almost as widely known as Cadillacs and Coca Cola. First of the Louisville Opera Commissions, made possible by a Rockefeller grant, is "The Transposed Heads", with libretto by Thomas Mann, and music by the writer. Columbia has recorded the complete work, and will release the discs in May. Backstage of these recordings is one of the Country's most spectacular young opera directors, Moritz Bomhard, a musician of rare quality and a brilliant conductor.

This blue-eyed, blond Bavarian has all the cultural comprehension peculiar to opera men of his native Germany, with which he combines an incredible energy, ingenuity, pep, and hustle wholly characteristic of his adopted America, enabling him to cope superbly with the impossible theatrical conditions that prevail here.

Graduate of Juilliard scholarships, Bomhard's first professional activities in the United States were as conductor of the Princeton orchestra and Glee Club, until the War intervened. No sooner was he released from the U. S. Army in 1946 than his "Opera for College" and, a little later, his "Lyric Stage" group were on the town, and on tour around the Country. A seven-year jump ahead of the now clearly established opera trend, this operatic trail-blazer paused as if to catch his breath in Louisville and, before you could say knife, he had founded there what is virtually a civic opera company, the Kentucky Opera Association. With this group he has, in the past six years, staged a dozen or more of the standard repertory operas and nearly twice that number of special productions for TV in the Kentucky area.

By April 1954 this group, in collaboration with the Louisville Symphony Orchestra, was producing the first contemporary opera, "The Transposed Heads", under the Rockefeller grant, and the recording work was under way. December of the same year saw the second commission, Richard Mohaupt's "Double Trouble" similarly dealt with, while this spring George Antheil's new piece "The Wish" makes its debut and it, too, will be neatly reeled away in Columbia's tape archives, awaiting its disc debut. Commissioned for next fall is a new opera by Rolf Lieber-

man, whose "Penelope" was the hit of last summer's Salzberg Festival. It will be premiered in Louisville and added to the list of new stage works that will reach you on a Columbia-Louisville label.

Technically, these opera discs should please even the most fastidious of fi-fanciers. Columbia's best technicians are flown down for each recording session. Most fortunately, the local concert hall (a nightmare when it comes to staging theatre in it) has turned out to be a perfect hall acoustically for recording purposes.

Vocally there are some real surprises. A great deal of the credit here must again go to Moritz Bomhard, for he

get the wrong heads put back on their bodies. Thereupon, each tries to claim the same wife, the one on the basis of his head, and other because of his body.

Mohaupt's tale concerns a long-lost twin who shows up in a town where his identical brother maintains both wife and mistress. The chaos that ensues (it was originally titled "Double-Bedlam") is psychologically of the mink-coat era, despite its Comedia del Arte style in production.

The third, Antheil's own libretto, offers a Greenwich Village story wherein the characters die one by one, and carry on with the story as ghosts, no one knowing which ghost represents which character. The final curtain sees



*Richard Mohaupt's "Double Trouble", second opera commissioned under the Rockefeller grant, has been produced and recorded at Louisville*

is a veritable Svengali when it comes to discovering new singers and coaxing them to heights that surprise even themselves. Audrey Nossaman, a young Louisville girl who sings the part of Sita in "The Transposed Heads", has a fabulous lyric-dramatic soprano voice that can take her places. In fact, it has already done so for at this time of writing, she is in Milan on a scholarship. William Pickett's baritone voice, of extraordinary range and beauty, adds tremendously to the excitement of the high tessitura writing in the part of Nanda in the first opera. Pickett does a fine job, too, as one of the Twin Brothers in Mohaupt's "Double Trouble", the second production, a tale based on the time-honoured Plautus text of a comedy of errors.

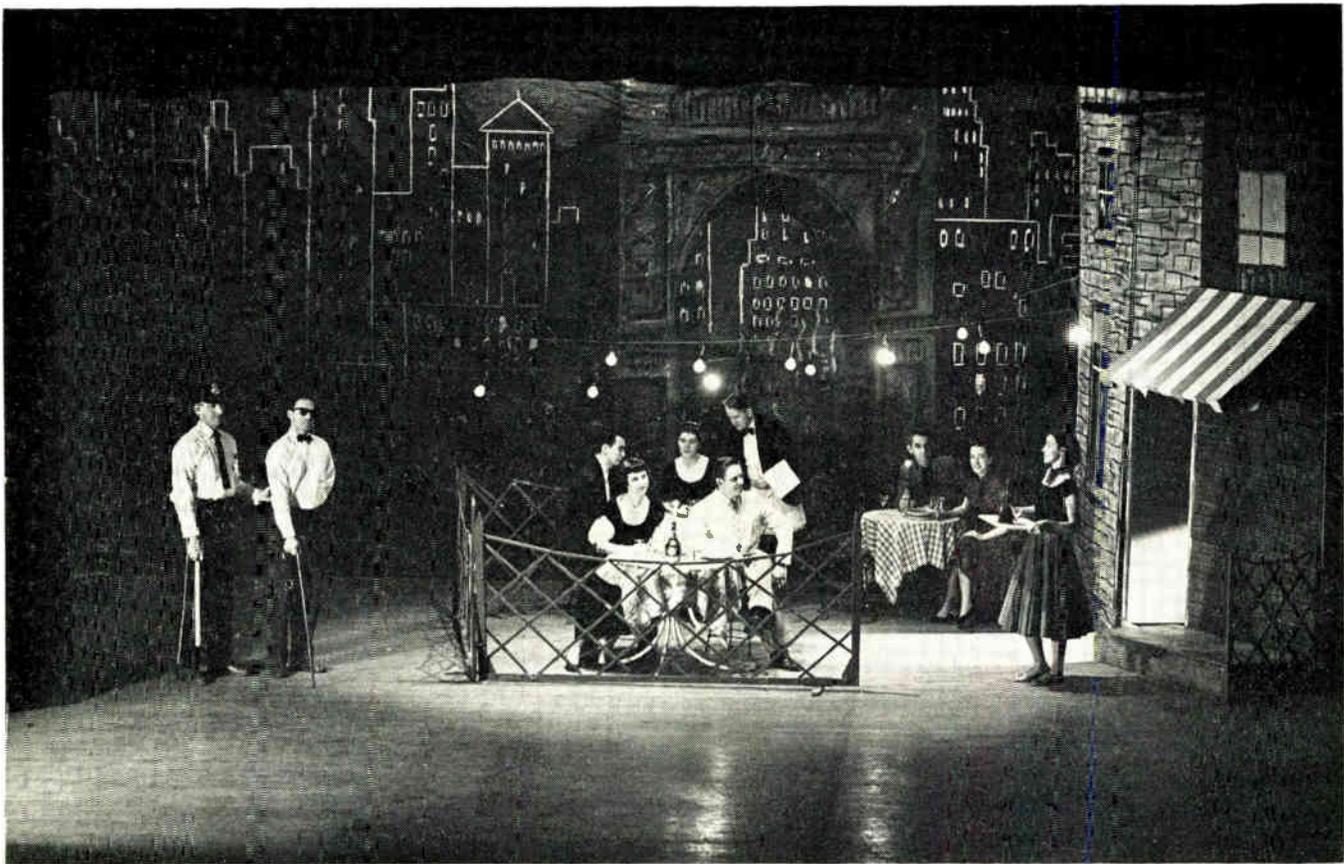
The stories of the Louisville operas could scarcely have offered greater contrast. In "The Transposed Heads", a Hindu legend, a husband and a lover are decapitated, and

the sole survivor cutting himself a piece of poisoned wedding cake!

In theatre, pacing is a vital factor, and in musical theatre it is of the very essence. It is perhaps in this sphere that Bomhard's most extraordinary gifts lie. He has an infallible sense of timing and tension, and an ability to create effects of power and delicacy within the larger spans of operatic shape.

In the time-space of a few rehearsals, he makes a new score coalesce and sound smooth and inevitable, like a classic — like his own polished Mozart productions which, according to many notable singers who have worked with him, are about as perfect as any you'll hear.

This pacing sense is a born thing and cannot be acquired; it is a kind of inspired moment to moment adaptability that unifies things in a state of motion. It is not entirely emotional, nor is it entirely formal, but partakes



Third of the opera series is "The Wish", George Antheil's new piece. Front, left to right: Robert Fischer, Russell Hedger, Charne Riesley, William Pickett, Virginia Guernsey. This, too, has been recorded by Columbia, to be released under the Columbia-Louisville label

of the nature of both at a high point of control. In the recording of "The Transposed Heads", and in "Double Trouble", second opera album to appear, the delicate adjustment of stage pacing and tempi to the recording situation, where the visual element was no longer present, is only one of the many subtle manifestations of this rare but indispensable gift.

Fine lieder singers have the quality in miniature; the expressive picture of the whole song is held completely in the mind so that detail of diction, breadth of phrases, and dynamic power of crises and repose all flow together into a whole, so that the performer and the piece performed seem a simultaneous act of art. Bomhard can sustain this power of fusion over a whole opera, and it ranks high among the factors that make the Louisville opera recordings exciting and distinguished performances.

This total control of all the parts, and the special unity that it brings are so rare a thing in theatre that as a rule, nowadays, every imaginable prop and gimmick are added production-wise, as if to compensate for its almost certain absence.

In Louisville, Bomhard's extraordinary personal con-

tribution is calmly taken for granted. The bulk of the Rockefeller money is given to the composers for their scores, a very minimum being expended upon theatrical real estate.

As a result, the indefatigable director not only coaches the singers, trains the chorus, and rehearses and conducts the orchestra, but plots the whole staging and production, and designs, constructs, and paints the scenery as well. He is known locally as "the shoestring genius". Seeing the results he achieves from nothing, one is left wondering what he could do had he a reasonable budget to work with!

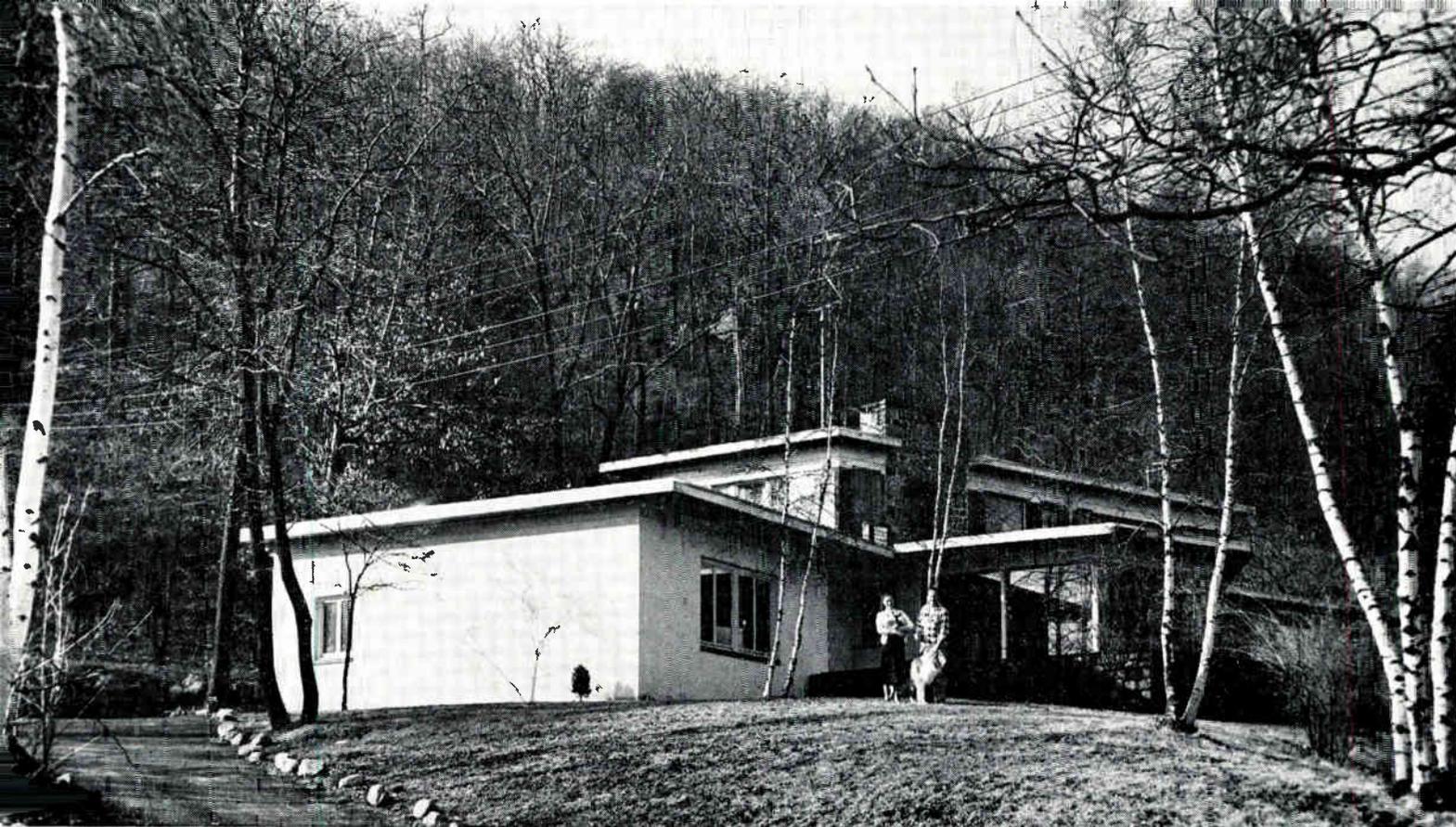
Production in Louisville abounds in hazards, and is never without its hilarious moments. Typical of these was the incident of the proscenium-high goddess Kali for "The Transposed Heads". It is an aluminated sculpture designed to light up from within when the oracle speaks. This giantess was assembled in Bomhard's workshop down by the river. When finished,

she was too handsome for words. But would she fit through door or window, and how could she be brought clear across town to the theatre?

At the crack of dawn on the day *Continued on page 50*



Moritz Bomhard, director of the operas, is a musician of rare quality, and a brilliant conductor



*This is the house that Les Paul and Mary Ford built so that they can make hi-fi music at home*

# LES PAUL AND MARY FORD

They Make Hi-Fi Music at Home

by FRED REYNOLDS

OVER a narrow wooden bridge that is landmarked by a flock of yawning mailboxes, left over a smaller and narrower bridge, down the road a piece, and finally up a driveway that could double as a toboggan slide. By this time you're in Les and Mary Paul's backyard, but any trouble you might have had along the way is well worth the trip to this spot where Les Paul and Mary Ford have fashioned themselves a fabulous home, where visiting is such a memorable event because they're natural, easy, gracious hosts, and most of all they are wonderful people.

Come to think of it, there are many famous artists about whom you truthfully couldn't say all that. With the Pauls, however, it's the plain, unvarnished, 3-point-2 and cheese-and-crackers fact. Let's strum the Gibsons and roll the Ampexes!

The Pauls' home is located half way up a medium-size mountain in a hamlet known as Mahwah, New Jersey. By now, Les knows all the local Indian lore, but the Paul shack is different from any Indian tepee you've ever seen. Modern in design, yet not overpoweringly so, the house sits handsomely against its wooded, hilly background. As a matter of concrete observation, outside it's much as you'd expect a home to be in the foothills of the Ramapos.

Actually, it isn't unlike the houses around it until you start to examine everything closely. As you might expect, though, the Paul influence has spread, and several of their neighbors have started growing tall masts, fancy antennas, and other visual evidence of hi-fi activity.

Come along and meet Les and Mary, for there they are standing on the front lawn with their dogs — Laddie, a large, beautiful, lovable buff Collie, and Bambi, a Mexican Chihuahua, who playfully chases Laddie all over the place. It was almost exactly three years ago that Gray Gordon, their manager, found this spot for the Pauls, in answer to some definite specifications that they had set forth. They demanded something secluded, where they could carry on their recording and TV work without disturbing the neighbors; a secluded, scenic place near enough to New York to make commuting easy. From the Pauls you can drive to the George Washington bridge in 30 minutes. From the top of the tallest tree on the Pauls' mountain, you just can see the television tower on the Empire State Building.

Who could resist walking around outside on such a lovely day! Down below the house is a clear, roaring brook that will make excellent background for the new TV series

the Pauls will start filming shortly. The driveway sweeps around that part of the house which is their recording studio, leading to an oversize parking lot in back. What was once the garage is now gradually being turned into a television studio. The Pauls do everything gradually, testing each improvement thoroughly before making it permanent. The TV studio, big and roomy, is two stories high, with the control room located away up at the back.

Adjoining the TV studio is a superb echo chamber, a weird, cold-looking, Charles Addams kind of creation, with huge partitions set in a row of angles, so that Les can close off any part of the chamber to get the exact sound he wants. When this was being built, a couple of Dutch carpenters refused to finish the job when they found out the room was never going to be used for anything save making echoes! Just outside, the Pauls will start carving their swimming pool into the side of the mountain sometime this summer. Drainage, surely, will offer no problem at this location and, when finished, it should be an enormously happy playpool for the neighborhood children. Just around the corner from the TV studio is the housing for a giant auxiliary generator that can easily maintain the entire Paul electrical system should the regular power shut off.

But cheese and crackers and beer are being served in the den, and they look too delectable to resist. The den, like the house all over, is designed for modern, gracious living. Mary has chosen the decor with the deft touch of the artist that she is. Everything about their home, when not dictated otherwise by technical necessity, is fresh, gay, and warmly bright. The den, as you will see from the photograph here, is oak paneled, with painted triangles of pink and light blue. It is the trophy room, too, where they keep their gold records, symbolic of hits that have sold a million copies or more. The big gold record on the Pauls' left is for *Vaya Con Dios*, now somewhere near the 3,000,000 mark. The others bear such familiar titles as *Mocking Bird Hill*, *How High the Moon*, and *The World Is Waiting for the Sunrise*. There are all kinds of trophies for Les's brilliant guitar playing, including the *Down Beat* award as the best jazz guitarist in the world. Incidentally, the photo taken in their den shows Les and Mary with some of the microphones they have around the place. He used the old job by his right elbow, dating back to somewhere around 1924, to make his very first record. The big bomber is a 1930 product, and that one carried the notes of *Mocking Bird Hill*. Mary is holding the very latest model, about the size of a lipstick. They use this, and others like it, for all their recording work today.

As you may know, the Pauls now do all their recordings at home. However, it wasn't always that way. There was a time when they didn't have this house, when they were out on the road making it the hard way, and they carried around their equipment and recorded wherever and whenever they thought they had the opportunity.

*Les and Mary in the glass-walled corner of their living room. The working area of the house is not allowed to intrude here, yet every room is wired for speaker and microphone connections running to the studio controls*

Towards the end of the recent great conflict, Les Paul found himself in Hollywood — tired, flat broke, and sick to death of commercial radio jobs. He was also unhappy about working in the ordinary commercial recording studios. So he and his best girl, Mary, decided to take a long chance and go it alone. They looked around the town to see what kind of facilities they could rent cheaply, and finally made a deal with the owner of a small machine shop which they could use at night when it was normally closed. By this time, too, Les had conceived some startling ideas that eventually developed into the so-called "new sound" method of making records. This new sound was based on the use of multiple-recording techniques, but no one had ever done much of this before, and experimentation was the order of that day. Had tape been in existence then, the process might have come along faster than it did, but Les and Mary had to work with records and a single recording machine. Financially, things were so rough that Les had to build his own recording equipment from whatever he could pick up.

The machine he built — and parts of it are being used to this day — cost Les and Mary exactly \$165. You can see it in the picture of Les and his workshop. The turntable is an old Cadillac flywheel, dynamically balanced, and, as Les says, "It turned out to be sensational for the \$6.00 we paid the junk dealer." The suction that draws off the chips is supplied by an old vacuum cleaner. The driving motor came from a record changer. The belt, however, was a different problem, for the war was still on and belts were on the restricted list. So ingenious Mr. Paul sent in to a dental supply company, ordering a belt for a dentist's drill, to be shipped to one Les Paul, D.D.S. It arrived



promptly, and the Pauls went to work on a new project.

Multiple recording, in case you might not know, is simply the matter of putting on the same record as many as eight different guitar parts, together with one, two, or up to a dozen voice tracks. Simple? Les and Mary used more than 500 discs in perfecting their first "new sound" record. It was *Lover*. "Today," states Les, "we could do it in one hour." *Lover* was a solid hit, and the Pauls were launched on their own unique way. The little machine



*In their den, microphones and gold records tell of their musical career*

shop was left behind, but the ever-expanding collection of equipment moved around the country with the Pauls.

*How High the Moon* was made in a basement of an apartment in Jackson Heights, New York. In the midst of the 11th take, a plane from LaGuardia Field flew over, and they had to start again. *I'm Confessin' That I Love You* was made in a hotel room. Mary sang under a blanket so as not to disturb other guests. Her one comment: "It was hot." *Whispering* was made in a motel beside Del Mar race track. Both *Tiger Rag* and *Smoke Rings* were multi-recorded in a summer resort during the winter time when no one else was there. Mary sang *Silent Night* sitting on a desk in a New York office.

*Vaya Con Dios*, the Pauls' biggest hit, has rather an unusual history. Les and Mary checked in at a Minneapolis hotel, where they had a room with a radio that played when you inserted a quarter. Neither Les nor Mary had the necessary 25-cent piece, and they both felt like music. So the never-to-be-outdone Paul fed the slot with a guitar pick cut down to quarter size, and the radio came on. It came on just as disc-jockey Merl Edwards was playing a new Anita O'Day recording titled *Vaya Con Dios*. This, they agreed, was a terrific song. So they procured the O'Day record from Edwards, got into their car, and drove without stopping to Mahwah.

*Vaya Con Dios* was destined to be the first recording out of Les and Mary's studios in their New Jersey home. They made it, and called Capitol to tell the company that their new disc was ready. Several people at Capitol, when they learned what it was, nearly popped their eye teeth, for by some strange coincidence Capitol owned the publishing rights to this song. By an even stranger coincidence, those who are supposed to do such things had not shown the song to Les and Mary, thinking Les wouldn't like it. Little things sometimes combine to make big hits.

Now it is time to move from the den into the control room. The main control room is complete down to the last detail. The switches, signal lights, faders, amplifiers, and all the other equipment for hi-fi recording are there. Like all the technical-electronic aspects of the Paul home, it was engineered and designed by Les Paul, with help from Harry Mearns, one of RCA's technical experts. From an acoustic standpoint, the control room is completely dead, so the engineer at the controls (usually Les Paul) will hear true sound from the studio. Next to the control panel, Les has two of his eight Ampex tape recorders. These he has put on rollers, so he can move them about easily. You see, the Pauls work every possible way in recording. That is why the entire house is wired for sound, so to speak.

Les says there is over 20 miles of wire throughout his home. There are Altec speakers everywhere, all equalized and balanced in such a way that they hear the same sound quality from each room in the house. There are input jacks wherever you look, so they can plug in a guitar or a mike and earphones, and make music from the bathroom, or the kitchen, or what have you. These all feed into the master control. Another control, facing the main studio, is being finished. It will duplicate the master control in every detail. For testing their own records and listening to those of others, the Pauls have installed Presto turntables, with Pickering arms and cartridges.

You can see from the photograph looking into the studio how deep and roomy it is. Mary stands behind the

*Les can sing, too, but only Mary's voice is heard on their recordings*





*In his shop, Les has a portable Ampex, and the machine he built himself to cut records*

glass partition facing the control room. She's singing and listening to Les's guitar on earphones, while he listens to her on his loudspeaker, plays her accompaniment, and handles the controls. The studio has been designed in accordance with the latest developments in sound techniques. The facing walls are not parallel, a fact that caused some difficulty at the outset, for one contractor refused to touch the job when he found out the walls weren't to form conventional right angles! The ceiling of the studio is finished with perforated Reynolds aluminum, but actually there are four separate and distinct ceilings. These, together with the overly thick walls, shut off all outside noises. You can't even hear rain on the roof, which would be very amazing, say, in a recording of *You Are My Sunshine*. The soundproof, honeycombed doors to and from control rooms, den, studios, and workshop are approximately six inches thick. One builder refused to have anything to do with such massive portals. He just wouldn't hang them. "Only place for doors like those," he's quoted by Les as saying, "is in a butcher shop."

Another fellow who has helped with all the technical business is Wally Kamin, husband of Mary's sister Carol. Kamin plays bass, too, and appears with Les and Mary on all their theatre engagements. So does Carol, but you never see her. She's back stage at a mike of her own and, since her voice is amazingly like Mary's, she often sings with Mary to give the multiple-voice effect. When Les and Mary appear on a TV show, a recording is usually played, while Les and Mary sing silently in exact simulation. Les wants to follow this procedure so that the original sound of their Capitol recordings will not be changed. After all, it would be relatively impossible to duplicate some of those recordings save in the complex fashion that they were made. Here's how *Walking and Whistling Blues* was done, for example:

A different kind of sound effect, a new approach had been agreed upon. So, since they can record from anywhere in the Paul home, the controls were set and the Ampex tape recorders were started rolling. Then, while Wally walked back and forth on the tile floor of the bathroom

and Les was in the kitchen whistling, Mary played guitar in the living room. Came out neatly, too, as you know if you've heard the record.

There is also a small broadcasting station in the house, so that Les can test his records against the conditions under which they will be most actively exposed. Thus, they will play a new record and listen to it on a portable radio in the kitchen, or in the car radio while driving around the neighborhood. An extremely close check is kept of the setup for each recording, so that the Pauls can immediately duplicate, if they so desire, the exact conditions under which it was made originally.

Of course, all this would never have been possible had Les Paul been anything but a guitar player. The guitar, you see, is the perfect instrument for the multiple-recording technique, because a guitar can simulate so many other instruments. The right combination of voice and guitar can even be made to sound exactly like an organ. Actually, Les and Mary have unlimited recording possibilities, as there are



*Looking from the control room into the studio. Here are two of their eight Ampex recorders, and such equipment as to delight any hi-fi enthusiast*

endless combinations of voice and guitar. Les sums it up neatly: "If I'd been a bass player, I'd be dead."

The development of the latest model of the Les Paul guitar has taken years of hard work and experimentation. This has been necessary for two solid reasons: An unamplified guitar won't play loud enough, while an amplified guitar tends to distort the true sound of the instrument. Someday Les hopes to achieve the perfect wedding, but for

*Concluded on page 56*

# FROM REBECKS TO RECORDS

## *Part 2: How the Tape Recorders and Phonographs Are Encouraging Interest in Music, Changing Public Tastes, and Altering Listening Habits*

By OLIVER DANIEL

A FEW YEARS AGO, when CBS still had its superb orchestra, two symphonies by Raff were performed on Sunday afternoons: the *Leonore Symphony* and the *Forest Symphony*. Curiously, these two works elicited more audience mail than almost any other works that had been heard on the series. Another work, a symphony by a remarkably gifted German Romanticist who is almost unknown now, was rediscovered by Bernard Herrmann and played on the same series of broadcasts. It was a symphony by Hermann Goetz—a real masterpiece. A composer who was regarded as the first of the second best composers was Ludwig Spohr, who wrote nine symphonies, innumerable overtures, concertos, and operas. His *Spring Symphony* is a composition of unmistakable beauty. A *Spring Symphony* by still another composer, the American John Knowles Paine, is a work that future record collectors might enjoy, although concert goers will doubtless never have a chance to hear it.

There is one giant who may be classified as a modern, a romantic or, by some, a classical composer. He is Ralph Vaughan Williams. Although he is becoming well represented in the LP catalogues, he has not touched the probable popularity he will achieve. His visit to the U. S. will surely help. Collectors who have not discovered them already should find pleasure in his *Flos Campi*, the *Fantasy on Dives and Lazarus*, and his *Concerto for Harmonica and Orchestra*. The two latter are as yet unrecorded.

What of the works of Field that so strongly influenced the writings of Chopin? Or the piano works of Max Reger, which are as highly charged with romanticism as any works of the period?

Recently neglected to the point of absurdity is Roy Harris, who remains one of the titans of American music makers. His *Third*, *Fifth*, and *Seventh Symphonies* should become staple works on any record collector's shelf. The new wave of interest in the music of Harris is welcome indeed.

Among the yet unrecorded works that would be eagerly received, my own choice would include: the *Christmas Festival Overture* by Nicolai Berezowski; *For the Fallen*, and a brilliant, solidly *American Suite* from "The Devil and Daniel Webster" by Bernard Herrmann; antiphonal music for many orchestras or groups playing simultaneously by Henry Brant, who is now represented by a *Symphony* and a *Saxophone Concerto*; music from the zarzuela *The Wind Remains* by Paul Bowles; the *Cotillion Suite* and operatic fragments by Douglas Moore. On the distaff side, Peggy

Glanville-Hicks will achieve more plaudits; her opera *The Transposed Heads*, her *Three Gymnopédies* and a *Harp Sonata* have all been recorded by major companies. To enumerate all of the composers who have works that should be recorded would be to make a new catalog. But quite a number of new names will be found high on the list of records which will be bought and cherished by collectors of the future.

As new as interplanetary travel is the tape music of Otto Luening and Vladimir Ussachevsky which will startle, disturb, delight, please, annoy, and irritate listeners according to their whims. New, too, is the work of west coast composer Harry Partch, who makes music on instruments of his own invention including the Diamond Marimba, the Kithara, the Harmonic Canon, and a set of Cloud Chamber Bowls which are made from the cut off tops of large chemical supply bottles suspended on strings or wires. He has divided the scale into 48 different intervals which adds somewhat to the basic complexity of the art.

A far cry, all of this, from the earlier days. Perhaps, by surfeit or contrast, we shall be led back again to a time for Rebecks!

In the field of opera the terrain is plowed deeply. Of Verdi, Puccini, Massenet, Wagner, and even Strauss there is little that has not been recorded almost exhaustively. What then remains? Glück, for example. There is still much of his music to be discovered. And of Rameau, there is almost an entire catalogue to be explored. So too with Handel. That fantastic creator was almost indefatigable. And then Meyerbeer. Frankly, I know little of his work, but should a man once so famous be now so ignored?

One work that piques my curiosity is an opera of Granados that was performed at the Met with howling success in 1915-16. It was an opera with the Midas touch indeed, and Granados, distrusting banks, wrapped his pure gold profit around him in a money belt after being paid for its performance. Then, with a lot of other less well-heeled passengers, he went to the bottom of the ocean on a torpedoed ship, the *Sussex*, on March 24, 1916. The opera, "Goyescas", is a sensuously beautiful one. Even the piano pieces, upon which the opera was based and which have been recorded, are sonorously beautiful, but hardly as colorful as the opera. I know of no recent performance in America of this opera except a CBS broadcast (which I produced) when Maria Kurenko sang the *Maiden and the Nightingale*, which concludes with an almost near-eastern melisma. Pianists might regard it merely as a pretty virtuoso cadenza. They should have their heads examined!

There are other operas by Granados that I know only by the titles "Petarca", "Foliet", and "Maria del Carmen." He also wrote many zarzuelas. I am certain that my

*Concluded on page 65*

# HI-FI Music

# RECORD and TAPE REVIEWS

By OLIVER DANIEL, PEGGY GLANVILLE-HICKS, DAVID HALL, ROBERT PRESTEGAARD, FRED REYNOLDS

ORCHESTRAL MUSIC

**WALTON: Portsmouth Point** 2  
**Overture; Siesta; Scapino** 2  
**BACH (arr. Walton): The Wise Virgins — Ballet Suite** 1  
 London Philharmonic Orchestra under Sir Adrian Boult  
 London LL1165 12"

England's William Walton won his first taste of international fame in the '20's with his boisterous *Portsmouth Point Overture* based on the Rowlandson print. *Siesta* and *Scapino* are minor but enjoyable items of Waltoniana. Walton's ballet score, arranged from Bach cantata movements, is a delight — especially his treatment of *Sheep May Safely Graze* and *Herzlich Thut Mich Verlangen*. Affectionate and warmly colored performance, coupled with London *Jfer* sound at its best. *DH*



**LALO: Symphonie Espagnole** 2  
**CHAUSSON: Poème** 2  
**RAVEL: Tzigana** 2  
 Arthur Grumiaux violin, with the Lamoureux Orchestra under Jean Fournet  
 Epic LC3082 12"



The combination of three of the most appealing items of the French violin-and-orchestra repertoire lends this disc a very special attraction. Grumiaux is a superb fiddler, whose brilliance of execution is balanced with fine musicianship. The substance of the Lalo, the lyrical passion of Chausson, and the fiery pyrotechnics of Ravel's gypsy piece comprise just about an ideal program of its type. No complaints about the recording either! *DH*

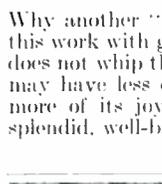
**BLOCH: Schelomo — Hebrew Rhapsody** 1  
**LALO: 'Cello Concerto** 1  
 Tibor de Machula with the Hague Philharmonic Orchestra under Willem van Otterloo  
 Epic LC3072 12"



*Schelomo* still remains Ernest Bloch's masterpiece, and by far the most exciting and beautiful work ever written for cello and orchestra. The Lalo *Concerto*, which could have been written by Schumann had he been born a Frenchman, is full of lovely things, and has some powerfully moving pages undeservedly neglected in concert performance. Hungarian-born Machula delivers mighty convincing solo performances, backed up by fine orchestral collaboration and about the best recording we've heard yet from Epic. *DH*



**WAGNER: Die Götterdämmerung — Dawn and Rhine Journey, Death and Funeral Music; Tristan und Isolde — Prelude and Liebestod** 1  
 3  
 2  
 Paris Orchestra under Carl Schuricht  
 London LL1074 12"



This recording is notable for the excellent concert arrangement which gives us the *Götterdämmerung* music as a coherent and uninterrupted tone poem, and by Schuricht's fine sense of the Wagnerian style in both this and the *Tristan Prelude* and *Liebestod*, which gives us the substance without the heaviness. The one flaw here is the French brasses, which are scarcely Wagnerian in sound nor impeccable in intonation. Good recording, however. *DH*

**BEETHOVEN: Symphony No. 6 in F Major, Op. 68 ("Pastoral")** 1  
 1  
 1  
 Detroit Symphony Orchestra under Paul Paray  
 Mercury MG 50045 B 12"

Why another "Pastoral"? This time for good reason. Paray has infused this work with great vitality and spirit. He does not confuse the issue. He does not whip the orchestra in a sadistic frenzy to add vitality. While this may have less of the Viennese spirit than some others, it certainly has more of its joy. Detroiters should be proud. Mercury has achieved a splendid, well-balanced sound without artificial echo. *OD*



**STRAVINSKI: L'Histoire du Soldat** 1-2-2  
**Octet for Wind Instruments** 1  
**Symphonies of Wind Instruments** 1  
 Orchestra under Igor Stravinski  
 Columbia ML 4964 12"



This is about as authentic a rendering of *L'Histoire* as one could wish for. Discs of any of this composer's output are a *must* for collectors who plan a representative library of 20th century music, and the composer's special style of interpretation is the correct one for purists. *L'Histoire* here offered is a splendid performance. *The Octet* and the *Symphonies for Winds* are not so evenly excellent as pieces, but performances are fine. *PGH*

## RATINGS OF CLASSICAL MUSIC

The following explanation of the Record Ratings which accompany the Record Reviews is given so that you will understand exactly the significance of the three numbers which appear at the left of each review.

### COMPOSITION (Top Number)

- 1: Outstandingly Important**  
 Indicates that the composition is one of the composer's best works, or that it is outstanding in a particular class of music. This rating is an unusual distinction.
- 2: Important**  
 This rating indicates that the composition is only a little below the No. 1 level.
- 3: Excellent**  
 A composition which merits representation in a

library of the composer's works, or in a collection of that particular music.

### ARTIST or ORCHESTRA (Middle Number)

- 1: Outstanding Performance**  
 Indicates an exceptionally fine performance by a top-ranking artist or orchestra. This rating is an unusual distinction.
- 2: Important Performance**  
 An excellent performance by one of the top-ranking artists or orchestras.
- 3: Excellent Performance**  
 A recording well worth owning and recommended for purchase, by an artist or orchestra of ability deserving of public recognition.

### RECORDING QUALITY (Bottom Number)

- 1: Outstanding Realism**

Representing the highest present attainments in acoustic and recording techniques.

### 2: Excellent Quality

Slightly below No. 1 rating because of minor faults in the acoustics or recording, or because the noise is considered somewhat above the minimum currently attainable.

### 3: Acceptable Quality

Representing the current average of the better LP records.

**R:** Indicates an original 78 now re-issued as an LP record.

**Important Note:** Records which are rated below No. 3 as to the composition, artist or orchestra, or recording quality are not ordinarily reviewed here. However, the omission of a record does not mean that it was rejected, as it may not have been submitted to MUSIC AT HOME for review.

**THOMSON: Filling Station** 2-3  
**KAY: Western Symphony** 2  
 New York City Ballet Orchestra 2  
 under Leon Barzin  
 Vox PL 9050 12"

*Filling Station* is one of the works that established Thomson as an American Dada composer of fun and whimsy. As a theatrical score it's marvelous, for the composer has a sure fire sense of theatre; as a piece to listen to, this disc is not wholly satisfactory. From his work, Kay is a slick arranger and no composer. The music would go over big as background music to an Elks Convention in some Western two-horse town.  
 PGH



**FRANCK: Symphony in D Minor** 1  
 NBC Symphony Orchestra 1  
 under Guido Cantelli 1  
 RCA Victor LM-1852 12"



Cantelli certainly peeps up this old chestnut, and his intensity infuses a new life. This symphony probably receives more completely humdrum performances than any in the entire repertoire, yet with Cantelli's verve, one cannot but listen anew, to him and to it, with fresh ears for the music. This work was recorded in Carnegie Hall, New York City, and easily represents one of the finest acoustical efforts to date by RCA Victor. PGH

**SIBELIUS: Symphony No. 2 in D, Op. 43** 2  
 Members of the NBC Symphony Orchestra under Leopold Stokowski 1  
 Victor LM-1854 12"

It is easy to see why this symphony remains the most popular of all Sibelius symphonies, for it contains a tremendous scope of mood and imagination, combined with singable melodies. Stokowski understands the essence of this music, he shares this knowledge with the listener, and he draws rich tone and beautiful playing from the members of the NBC symphony. It is apparent that much has been gained from the conductor's friendship with the composer. A rich, satisfying performance. RP



**RACHMANINOFF: Piano Concerto No. 2 in C Minor, Op. 18** 1  
 Leonard Pennario, the St. Louis Symphony Orchestra under Vladimir Golschmann 3  
 Capitol P-8302 12"



There are more inspired recordings of Rachmaninoff's *Second Piano Concerto*, the composer's own and the Rubinstein (both Victor), but the playing here is worth your attention simply because it is a commendable performance by a man who may some day become one of our top ranking artists. Pennario has a large tone and a technique many a pianist has reason to envy. It complements the Rachmaninoff. Unless you are a stickler for perfection, you will enjoy listening to this record. RP

**BORODIN: Symphony No. 2 in B Minor** 2-3  
**TCHAIKOVSKY: Suite No. 1 in D Major, Op. 43** 1  
 New York Philharmonic under Dimitri Mitropoulos  
 Columbia ML 4966 12"

Borodin wrote his second symphony during those same years when he was composing his unfinished opera, *Prince Igor*, and it is wholly natural that this work reflects much of the spirit of the other. A study of Borodin's life will convince you that it was a miracle that he got anything written, much less this symphony. Tchaikovsky's work is light and airy; this is its initial major recording. Mitropoulos gives both works a faithful, brilliant interpretation. FR



**DEBUSSY: La Mer and Iberia** 1  
 NBC Symphony Orchestra under Arturo Toscanini 1  
 RCA Victor LM-1833 12"



Both of these great works were recorded some time ago by Toscanini, and have been released by RCA Victor with "Enhanced Sound". This in itself is slightly superficial, but who will argue with the Master when he is applying his particular magic to that magic which was created by the superb tone-painter, Debussy? Just as Toscanini captures Debussy completely, so has Debussy captured completely the rolling surge of the sea and the rhythmic, colorful life of Spain. FR

**TCHAIKOVSKY: The Sleeping Beauty, Op. 66** 1  
 Andre Kostelanetz and his Orchestra 3  
 Columbia ML 4960 2

Since Mr. Kostelanetz has been so successful with his Columbia LP's of *The Nutcracker* and *Swan Lake*, this album could have been predicted faithfully by those folks who always have Notre Dame losing to Southern Methodist. As a matter of fact, Mr. Kostelanetz is quite as successful in his collaboration with Mr. Tchaikovsky as were Terry Brennan and Ralph Guglielmi. In comparison, you must first rate this with the complete *Sleeping Beauty* by Dorati and the Minneapolis Symphony. FR



**Starlight Encores** 2  
 Hollywood Bowl Symphony Orchestra under John Barnett 2  
 Capitol P8296 12"



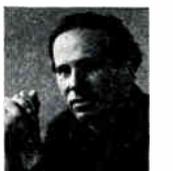
This is bound to be an enormously popular LP, as well it should be. The set includes Ponchielli's *Dance of the Hours*, Liszt's *Hungarian Rhapsody No. 2*, Tchaikovsky's *Andante Cantabile* and *Marche Slave*, Saint-Saens' *Danse Macabre*, and Offenbach's *Orpheus in the Underworld*. The over-all feeling of the recording is one of open spaces and fresh air, and Mr. Barnett conducts his orchestra with a great deal of spirit and vividness. Playing is crisp, warm, sharp, and sound is splendid. FR

**The Family All Together** 3  
 Boston Pops Orchestra under Arthur Fiedler 1  
 RCA Victor LM-1879 12"

A trite title and a tremendously trite album liner by an Alice Beaton, we somehow have the great impression that this album was designed to sell albums and not "to give your whole family a relaxed good time". The music runs the gamut from Debussy's *Clair de Lune* to a rollicking arrangement of *Pop Goes the Weasel*, which, for a moment, I thought was being played by The Firehouse Five Plus Two. On this record are many things for many people, and most of them are fine. FR



**RESPIGHI: Roman Festivals and Church Windows** 3  
 Minneapolis Symphony Orchestra under Antal Dorati 1  
 Mercury MG 50046 12"



This disc brings to completion the recordings by Dorati of the Roman Cycle from the pen of Italy's Ottorino Respighi. It is an unusual, dynamic, widely-disparate, sensitive work, and offers a galaxy of remarkable sounds for your hi-fi set. In the finale of *Roman Festivals*, for instance, 13 players are working over the percussion instruments. In both pieces are spots of beauty as well as striking passages of supreme energy. Both orchestra and recording are brilliant. FR

**CONCERTOS**

**PIJPER: Piano Concerto** 3  
**HENKEMANS: Violin Concerto** 2  
 Hans Henkemans piano, Theo Olof 2  
 violin, with the Amsterdam  
 Concertgebouw Orchestra under  
 Eduard van Beinum  
 Epic LC'3093 12"

**MOZART: Piano Concerto No. 2**  
**14 in E-flat (K. 449)** 1  
**R. STRAUSS: Burleske for Piano 3**  
**and Orchestra** 1  
 Friedrich Gulda with the London  
 Symphony Orchestra  
 London LL1158 12"

**BACH: Clavier Concertos — No. 2**  
**3 in D Major & No. 5 in F Minor** 3  
 Isabelle Nef with the Oiseau Lyre 3  
 Chamber Ensemble under Pierre  
 Columbo  
 Oiseau Lyre 50042 12"

**BETHOVEN: Piano Concerto 2**  
**No. 2 in B-Flat, Op. 19** 1  
**MOZART: Piano Concerto No. 1**  
**15 in B-Flat, K. 450** 1  
 Solomon, the Philharmonia Or-  
 chestra with Otto Ackermann  
 Victor LHMV 12 12"

**TCHAIKOVSKY: Piano Con- 1**  
**certo No. 1 in B-Flat Minor** 3  
**GRIEG: Piano Concerto in 3**  
**A Minor, Opus 16** 3  
 Friedrich Wührer, Pro Musica  
 Symphony, Vienna  
 Vox PL-9000

**DVORAK: Concerto in B 3**  
**Minor, Op. 104 for 'Cello and 3**  
**Orchestra** 3  
 Andre Navarra, 'Cello, with the  
 New Symphony Orchestra of  
 London under Rudolf Schwarz  
 Capitol P-8301 12"

**MENDELSSOHN: Concerto in 3**  
**E Minor, Op. 64** 1  
**TCHAIKOVSKY: Concerto in 2**  
**D Major, Op. 35**  
 Zino Francescatti, N. Y. Philhar-  
 monic under Mitropoulos  
 Columbia ML 4965 12"

Almost nothing is known of contemporary Dutch art-music in this country. For that reason this disc, featuring music by the late Willem Pijper and by his pupil, Hans Henkemans, is of more than passing importance. Both composers might be described as cosmopolitan moderns — Pijper having a somewhat French orientation in his idiom, and Henkemans leaning in the direction of Viennese ultra-chromaticism. Top-notch orchestra, and good solo playing, backed by full-blooded recording. *DH*



At long last we have a first-rate recorded performance of one of the best of Mozart's "middle period" piano concertos, as well as young Friedrich Gulda's finest concerto performance on discs thus far. The early Richard Strauss opus seems a little superfluous here but can be enjoyed for the display piece that it is. Mozart fanciers will find this record a "must". Perhaps Anthony Collins' direction of the orchestra is a trifle heavy, but in every other way it is a superlative recording. *DH*

The D Major Concerto here will be recognized as Bach's keyboard version of his *E Major Violin Concerto*, while the slow movement of the *F Minor* is musically identical with the exquisite *Sinfonia* for oboe and strings that introduces the *Cantata No. 186*. Both performances and recording of these works can be described as adequate and a bit heavy-handed. However, this disc is still of more than passing interest to Bach fanciers. *DH*



Recorded in Kingsway Hall, London, by the celebrated English pianist, Solomon, this music is a joy to hear. The Beethoven *Concerto* is one of that composer's early and most Mozartian works. Solomon plays it with perception. As for the Mozart, it demands range and subtlety of nuance which is fully realized. This is Mozart as it should be — crisp and fleet. Interesting to note that Solomon played his first Mozart in Queen's Hall at the age of eight. Live, clear sound. *RP*

Two familiar works are given an almost overwhelming interpretation with Mr. Wührer doing everything in a big, powerful style. The result is music full of sound-and-fury, revealing an assured technique, but lacking the mellow poetry of Grieg, and the more tender moments of the Tchaikovsky. Check the Rubinstein Grieg and the Horowitz Tchaikovsky (both Victor) for more intuitive playing. Recorded sound matches the explosive performance and, as such, it's quite an experience. *RP*



This is an agreeable, but in no way a great, recording. Andre Navarra plays his cello part most sympathetically, but the recording as a whole, both from the standpoints of performance and engineering, seems to be under a faint cloud. Conductor Rudolf Schwarz leads the New Symphony Orchestra of London through its paces with considerable skill, but the romantic spirit of Dvorak is on the tepid side. *OD*

**Guitar Music of Spain 2**  
 Laurindo Almeida 1  
 Capitol P 8295 12" 1



Almeida is a guitarist accurate and expert of fingering and intonation, rich and pure of tone, who seems happier with the poetic and nostalgic moods of his instrument than with the miniature moods of savagery that the instrument's esthetic also includes. There are as many kinds of touch and temperament upon the guitar as on the piano, and Almeida is a fine example of his own particular type. Pieces are by Albeniz, Falla, Segovia, Terroba, Sor, Tarrega, and Turina. *PGH*

**NIELSEN: String Quartet No. 4 3**  
**in F Major, Op. 44** 2  
**VAGN HOLMBOE: String 1**  
**Quartet No. 3, Op. 48**  
 The Koppel Quartet  
 London LL 1119 12"

Until such recordings have been available, the Scandinavian boys have not been able to take their place properly in the world of music. Both of these works are excellently played and have a refreshing sound. The modernism of the Scandinavian composers seems a bit tame compared to their American counterparts. Nielsen has written far more distinguished music — his symphonies, for example — yet this work is an excellent addition to the list of his recorded compositions. *OD*



**Elizabethan and Jacobean 1**  
**Music** 2  
 Alfred Deller counter-tenor, Des- 2  
 mond Dupre lute, Gustav  
 Leonhardt, harpsichord  
 Bach Guild BG539 12"



Airs by Shakespeare's contemporary, John Dowland, and instrumental pieces from the pen of Morley and Giles Farnaby are the real gems on this disc. Those who have never heard a truly fine counter-tenor (male alto) are in for a surprise here; for the sound and manner of performance can only be described as unearthly — and exquisitely lovely, as in John Bartlett's *Of all the Birds that I Do Know*. Recording, first-rate. *DH*

**CHAMBER MUSIC**

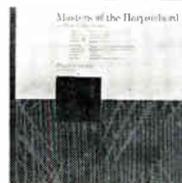
**BACH: Partita No. 2 in D Minor** 1  
**Sonata No. 1 in G Minor** 1  
 Both for unaccompanied violin 2  
 Nathan Milstein  
 Capitol P-8298 12"



The Bach *Partita No. 2* for unaccompanied violin is surely one of the most unusual compositions in the library of violin music. It takes an exact knowledge of violin technique — and that is precisely what Milstein has. At times you seem to hear a whole chorus of violins, and the closing *chaccone* movement — a set of thirty-three extraordinary variations — is executed in flawless style. Side two offers some really splendid playing of the Bach *Sonata No. 1*. Audio is fine. *RP*

**Masters of the Harpsichord** 3  
**(17th & 18th Century)** 2  
 Ruggero Gerlin 2  
 Oiseau Lyre 50043 12"

Italian and German repertoire of the baroque era is featured here; and though this disc is mainly of interest to connoisseurs of harpsichord music, it should be pointed out that the rich-textured *Toccata* of Azzolino della Ciaia and the colorful *Balletto di Mantua* by Gaetano Greco highlight the Italian side, while the pieces by Ferdinand Richter, Johann Froberger and Handel make the German half of this disc well worth the listening. Performance and recording, good. *DH*



VOCAL MUSIC

**LEONCAVALLO: I Pagliacci** 1  
**(complete opera)** 1  
 Giuseppe Di Stefano, Maria Callas, 1  
 Tito Gobbi, Orchestra and Chorus 1  
 of the Teatro Alla Scala, Milan, 1  
 under Tullio Serafin  
 Angel 3527 2-12"



There are enough recordings now of Leoncavallo's masterpiece to satisfy even the most meticulous of opera lovers. Performance-wise and musically this new release compares most favorably with the London, RCA Victor, Columbia, and Cetra versions, and it may well be that sonically anyhow it tops them all. Di Stefano, Callas, Gobbi, Nicola Monti, and Rolando Panerai are quite satisfying in their starring roles, and the chorus and orchestra are vigorous and broadly rich. *FR*

**BRAHMS: A German Requiem,** 1  
**Op. 45** 3  
 Frankfort Museum and Frankfort 2  
 Opera Chorus and Orchestra  
 under Georg Solti  
 Capitol PBR8300 2 12"

Brahms's *German Requiem* still stands with Beethoven's *Missa Solemnis* as the most sublime monument of German oratorio since J. S. Bach. Therefore a first genuine "hi-fi" recording of this music has been eagerly awaited. The sound is happily of high excellence, the performance never less than good, but we miss the "weightiness" of the pre-LP Karajan reading (Columbia) and the soloists are likewise no match for Schwarzkopf and Hotter in the Viennese performance. *DH*



**VERDI: La Traviata (complete)** 1  
 Renata Tebaldi, Gianni Poggi, 1  
 Aldo Protti, others. Chorus and 1  
 Orchestra of Accademia Di Santa  
 Cecilia, Rome, under Francesco  
 Molinari Pradelli  
 London LLA 26 3-12"



The competition in complete recordings of operas is getting to be merry indeed. In the over-all picture, none has had the continuous advantage of London's superlative sound. While the price of these opera packages is such that you should compare before buying, this new recording of "La Traviata" is quite magnificent, and as such is highly recommended. Renata Tebaldi again gives an outstanding performance, and the rest of the cast is nothing less than noteworthy. Satisfying, brilliant, colorful. *FR*

**Spanish Songs** 3  
 Nan Merriman, mezzo-soprano 2  
 with Gerald Moore, pianist 1  
 Angel 35208 12"

Miss Merriman is not only delightful to look at, but she also has a voice of infinite charm. The many songs she sings in this collection were written by Manuel De Falla, Frederico Mompou, Gustavo Pittaluga, Xavier Montsalvatge, Joaquin Turina, and Fernando Obradors. Largely these are relatively simple folk songs of Spain, and I would say that on the whole this LP is pretty much for the connoisseur. Gerald Moore accompanies Miss Merriman with obvious sincerity. *FR*



**GANNE: Les Saltimbaques** 3  
**("The Strolling Players")** 1  
**(Complete operetta)** 3  
 Janine Micheau, Geneviève Moizan,  
 others with Chorus and Orchestra  
 under Pierre Dervaux  
 London TW91044/5 2-12"



If you love France, the French language and truly French operetta, this new London *International* release, featuring a delightful stage piece by the composer of the famous *Père de la Victoire* march is something not to be missed. The whole thing is done with such tremendous verve and flavor as to make one feel in the very heart of France. In short, this is wonderful entertainment in the authentic French manner. The recording, apparently done from public performance, is adequate. *DH*

**BIZET: The Pearl Fishers** 3  
**(complete opera)** 2  
 Pierrette Alarie soprano, Léopold 2  
 Simoneau tenor, Choir and  
 Lamoureux Orchestra under Jean  
 Fournet  
 Epic SC6002 2-12"

All the fine taste and not a little of the melodic genius of Bizet shines through the pages of this opera of his pre-*Carmen*, pre-*L'Arlesienne* days; for where his contemporaries had treated exotic eastern subjects shabbily indeed, Bizet made the most of the opportunity to write lovely and tender music. The French singers here are new to us, but extraordinarily fine — Simoneau particularly. Well-turned performance, clean and well-balanced sound. *DH*



**PUCCHINI: Manon Lescaut** 2  
**(complete opera)** 2  
 Renata Tebaldi soprano, Mario del 2  
 Monaco tenor, Fernando  
 Corena bass, with St. Cecilia  
 Chorus and Orchestra  
 London LLA28 3-12"



This opera by the young Puccini of the period, just antedating *La Bohème*, is a more hot-blooded and passionate treatment of the Manon story than the more famous opera of Massenet. If you like juicy Italianate melodies sung to a turn (definitely so in this instance by Tebaldi and Monaco) with recorded sound to match, and with excellent choral and orchestral backing in the bargain, then this album is definitely for you! *DH*

**VERDI: A Masked Ball** 1  
**(complete)** 1  
 Soloists, Robert Shaw Chorale 2  
 and NBC Symphony Orchestra  
 under Arturo Toscanini  
 RCA Victor LM-6112 3-12"

During a particular section in the recording of this superb opera, Maestro Toscanini turned to his strings and asked: "Have you never had a rendezvous with a beautiful woman?" After that, the section played to his satisfaction. This little story is clearly significant of the great pains that Toscanini took in the preparation of *A Masked Ball*. The results are magnificent, a marvelous recording of an opera which must be considered one of Verdi's best. Packaging and notes are excellent. *FR*



**VERDI: Te Deum** 1  
**BOITO: Mefistofele: (Prologue)** 1  
 Toscanini conducting the NBC  
 Symphony Orchestra, with the  
 Robert Shaw Chorale and the  
 Columbus Boy Choir  
 Victor LM-1849 12"



This magnificent Toscanini recording, taken from the Sunday broadcast of March 14th, 1954, three weeks before the Maestro announced his retirement, gives you reason to wonder who will be doing such things in the future. Both epic works receive here the kind of playing and singing they demand — which is music rewarding to the mind as well as the ear. Excellent reproduction and an attractive album by Victor help to make this another deserved Toscanini tribute. A must. *RP*

**SONGS OF MUSSORGSKY  
 AND RACHMANINOFF** 2  
 Boris Gmirya, Alexander Pirogov, 3  
 Mark Reizen, Serge Lemeshev,  
 and Nadezhda Oboukhova  
 Vanguard VRS-6023 12"

Vocal artists of the U.S.S.R. offer a sampling of songs by Mussorgsky and Rachmaninoff with the result pretty much what you might expect. The actual voices are less noteworthy than the manner in which the songs are interpreted. Observe Oboukhova's haunting way with Rachmaninoff's *Thou My Beloved Harvest Field*, and Lemeshev's feeling for *Spring Waters*. Pirogov's singing of *The Goat* and *The Revel* is the best of the Mussorgsky. An interesting record, this, with fair sound. *RP*



**Maria Callas Sings** 1  
 Symphony Orchestra of Radio- 2  
 televisione Italiana, Turin, 3  
 under Arturo Basile  
 Cetra A-50175 12"



Hearing Callas on record makes you want to see her on stage; for she has that rare quality of being able to project herself vocally and emotionally into each role. Callas sings the Mad Scene from "I Puritani"; the *Liebsteod* from "Tristan and Isolde"; selections from "La Traviata", including *Ah, fors' e lui*; and the *Suididio* from "La Gioconda". The Wagner is disappointing vocally and acoustically, but the rest is exciting opera, reasonably well recorded, and worth your time. *RP*

**VERDI: A Masked Ball** 1  
 Ferruccio Tagliavini, Giuseppe 3  
 Valdengo, Maria Curtis Verna,  
 Pia Tassinari; Orchestra and  
 chorus of Radiotelevisione  
 Italiana under Angelo Questo  
 Cetra B-1249 2-12"

We are fortunate indeed that Verdi ignored, as much as possible, the ludicrous plot to this opera and went his own merry way composing rollicking tunes, dramatic arias and thrilling love duets. Unfortunately, this is not a top-rate performance even though it does have its moments, notably Verna's first aria in Act Three and Valdengo's singing of *Eri Tu*. Tagliavini is persuasive at times, but not at his best. By all means compare the Toscanini version (Victor). Sound is not bad. *RP*



**Famous Tenor Arias** 2  
 Cesare Valletti with the Orchestra 1  
 Lirica Cetra under Arturo 2  
 Basile  
 Cetra A-50176 12"



This is a beautifully sung set of arias that seems in sequence to resemble a number of rich desserts. Mozart, Donizetti, Massenet and Verdi are all tasteful, minus disfiguring mannerisms. This is outstanding among records of this class of music, most of which are substandard. Balances between Valletti and the orchestra are fortunate; Basile conducts without struggling, and the engineers have succeeded in transferring some mighty pleasant sounds. *OD*

**GOULD: Dance Variations** 3  
**MENOTTI: Ballet Suite from** 1  
**Sebastian** 1  
 Symphony Orchestra under  
 Leopold Stokowski  
 RCA Victor LM-1858 12"

Menotti and Gould should burn candles to their pet saints in gratitude for the combination of happenings here. Both scores are given the Stokowski treatment, and sound better than they have at any time before. Stokowski has made both works gleam. The fi is very hi this time. Being a better work, the Menotti opus seems more outstanding. Its performance has a vitality that one might associate with the youngest of conductors. Stokowski here has "sock" value. *OD*



**La Valse** 2  
 Leonard Pennario, piano 1  
 Capitol P 8294 12" 2



Selections include *La Valse* and *Valses nobles et sentimentales* by Ravel; *Naila Waltz* by Delibes; and *Sweetheart Waltzes* from "The Gypsy Baron" of Johann Strauss, Jr. These latter pieces were transcribed by E. Dohnanyi. Mr. Pennario's controlled exuberance and crystal clarity bring a point to this recording which the pieces alone might not immediately suggest. For pianistic waltzes, let's buy these. They are really enjoyable. *PGH*

**The Art of the Organ** 1  
 E. Power Biggs 1  
 Columbia SL-219 2-12" 1

Columbia has sub-titled this: "A magnificent experience in high fidelity". It is all of that and much more. A superb musician, Mr. Biggs recently visited 20 of Europe's most famous concert halls and cathedrals, playing music by Purcell, Bach, Sweelinck, Pachelbel, and Buxtehnde. You will delight in the deep thunder of the 32-foot basses of Trondheim Cathedral, the bell-like highs of Neuenfelde, the rich sound of the Weingarten organ, and so much more. This is Great! *FR*



KEYBOARD MUSIC

**RATINGS OF JAZZ AND  
 POPULAR RECORDS  
 AND TAPES**

It must be obvious to everyone that popular music, jazz, and music of the theatre and motion picture, cannot be rated in the same manner as classical music, save for the audio quality of the records. Therefore, the following explanation is given so that you will fully understand the significance of the three numbers which appear at the left of reviews of popular, jazz, theatre and motion picture albums:

**COMPOSITION (Top Number)**

**1: Extraordinary**  
 Indicates that the collection is of superior character, both from a standpoint of material and

programming. Assignment of this rating means an unqualified recommendation.

**2: Good**

In general, the collection is excellent, but additions or substitutions might have made the work more attractive and more lastingly enjoyable.

**3: Satisfactory**

A collection that is highlighted by only a few numbers, yet the over-all is quite acceptable. This might often apply to collections that have a limited appeal, yet are important to those who specialize in specific types of music. It might often apply to collections of historic importance where the artistic performance is the primary factor.

**ARTIST or ORCHESTRA  
 (Middle Number)**

**1: Extraordinary**

Indicates a superior performance throughout the collection. Assignment of this rating means an unqualified recommendation.

**2: Good**

In general the performance is excellent, save that there are minor imperfections or breaches of artistry.

**3: Satisfactory**

To all intent and purposes an enjoyable recording, yet one that does not qualify for No. 2 rating.

**RECORDING QUALITY  
 (Bottom Number)**

**1, 2, 3:** The same as for classical recordings.  
**R:** Indicates a re-issue.

MISCELLANY

**Genevieve** 2  
Orchestra under Ted Tyler 3  
Columbia CL 633 12" 3



There is something indescribably French about Genevieve. Her songs could be used just as advantageously as travel posters, for they bring back thoughts of chestnut trees, Montmartre, and many of the pleasant things one associates with Paris. Admirers of Genevieve have developed a sentimental attachment for her. Those who have not become indoctrinated will find this record a most agreeable one. It is music to think of Paris by. *OD*

**Ballads and Folk Songs** 2  
**Folk Songs in the Irish** 2  
**Language** 2  
The Irish Festival Singers  
Angel ANG 65016 12"

These Irish singers are excellent; they sing with pathos and glee the tunes of their countryside, and their voices have that curious, touching color peculiar to Celtic singers. Most of the arrangements or accompaniments would be better omitted, for only the unspoiled folk — by instinct — and truly gifted creators — by great art — can add to such antique materials without infringing their character. Art work is lovely. *PGH*



**Angel in the Absinthe House** 3  
Songs by LaVergne 3  
Cook 1081 10" 2



In a casual, throaty, throw-away style, LaVergne sings. *One Scotch, One Bourbon, Lover Man, Hey There*, and others. Frankly, your reviewer didn't care much about the whole thing — at first. But he came back and has since decided that it must have been for the *One Scotch, One Bourbon, One Beer*. (Make it gin.) Most of the songs have been sung better, the record has some street noises, and is certainly not recommended to everyone. Try it though. If you come back, there'll be a reason. *RP*

**Marlene Dietrich at the Café de Paris** 3  
Marlene Dietrich 2  
Columbia ML 4975 12" 2

This comes with one of the most delectable color photographs that you have ever seen, and the scent of a beguiling perfume. Here is Miss Dietrich at the swank Café de Paris in London, on opening night, with Noel Coward's eloquent introduction. And the erudite Britishers loved her. Music this is not, and it couldn't matter less. Here is a splendid showcasing of one of the most fabulous ladies of our time. Hers is an unique and exciting gift. *FR*



**Olga Coelho Sings Songs of Brazil and Other Lands** 2  
Olga Coelho soprano 1  
Vanguard VRS7021 10" 1



It is good to have an absolutely first-rate long-playing disc by this gifted and sensitive Brazilian artist, who here demonstrates her prowess not only in folksong material but in art-songs of Manuel de Falla and Alessandro Scarlatti to telling effect. Her Spanish folk songs are the most moving of all — the one entitled *Ojos morenicos* is absolutely breath-taking to ear and heart alike. The recording is fully equal to the sensitive artistry displayed throughout the whole of this disc. *DH*

**Jack of Diamonds & Other Folk Songs and Blues** 2  
Brother John Sellers, Sonny Terry, Johnny Johns 2  
Vanguard VRS7022 10" 2

Brother John Sellers, though an excellent folk singer, is no replacement for the late Leadbelly; but the incredibly moving harmonica work of Sonny Terry is by itself worth the price of this record. We were especially stirred by *Every Day I Have the Blues*, the celebrated spiritual *Nobody Knows the Trouble I've Seen*, *Let Us Run*, and *Lonesome Road*. Recording is well up to Vanguard's customary high standard. *DH*



JAZZ

**Artie Shaw and His Gramercy Five (Vol. 4)** 3  
Artie Shaw clarinet, Hank Jones piano, Joe Puma guitar 2  
Clef MG C'645 12" 2



The fast numbers are treated in what to our way of thinking is a stereotyped and conventional manner; but in the intimate slow-tempo pieces (*Love of My Life, That Old Feeling, Someone to Watch Over Me*) the warmly personal element of Shaw's music-making shines through to superb advantage. We would recommend this LP especially for those who want to dance to music that will stand up also as legitimate jazz. Solid and brilliant recorded sound throughout. *DH*

**Shelly Manne & Russ Freeman** 2  
Russ Freeman piano, Shelly Manne percussion 1  
Contemporary C'2518 10" 1

Here is modern "chamber jazz" at its very best, as rendered by musicians who have the most complete and utter know-how when it comes to synthesizing intuition and intellect. The A-side, with such titles as *Sound Effects Manne, Everything Happens to Me* and *Billie's Bounce*, is much the more stimulating of the two. The recording can be truly described as *very hi-fi* in absolutely the best sense of the word! *DH*



**Count Basie Dance Session (Vol. 2)** 3  
Count Basie and his Orchestra 2  
Clef MG C'647 12" 2



Save for some modern touches, much of this LP takes me back to the big-band jazz of the late 1930's; but while the insistent brassiness of the fast numbers irritates, the finesse of more lyrical items, such as *Two for the Blues, Slow but Sure* and *She's Just My Size*, serve as a happy reminder of the fundamental excellence of Basie's musicianship. Brilliant recorded sound — perhaps too brilliant at times. *DH*

**Tonal Expressions** 1  
Donald Shirley piano 1  
Cadence CLP 1001 12" 1

Mr. Shirley is terrific! He is a pianist in every sense of that oft-misconstrued word, and this LP gives him full opportunity to display his wonderful talents. Here is a superb blend of classic and jazz, fine numbers played with tasteful class and refinement. The man's shadings and phrasings are oftentimes phenomenal, and his virtuosity seems to have no bounds. I strongly urge everyone who loves music to hear this LP. You will find it enormously entertaining. *FR*



**B. G. in Hi-Fi** 1  
 Benny Goodman and His 1  
 Orchestra 1  
 Capitol W 565 12"



Somewhere in November of '54, Benny Goodman got together a group of executives who remembered how swing used to go. The album they made doesn't quite come up to some of the records Benny cut in '36 or '38 or '42 — you take your year. But it does prove that a group of splendid sidemen can get together under a leader who is without a peer, and pour out music that swings, that excites, that sounds like it was right and entertainment all at the same time. Wonderful! *FR*

**Jazz Potpourri** 1  
 Red Nichols, Rosy McHargue, 2  
 Carl Halen, Earl Foutz, and 1  
 Skiffle Session  
 Audiophile 24 12"

There are four magnificent pieces by Red Nichols and his band, and on three of them old Joe Rushton blows up a storm. The McHargue, Halen, and Foutz opera are acceptable, while the lovely skiffle ride on *Tight Like This* is terrific. It's zany, knocked-out stuff, with enormous rhythm, and humor that is both happy and honest. It was recorded by Nunn in Dayton at the end of a regular recording session, and there's everything in it including a battered, old tin can. *FR*



**The Hawk in Flight** 3  
 Coleman Hawkins 2  
 RCA Victor LJM-1017 12" R



Tenor saxophonist Coleman Hawkins has been a big star ever since 1925 and Clarence Williams' Blue Five. This collection features later day Hawkins, from 1939, when he was very much a traditional jazz great, on through '46 and '47 when he became vastly progressive. The "Hawk" seems more at home in the traditional spirit, and those playing with him then were more musician than the later day crowd of high-blowing experimenters. The traditional bands are best. *FR*

**Brubeck Time** 2  
 The Dave Brubeck Quartet 3  
 Columbia CL 622 12" 1

This has the distinction of being both the best and the midmost of all previous Brubeck albums. Best for the sound. Midmost for the playing. There is something about a live performance that stimulates Brubeck's group. Walled in a studio, the sparks seem to be all in the equipment. The guys play together wonderfully well, but that enormous fire of creativeness that has become so integral a part of Brubeck's music is somehow lacking. "Jazz Goes to College" is still Brubeck's best LP. *FR*



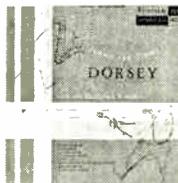
**The Kenton Era** 3  
 Stan Kenton and His Orchestra —  
 Capitol WDX-569 4-12" R



The Stan Kenton story in words and music, from *Artistry in Rhythm*, cut in Balboa in 1941, to *Zoot*, which was taped from a concert at the Alhambra, Paris, in 1953. It's a real mess of notes, proving that Kenton is a restless creator who, from a swinging beginning, has progressed towards a frustrated, enthusiastic diffusion. The album's value — entertainment is negligible — is the complete picture it gives of one of jazz's most important and outspoken figures. *FR*

**The California Ramblers** 2  
 Tommy and Jimmy Dorsey 2  
 Riverside RLP 1051 10" R

The personnel of this band of the Roarin' 20's included the Dorseys, Red Nichols, Arnold Brilhardt, Adrian Rollini, Stan King, and Bobby Davis, and was under the leadership of Ed Kirkeby. The songs they played were *Sidewalk Blues*, *Clonentine*, *Stockholm Stomp*, *Third Rail*, *When Erastus Plays His Old Kazoo*, and *Cheatin' On Me*. The Ramblers were more of a jazz band than a dance band, and the music they produced stands the test of time well. An interesting LP of early big band jazz. *FR*



**Buddy DeFranco and Oscar Peterson Play George Gershwin** 1  
 Orchestra under Russ Garcia 1  
 Norgren MGN 1016 12" 1



It speaks highly of Buddy DeFranco, the musician and the man, that after hearing Oscar Peterson play and getting to know him, he insisted the pianist be included in this album. And what an album it is! Wonderful Gershwin songs, including *Strike Up The Band*, *I Got Rhythm*, and *Porgy*; adept conducting by Russ Garcia; and superb sound that does justice to the classic clarinet and piano of DeFranco and Peterson. You'll treasure this album. Hard to find it this good these days. *RP*

**Lullabies in Rhythm** 2  
 Barbara Carroll 2  
 RCA Victor LJM-1023 12" 2

Once again April showers bring us an enchanting May flower named Barbara Carroll. Her second 12-inch LP for RCA Victor is nearly as superior as the first, released about this same time last year. It would be on a par, save that someone let her sing a couple of tunes — *I Love a Piano* and *By Myself* — and she has a voice like the March Hare. These are unpardonable interruptions in an otherwise continuous recording of cascading chords, deft interpretations, and delightful tunes. *FR*



**Swing Session: 1935** 2  
 Bunny Berigan with Gene 1-3  
 Gifford's Orchestra R  
 Wingy Manone with Adrian and  
 his Tap Room Gang  
 "X" LVA-3034 10"



Skip Manone and concentrate on Berigan. In 1935 the eminent arranger for the Casa Loma orchestra, Gene Gifford, organized an 8-piece band to make some swing sessions for Victor. Among those he hired were Bud Freeman, Matty Matlock, Ray Bauduc, Claude Thornhill, and the immortal trumpeter, Bunny Berigan. Give Gifford the credit for the arrangements; give Berigan the accolade for blowing forth so wonderfully that he and his mates made four numbers that are swing classics. *FR*

**Blowout at Mardi Gras** 3  
 Sid Davilla and Freddie Kohl- 3  
 man's band 3  
 Cook 1084 12"

The pace roars on like the Sante Fe Chief charging through Poopedout, Kansas. Kohlman and his boys were playing too much for the entertainment of the crowd the night Cook recorded them. After hours of New Orleans bottled delight, who really cares how good the jazz is as long as it is fast and loud. Well, sir, this jazz is fast and loud. Davilla has one clarinet passage that was taken practically note for note from Artie Shaw's *Concerto for Clarinet*. *FR*



**POPULAR**

**Dig Mel Henke** 1  
 Mel Henke Quartet 2  
 Contemporary C 5001 1



Contemporary has really done a remarkable job in recording this nifty group. Seldom have we heard a piano stand out on wax as Henke's does here. All of which is very, very all right, for Mel Henke is a pianist who uses all ten fingers. Backed enthusiastically by bass, guitar, and drums, Mel plays around with some of the best tunes in the popular catalog. His style encompasses a multitude of moods and tempos, and the over-all character is half-jazz half-pop. *FR*

**Dreams of Romance** 2-2  
**Love at First Sight** 2  
 Casanova and His Orchestra 1  
 Vox 770 & 760 10"

Here are suave melodies performed in the elegant continental manner of Casanova and his orchestra. Now, just who Casanova is I have no way of knowing. Certainly he can be no relation to that unsavory fellow who met his just end so many, long years ago. Obviously, it must be a pseudonym, a come-on, but that really couldn't matter less. For these are good albums of lush, romantic hi-fi melodies. Covers are pretty, too. *FR*



**Music to Remember Her** 1  
 Jackie Gleason and His Orchestra 2  
 Capitol W 570 12" 1



Frankly, here is the same old Gleason formula, but it listens with consummate ease. As in the other Gleason albums, this is a combination of warm, sirupy, smooth strings, and Bobby Hackett's velvet trumpet. Each melody flows into the next without a trace of rhythm change, so the whole forms a pattern of one continuous motion — slow motion to be sure, but enjoyable, romantic, and peaceful on the ears. Gleason's choice of numbers is superlative, as is the cover and fidelity. *FR*

**Sorta-May** 1  
 Billy May and His Orchestra 1  
 Capitol T 562 12" 1

The best record May has ever done, and one of the best, most humorous albums of dance music of the past several years. While the distinctive May style is very much in evidence, it has been deliciously embellished, principally by the addition of piccolo, flute, harp, and English horn. The songs are those that can take a splendid kidding and still come through in grand fashion. Underneath the humor is a basic, firm rhythm and a kind of smooth beauty. *FR*



**Swing Potpourri** 2  
 Red Dougherty Groups and the 4 2  
 Bel Quintet 1  
 Audiophile AP-23 12"



Some corking evergreens are swung easily by these two small groups, both of which have musical integrity though hardly any fame whatsoever. Ewing Nunn, who is all of Audiophile, states quite frankly that "the recording quality of this record, while not top Audiophile quality, is good, and will compare favorably with 'high-fidelity' records now being issued." It does! We find the whole affair simply delightful, a splendid parlay of music, sound, and nostalgia. *FR*

**I Love You** 2  
 Eddie Fisher with Hugo Winter- 1  
 halter's Orchestra 2  
 RCA Victor EPB-1097 10"

The great popularity of the Fisher-Winterhalter combination is unquestioned and justly deserving. Fisher sings with rich emotion, and Winterhalter backs him with warm tones. Songs are *So in Love*, *Pretty Baby*, *My One and Only Love*, *I Can't Give You Anything But Love*, *The Girl that I Marry*, *I Surrender*, *Dear, What Is This Thing Called Love?*, and *Let's Fall in Love*. Art work is just what the girls ordered, and it all wraps up to pleasant listening. *FR*



**Les and Mary** 2  
 Les Paul and Mary Ford 1  
 Capitol W577 12" 1



It has been almost two years since the last LP by Les and Mary, and for these two talented artists that is much too long a time. In the matter of length (16 songs) this is their best album, and it is the best for sound, too. It is on a par with their others in selection of numbers. Top bands to my ears — *Falling in Love with Love*, *On the Sunny Side of the Street*, *Just One of Those Things*, *Swing Low, Sweet Chariot*, *Some of These Days*, and *Tico Tico*. You couldn't ask for more brilliant entertainment than this. *FR*

**The Banjo Kings Go West** 3  
 Dick Roberts tenor banjo, Red 2  
 Roundtree plectrum banjo, Ernie 2  
 Anderson tenor banjo  
 Good Time Jazz L26 10"

The insistency of the banjo, like that of the harpsichord, is such that a little goes a long way. Yet *Home in San Antonio*, *You Are My Sunshine*, and *Home on the Range*, which offer highly unusual sonorities with plucked strings, percussion, bowed-string bass, and even drum sticks on banjo strings are endowed with singular fascination from both musical as well as audio viewpoints. A curiosity, this disc, but a wholly legitimate and often thoroughly interesting one! *DH*



**Silk Stockings** 2  
 Original Broadway Show 2  
 RCA Victor EDC-1016 12" 2



This is easily the season's best recorded Broadway show, largely because Cole Porter's fine score sounds better on records than those of other Broadway productions. I wouldn't put it in a class with "Oklahoma" or "South Pacific" or "Show Boat", but surely several of Porter's tunes will linger around happily for years to come. Much of the album's enjoyment is due to the colorful work of its stars, Hildegard Neff and Don Ameche. *FR*

**THEATRE & MOTION PICTURE**

**Hit the Deck!** 1  
 MGM Musical Picture 2  
 MGM X287 12" 2

Jane Powell, Tony Martin, Debbie Reynolds, Vic Damone, Ann Miller, and Kay Armen singing such splendid Vincent Youman's favorites as *Sometimes I'm Happy*, *More than You Know*, *I Know that You Know*, *Why, Oh Why*, and *Hallelujah!* None of the performances is particularly definitive, but together they blend into a pleasant whole. MGM should have another rousingly successful musical with this film, and the album should ride right along in its wake. *FR*



**Archy and Mehitabel — Echoes of Archy** 1  
 1  
 2  
 David Wayne, Carol Channing, Eddie Bracken, with George Kleinsinger and the orchestra  
 Columbia ML 4963 12"

A back-alley opera and a back-alley cantata based on the stories created by the late humorist Don Marquis. On both, David Wayne is starred as the narrator, and he is superb. With him on *Archy and Mehitabel* are Eddie Bracken as Archy, and Carol Channing, who is perfectly marvelous as Mehitabel. Corking as everything is, best of all is the score by George Kleinsinger, a score that is artful, original, and zesty. Here is a delightful work. FR



**Plain and Fancy** —  
 Original Broadway Show 3  
 Capitol S603 12" 2



Like so many shows that are successful from the other side of the footlights, this just fails to come across on record. While the cast, headed by Richard Derr, Barbara Cook, and David Daniels, is competent, the music, written by Arnold Horwitt and Albert Hague, is quite a bore. Actually, there isn't a singing number in the whole show, nothing very clever nor very bright. Good though it may be on Broadway, "Plain and Fancy" is pretty dull on the record. FR

**Romeo and Juliet** 1  
 —  
 2  
 Scenes from the J. Arthur Rank film; music by Roman Vlad; conducted by Lambert Williamson  
 Epic LC 3126 12"

Hearing this record immediately after seeing the superb movie, it evokes more than it should. This soundtrack, separated from the screen, seems at times halting and at other times confused. All told it is a rather botched up lot of yardage from the whole track, resulting in a set of unrelated scenes that resemble both a necktie bargain counter and isolated fragments of a jigsaw puzzle with the greater number of pieces missing. OD



**Broadway '55** 2  
 Fred Waring and his 2  
 Pennsylvanians 2  
 Decca DL 8099 12"



The Waring entourage sails through whatever task it tackles with the same professional air of competence as the New York Yankees, in those years before the Yankees lost the pennant. Here are an even dozen tunes from "Fanny", "Silk Stockings", and "House of Flowers", some of which are quite good, especially *All of You* and *Silk Stockings*, while others hardly deserve the affection lavished on them by Mr. Waring and his wonderful Pennsylvanians. FR

**Fine Arts Quartet** 1  
 7½ speed, dual track 2  
 Webcor 2922-3 1

An extremely delightful interlude of light music. Leonard Sorkin, and Joseph Stepansky violinists, Irving Limer viola, and George Sopkin cello, in a chamber concert of Mendelssohn's *Scherzo from E Minor Quartet*, Borodin's *Nocturne from D Major Quartet*, Schubert's *Moment Musical*, Raff's *The Mill*, Tchaikovsky's *Andante Cantabile*, Boccherini's *Minuet from Quintet in E Major*, and the Finale of Haydn's *Lark Quartet*. Not startling, but all clean and clear. FR

**BEETHOVEN: Symphony No. 5** 1  
 Zurich Tonhalle Orchestra 3  
 Speed 7½, dual track 3  
 Swain 604

This Zurich production of Beethoven's magnificent symphony left me rather cold. I had the impression that the orchestra was very much in a hurry to get the whole thing over and to get on home to supper. At no time, seemingly, does the orchestra exert the wonderful power so vital to the playing of this work. Nor can much be said for the actual recording of the tape. Here is a definitely mediocre affair that simply cannot stand the enormous competition. FR

**Organ Moods** 2  
 Adele Scott 2  
 7½ speed, dual track 2  
 Webcor 2922-7

For those of you who like good popular music blandly performed on an organ. Miss Scott chose to perform *Tea for Two*, *Cielito Lindo*, *Three Blind Mice*, *Won't You Come Home*, *Bill Bailey*, *Sea Chanty Medley*, *The Band Played On*, *Believe Me*, *If All Those Endearing Young Charms*, *I've Told Every Little Star*, *Sweet Genevieve*, and *Parade of the Wooden Soldiers*. This is pretty strictly background music, rather than anything to listen to with both ears. FR

**The Investigator** 2  
 3¾ speed, dual track 2  
 Recorded Tape of the Month —  
 Club 102

This will do absolutely nothing for your hi-fi machine, but then that's not the purpose. By now "The Investigator" has become so celebrated that any comment on its purpose seems mighty superfluous. The writing is sharp and vicious, the acting is excellent. The play can cause much more than stimulating argument if you happen to roll it for a group of folks, half of whom do not approve of Senator McCarthy's political philosophies and half of whom do. FR

**LENGSFELDER: Musical Notes from a Tourist's Sketch Book** 2  
 3  
 1  
 World Symphony Orchestra  
 7½ speed, dual track  
 Recorded Tape of the Month  
 Club 101



The sound of the Request record from which this was taken is good, and the tape boys have juiced it up even more. There is an echo in the music that wasn't there before, which I feel is an added attraction. The second and third time around, Mr. Lengsfelder's ten musical impressions take on a pleasant luster that isn't at once apparent in the first hearing. Still, they should not be listened to seriously, for this is not a serious type of music. FR

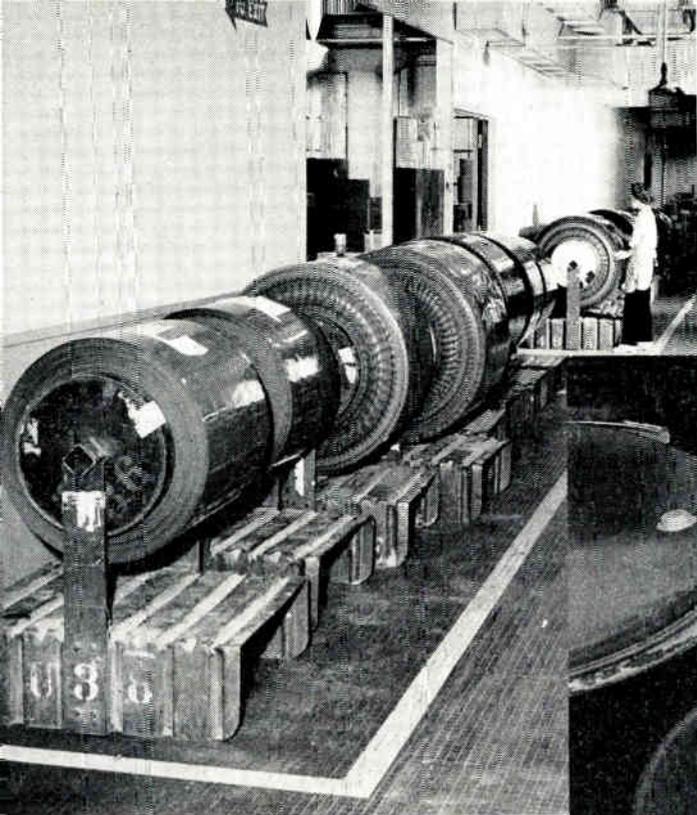


Fig. 2, above: At the Minnesota Mining & Manufacturing plant, wide rolls of cellulose acetate film are coated with iron oxide, then slit into tapes  $\frac{1}{4}$  inch wide

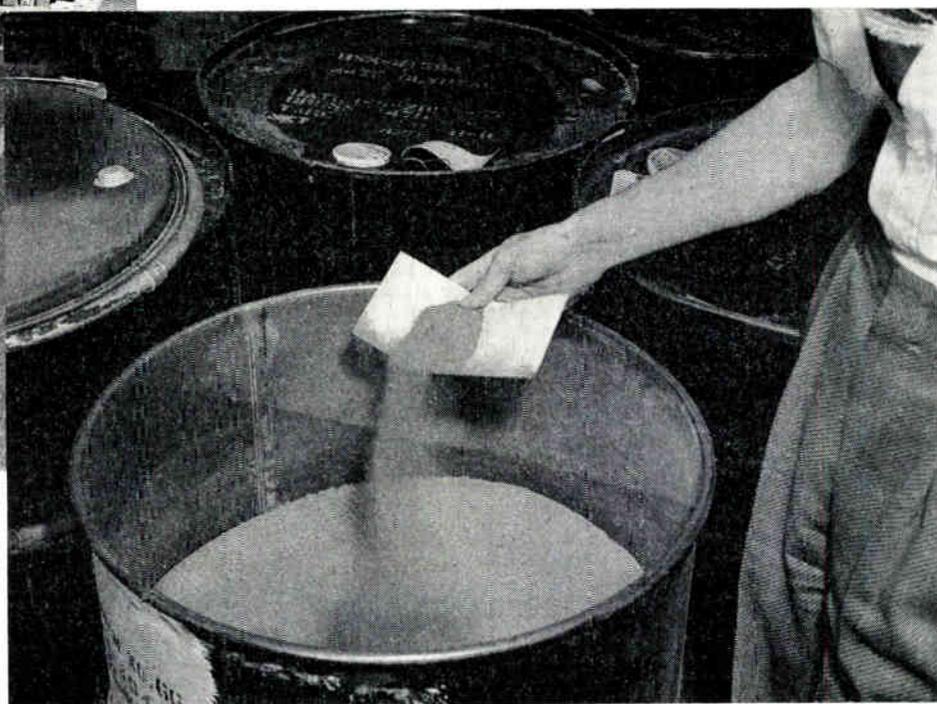


Fig. 1, below: Powdered iron, in the form of iron oxide, is used to coat magnetic tape with a uniform but microscopically thin layer. The particles are so fine that the powder feels softer than flour. Here is enough to coat thousands of feet of tape

## COMING UP: PRE-RECORDED TAPE

*Latest Methods Promise Pre-Recorded Tapes of Studio Playback Quality*

By JEANNE LOWE

A STEADILY increasing number of people are thinking about tape, and asking questions about its use: Just what is it, and what's in it for me? How does tape compare with discs? Will it make my record player obsolete? Is the time ripe for me to buy a magnetic tape recorder?

To a degree, tape is already in our homes because, for the last six years, virtually all music has been recorded originally on tapes. Then these master tapes are used to cut the lacquer master discs.

Tape took over for original recording because it removed the mechanical hurdle between original sound and the finished records. It can record and play back the full range of sound without distortion, or surface noise, and with the full volume range from *pianissimo* to *fortissimo*. Thus, direct reproduction from tape can give a wonderful sense of presence and liveness.

Tape can also provide a higher signal-to-noise ratio than discs. In terms of listening pleasure, this means that a tape recording can register the true value of the softest *pianissimo* passage without disturbing background noise that would be heard on records.

The greater flexibility and lower cost of tape for making masters also appealed to the recording engineers. Cutting masters with disc-recording equipment was expensive and cumbersome, limiting the types of recordings that could be made, and putting a strain on the recording artists. If a performer made a small mistake while recording on disc, the whole side had to be cut over, often at great cost. This caused the companies to be very cautious about taking on new recording artists.

High-quality, light-weight tape machines can be transported to Prades in Spain to tape the Casals festival, or set up in a New Orleans basement to record a jazz session. They could be taken on a safari to Africa to catch tribal rhythms in their native setting, or down to the ocean shore to document the pounding of the surf. It was also possible to go out and choose the natural acoustics desired, instead of creating them artificially in a studio. Indeed, tape made it highly convenient for Mohammed to go to the mountain.

Presented with this exceedingly versatile, inexpensive, and sensitive tape medium, dozens of new record companies sprang up, standard repertoires were expanded with a wealth of new material, and new performers were taped

*Fig. 3. Engineer Robert Kelly, of Audio-Video, operates five special Ampex recorders, making tape copies from a master tape on the playback machine at the left. Using two record heads, these machines copy two tracks simultaneously at four times normal playing speed, and operate at frequencies up to 60,000 cycles*



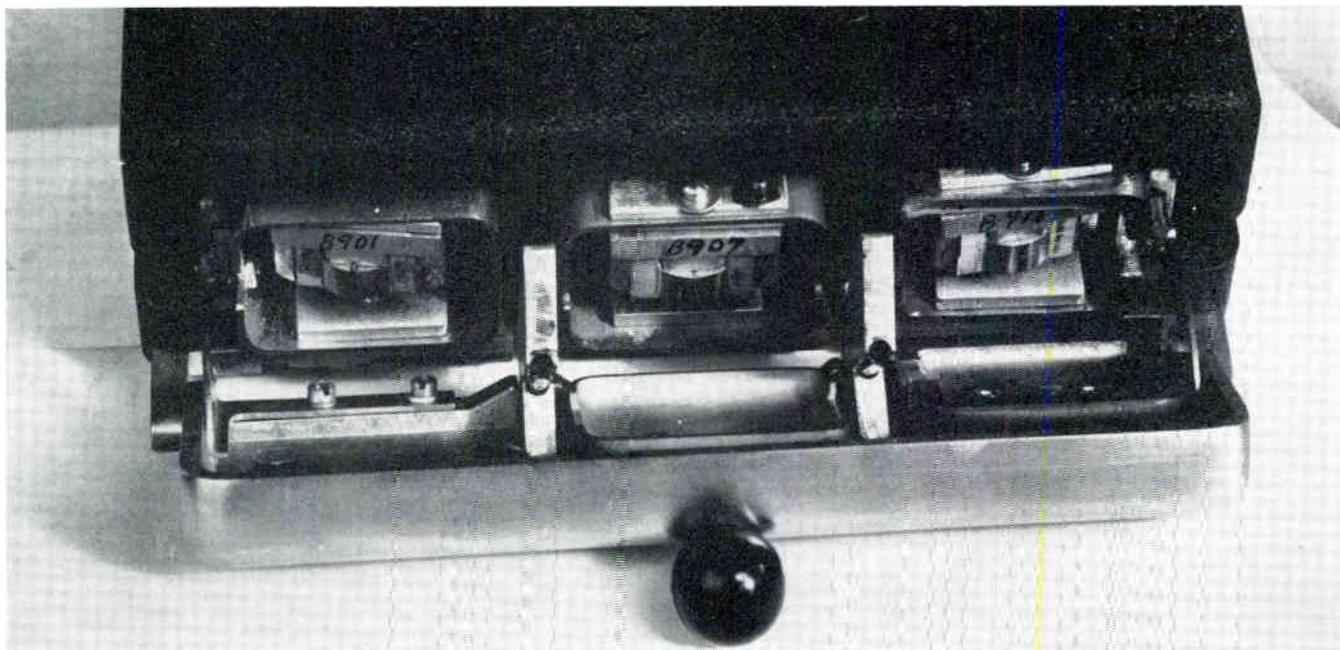
both here and abroad, bringing to the record-buying public a varied fare of recorded music never before possible.

Meanwhile, enthusiasm for hi-fi music at home began to sweep the country. The initial interest was in getting better reproduction from records.

Then, in 1954, technical improvements upped the performance of some of the less expensive tape machines, while manufacturers of professional equipment applied their know-how to making simplified, lower-priced machines. These instruments were flexibly designed to be

used with the hi-fi amplifiers and speakers already in home music systems. Recognizing the trend to tape, manufacturers of audio components started designing their equipment to accommodate recorder inputs and outputs.

With the growing interest in reproduction from tape, companies which had been cautiously eyeing the market for pre-recorded tapes decided it was time to get into action. Last autumn there were only two companies issuing music tapes for home entertainment. Today over a dozen concerns are in this field, including several of the leading



*Fig. 4. Heads in the Ampex recorders shown above have gaps only .00025 in. wide. Head at left records upper track; center head records lower track. Double heads at right, used to monitor both tracks, are connected to the instrument rack illustrated in Fig. 5.*

record companies with their rich repertoires. All the others are seriously contemplating the move to tape.

This sudden growth of music-on-tape was helped along by the development of new high-speed duplicating equipment which can make copies at 8 or 16 times normal speed, turning out up to 2,500 hours of taped music in an 8-hour day, and doing it so perfectly that the loss in fidelity from master to copy is so small you cannot hear it.

Making a tape copy of a tape recording is a startlingly simple matter, compared to the extremely delicate processes involved in the manufacture of discs. The photographs on these pages tell the story, right from the manufacture of the tape to the finished product.

The magnetic material on the tape is iron oxide, Fig. 1. The oxide particles are extremely tiny and uniform. In fact, they measure one micron or less, so small that if these particles could be lined up side by side, it would take at least 1,000,000 of them to make a row 1 in. long.

To produce high-quality tape, the oxide and the liquid binder must form a perfectly uniform coating on the cellulose acetate film used for the backing. This is essential in

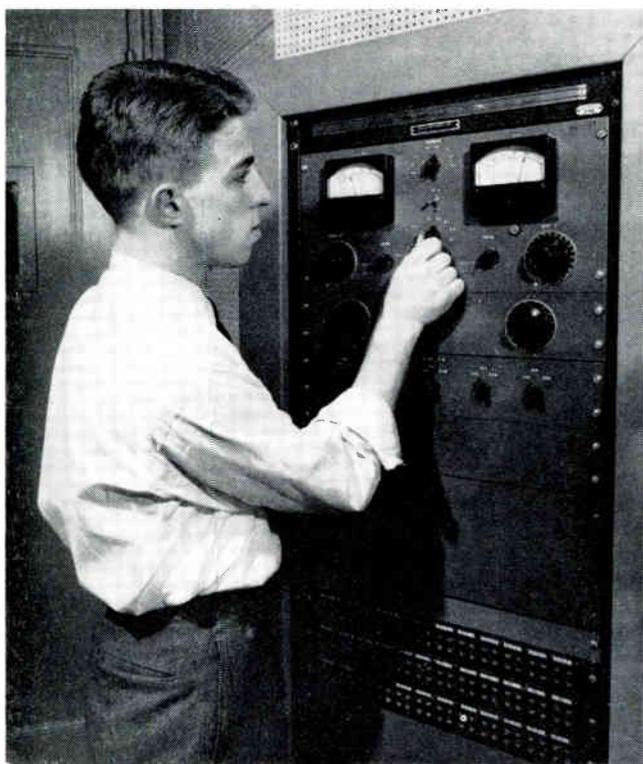


Fig. 5. Both channels on any one of the five recorders shown in Fig. 3 can be checked by the meters on this panel, or monitored from a loudspeaker

order to insure uniform response and output, and calls for the most exacting controls in the coating process. Fig. 2 shows jumbo rolls of coated film at one of the 3M plants, ready to be slit into tapes  $\frac{1}{4}$  in. wide, and wound on standard plastic reels for use on tape machines. The 5-in. and 7-in. reels are generally used for home equipment, and the 10-in. size for professional purpose.

Once the tape has been coated and reeled, the mechanical manufacturing stage is finished. Producing a pre-recorded tape, the counterpart of a phonograph record, is entirely an electrical process. That is, a master tape is run

through a playback machine, which, instead of being connected to a loud speaker, is connected to a recorder loaded with a blank tape. In that way a magnetic copy is made of the music recorded on the master.

In actual practice, copies are made of 3rd generation masters. That is, perhaps 6 copies are made of the master. Then each copy is copied 6 times, producing 36 3rd genera-

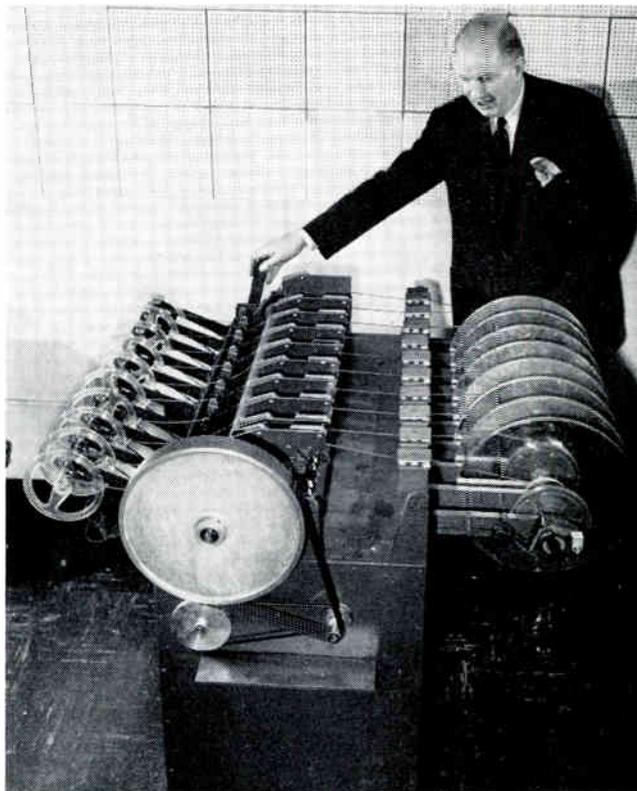


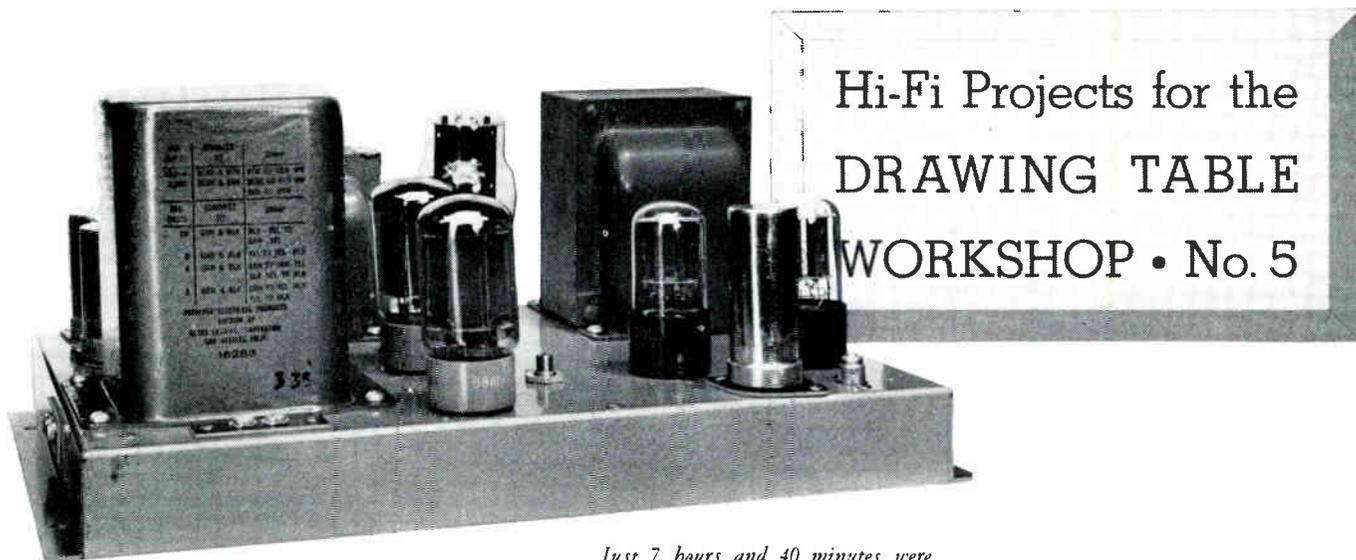
Fig. 6. This machine, developed by Minnesota Mining & Manufacturing and Toogood Recording, makes ten copies simultaneously

tion masters. These are still so perfect that the ear cannot detect any loss of audio quality, and each one can be used as masters for making thousands of copies, still without audible deterioration.

Fig. 3 shows the equipment used by the Audio-Video Recording Company for producing their pre-recorded tapes. At the left is a special Ampex playback machine, capable of reproducing frequencies up to 60,000 cycles. This feeds the five recorders, also designed to handle up to 60,000 cycles, on the right.

The reason for using special machines is that, in order to speed the copying process, the playback machine and the recorders run at four times the normal operating speed. Thus, a musical overtone of 15,000 cycles recorded on the master tape is actually played back at 60,000 cycles. And the recorders, also running at four times normal speed, must be capable of putting 60,000 cycles on the tape copies. Of course, when the copies are played back at their normal speed, what was recorded on them at 60,000 cycles will produce a 15,000-cycle tone.

To reduce the time required to make double-track copies still further, Audio-Video uses special heads to playback and record both tracks at the same time. In this way, one track is recorded forward, and the



*Just 7 hours and 40 minutes were required to assemble and wire this unit*

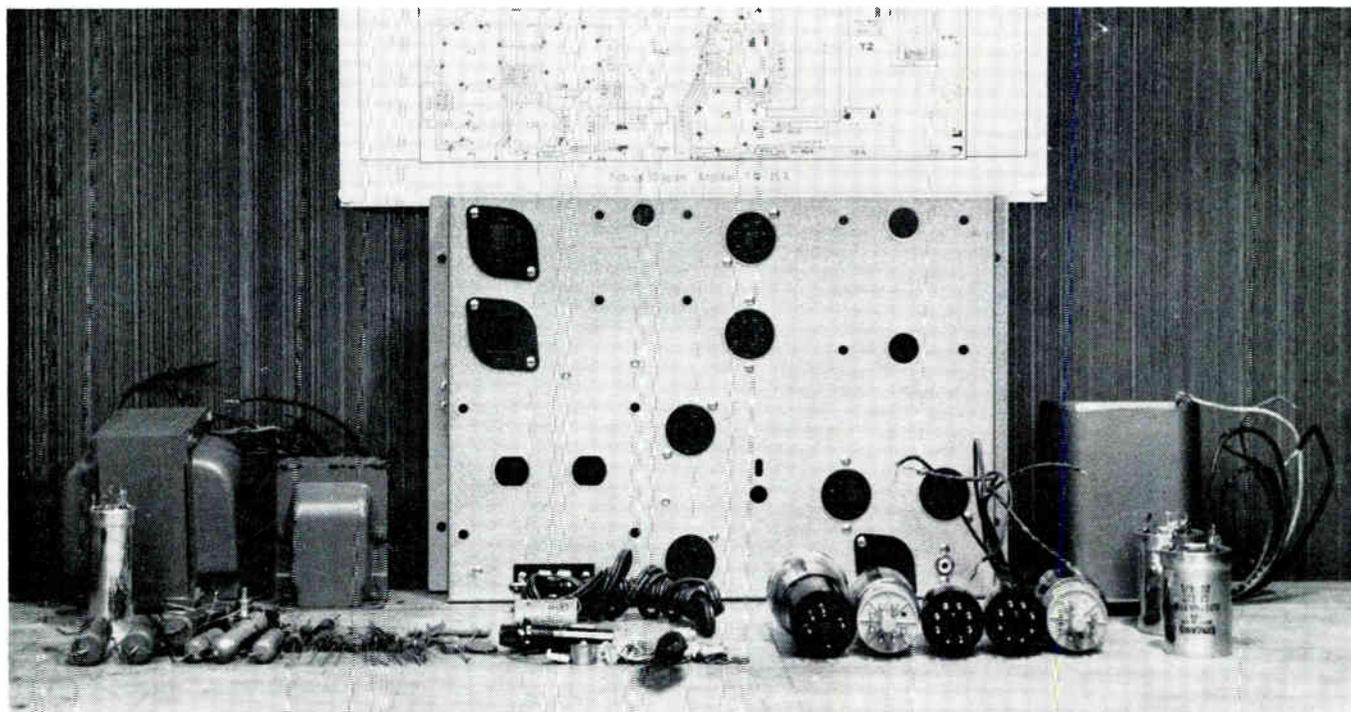
By JAN SYRJALA

IT IS QUITE a compliment to the companies furnishing kits for assembling audio equipment that this, the fifth Drawing Table Workshop Project, maintained the previous record by going together without a hitch, and working perfectly as soon as it was connected in an audio system.

Also, this experience should be reassuring to those who have thought about building some of their own equipment, but have been reluctant about such an undertaking. You might say that anyone who has assembled five different kits should be so expert that he ought not to make any mistakes. The writer, however, can only claim credit for following exactly, step by step, the instructions furnished with each kit. In fact, these jobs are presented as Drawing

Table Workshop Projects for the reason that they require neither expert skill nor special equipment. Any flat surface — a kitchen table will do nicely — is adequate as a “shop” if it will carry the instrument under construction, the simple hand tools needed, and a soldering iron. All the units described in this series were actually put together on an old drafting table.

The current project, a Techmaster TM-15A amplifier with a Peerless output transformer, differed in two respects from those preceding. First, the sockets, terminal strips, and wafers for mounting the electrolytic condensers were already rivetted to the chassis. Apparently, that was not always so, for the instructions detail the mounting of those parts. Second, there is only one picture diagram on which all the parts and terminals are identified, and the instructions simply list each part or lead, and the terminals to



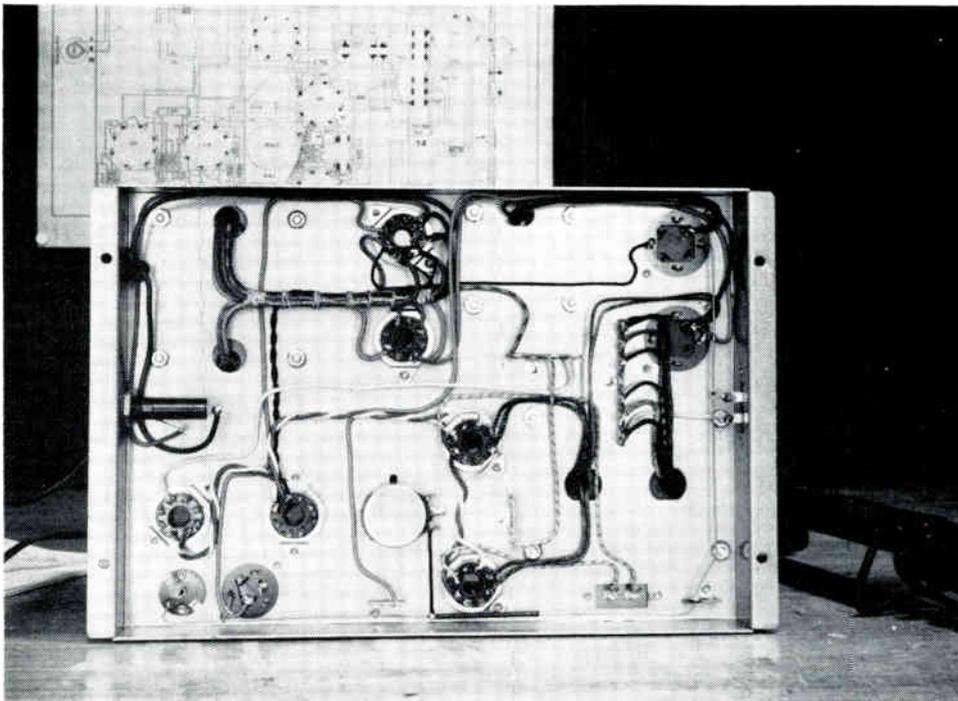
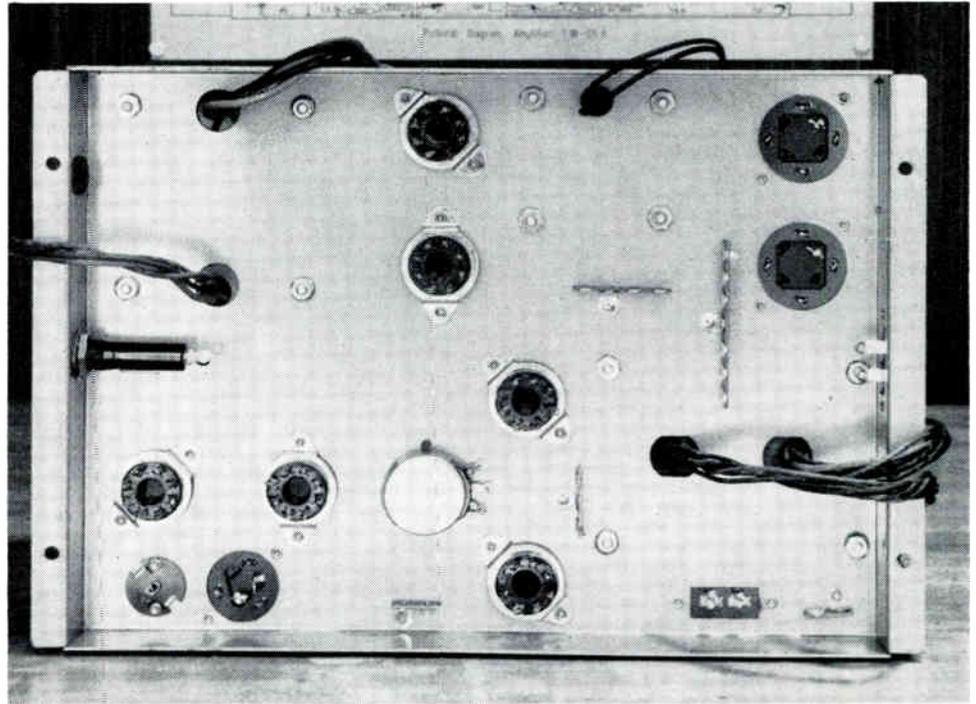
*Fig. 1. The kit of parts furnished for the Techmaster TM-15A amplifier. The sockets, terminal strips, and condenser wafers were already mounted*

which it is connected. This may be a little puzzling at first, but when you get the knack of it, the method is easy to follow. Fig. 1 shows the lineup of parts supplied in the kit.

The Techmaster TM-15A amplifier is planned to work

FIRST ASSEMBLY STAGE: As before, I had an assistant to read and check off the step-by-step instructions, and to pick out the parts as they were needed. The first part to be mounted was the fuse holder. I knew that there should be a rubber washer under the outside flange of this piece,

*Fig. 2. The underside of the chassis looked like this at the end of the first assembly stage. Leads coming through the chassis are from the output transformer, power transformer, and choke. It will help you to understand the picture diagram in the instruction book if you check it against this view, as you proceed with the wiring*



*Fig. 3. The first wiring stage only calls for making connections between the components that were on the chassis at the end of the first assembly stage. They can be seen in Fig. 2. Leads from the output and power transformers were tied up at this time to give the wiring a neat and tidy appearance*

with the TM-15P preamp, although it can be used in any audio system, and with any other preamp. However, if the TM-15P preamp is not used, leads must be brought out from terminals 6 and 7 of the cable connector on the amplifier chassis, and wired to an AC on-off switch. Here are notes made in the course of assembly and wiring, and the time on the successive stages of the work:

but the instructions didn't mention it, and when we couldn't locate the washer immediately, I put the fuse holder in place on the chassis, tightened the nut, and promptly cracked the plastic shell. Fortunately, I had another holder in a collection of spare parts. Then we found the washer, as we should have been patient enough to do in the first place, and it was used for the second holder.

The different colored leads from the power transformer didn't line up with the holes in the chassis according to the picture diagram, so I just pulled one group of leads through one hole, and the other group through the second hole. It didn't make any difference in the wiring, since the colors matched those listed on the diagram.

No reference was made to mounting the hum-control, marked D40 on the diagram, but we mounted it during this assembly stage. Fig. 2 shows the under side of the chassis at this point. *Time: 25 minutes*

**FIRST WIRING STAGE:** Step No. 1 calls for running a



*Fig. 4. This is the way to tie a knot in the line cord, after it has been put through the grommet at the side of the chassis*

length of bare bus bar from the upper right hand corner of the chassis, Fig. 3, down and across to the pin jack at the bottom left hand corner. To take the kinks out of the wire supplied, we held the ends with pliers, and pulled the wire until it stretched slightly. That made it perfectly straight.

We had no difficulty with the wiring instructions, but we did find that the lengths shown for the leads were not always exact. Therefore, we checked each one before cut-

ting it off, to make sure that we wouldn't come out short.

All the wiring done in this stage can be seen in Fig. 3. You will notice that we laced the transformer leads. That isn't necessary, but it keeps them all together, giving them a neat and tidy appearance.

Steps No. 12 and 13 call for putting the AC cord through a grommet in the chassis, and soldering the wires to the proper terminals. So that a sudden pull on the cord will not be transmitted to the terminals, a knot should be tied in the cord, inside the chassis. Fig. 4 shows the correct way to tie such a knot, after the two wires have been split apart. *Time: 3 hours, 15 minutes*

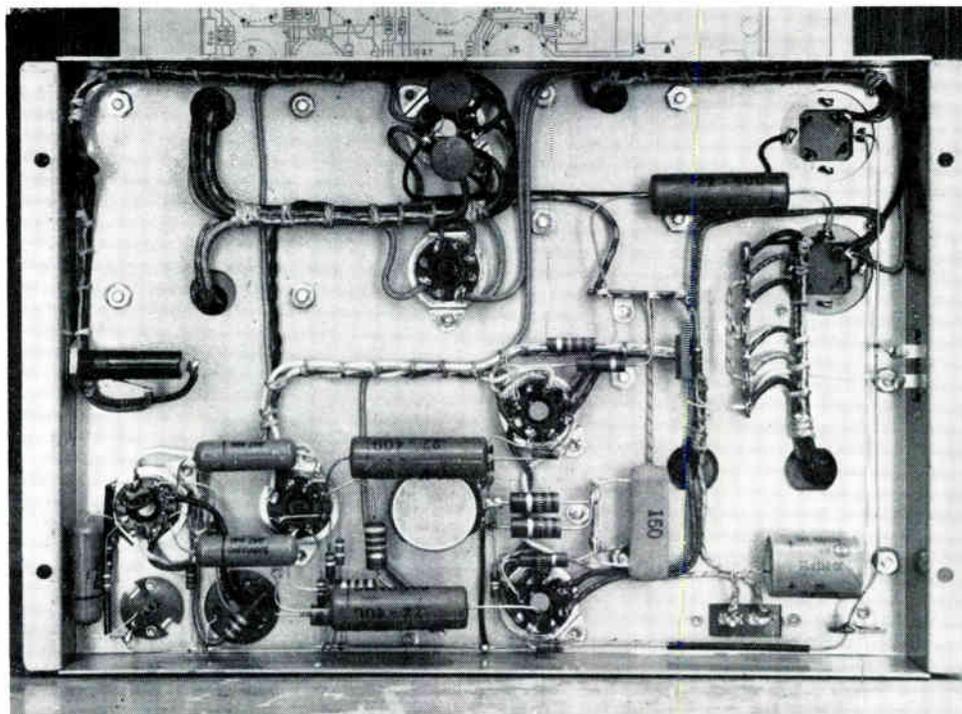
**FINAL ASSEMBLY AND WIRING STAGE:** All the last stage is devoted to putting on the small parts, and soldering to leads. They can be seen in Fig. 5, which shows the job completed. The work progressed without any difficulty, although we had to study the picture wiring diagram very carefully to avoid mistakes, as some of the parts shown on the drawing do not correspond exactly with the appearance of the parts furnished. On the drawing, the parts are only identified by the letters and numbers used in the instructions. It would have helped us if the names of the parts had been shown also, although that lack was not serious.

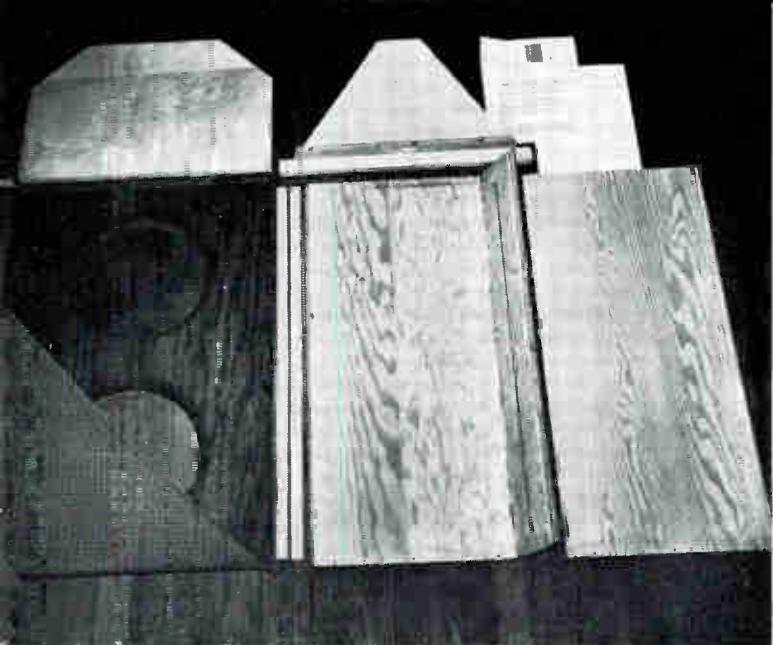
Only two speaker terminals were provided. However, Step No. 81 shows how to connect the terminal board under the chassis for an output impedance of 2, 4, 8, or 16 ohms. Since you might want to change the impedance at some future time, it would be smart to copy off the terminal combinations on a sticker, and put it on the under side of the chassis. *Time: 3 hours, 5 minutes*

**LACING THE WIRES:** The lacing of the transformer leads, Fig. 3, looked so attractive that we did the additional lacing shown in Fig. 5. You may be so impatient to get the amplifier installed that you won't wait to do this extra

*Concluded on page 66*

*Fig. 5. This picture, taken at the end of the final assembly and wiring stage, shows the complete amplifier, ready for use. Lining up the components not only makes them look more attractive, but helps to avoid confusion if you need to check back on the connections in case you find that you made a mistake*





# YOU CAN BUILD ONE LIKE THIS

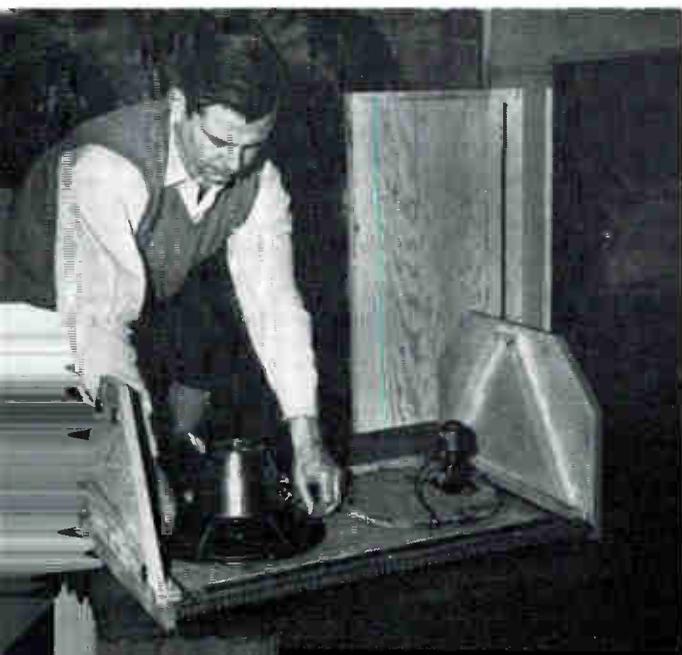
*Assembly of a Klipsch Rebel Corner Enclosure, Demonstrated by Jay Carver*

1. Top left: The Cabinart kit for assembling a Rebel 4. All parts are cut to size and drilled. Only tools required are a desk stapler and a screwdriver.

2. Top right: First step was to fasten fabric to the speaker-mounting board. Finishing strips will cover staples.

5. Left center: Bottom of the horn enclosure was fastened by 4 screws. Mounting strip comes screwed and glued to bottom piece.

6. Right center: Top of enclosure went on next.



9. Left: Next step was to mount the speaker and tweeter. Jay Carver chose a 12-in. University C12W, and a 4401 tweeter for this system. Note how the latter is mounted.

10. Right: Finally, the rear and sides were fastened to the top, front, and bottom. Here, too, airtight joints are required. Note the strips under the top, shown in the preceding photo, to which the sides are screwed.



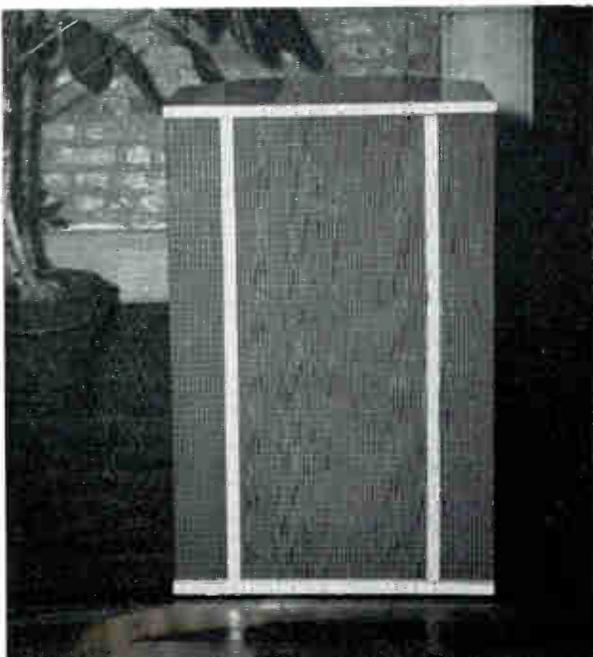
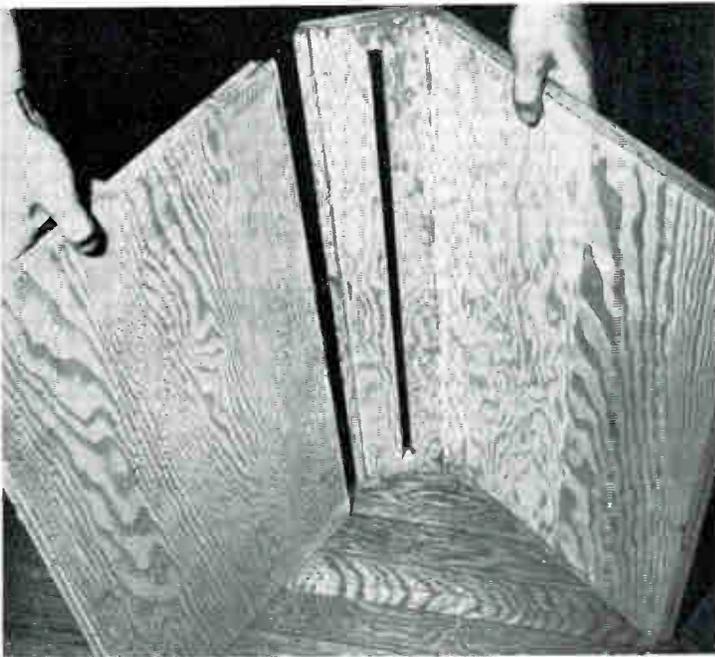
3. Left: A disc is furnished to cover the upper opening if only one speaker is to be used. Bolts and nuts are positioned according to RETMA standards.



4. Right: Decorative strips are held by screws from the rear.

7. Below left: Pre-cut, slotted rear strip and side pieces were already cut at correct angles, with tongues and grooves to fit them together.

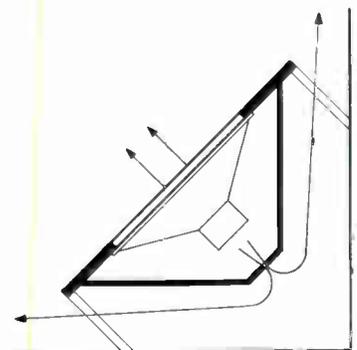
8. It is necessary to pay particular attention to fitting these pieces together tightly, so that there will be no air leakage along the joints. Holes for the screws were already drilled in the back section.



11. The finished corner enclosure was assembled in about 40 minutes. No fuss, no dust! All the exposed wood came sanded, ready for shellac or stain. Speakers can be changed later, or a second 12-in. speaker can be added by removing the disc from the upper opening.

12. Diagram of the construction, combining a cavity, slot, and a corner horn to provide back loading for the direct-radiator or speaker. Crossover network must be

selected according to the characteristics of the speaker and tweeter.



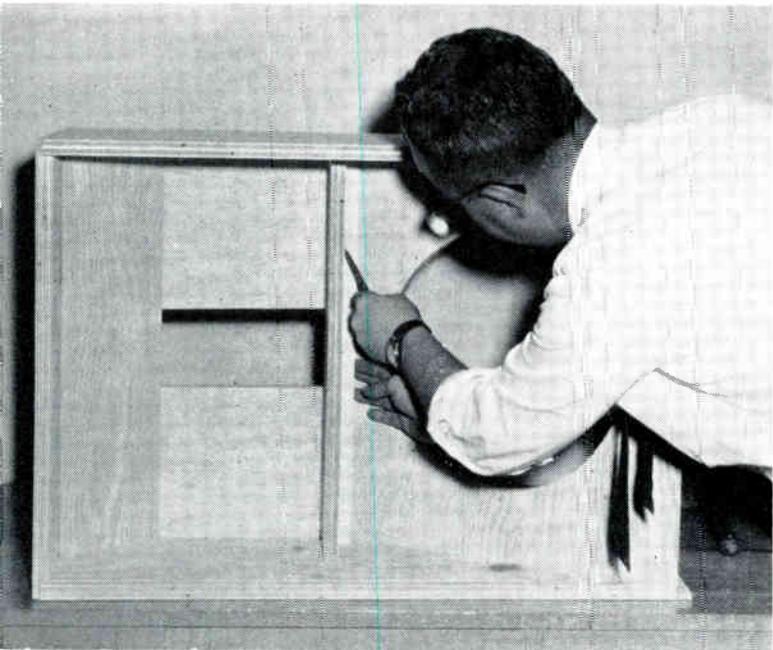
# HOW TO MAKE IT

*Here are some practical suggestions on assembling a Karlson-type speaker enclosure, offered by the Radio Instructor at Jefferson High School, Lafayette, Indiana*

By GEORGE V. PRICE



*Fig. 1. Front view, fitting the speaker-mounting board at the bottom*



*Fig. 2. Front view, locating the speaker board brace under the shelf*



IF YOU HAVE assembled any of the various kits for hi-fi equipment, you have probably thought: "If I ever did this job again, I'd be able to make it really perfect." Trouble is that we seldom do the same thing twice, so we don't have an opportunity to profit by our experience. An exception, in my own case, was the experience of assembling three Karlson speaker enclosures, a job I undertook for the Golden Ear Sound Studio, where they were used to demonstrate three different types of loudspeakers.

The instructions supplied by the manufacturer were excellent, but I certainly knew a lot more about putting the parts together when I finished the third enclosure than I did after completing the first. The accompanying photographs were taken and the following notes prepared with the idea that they may be useful to those enthusiasts who get more satisfaction from doing at least part of the work themselves than from buying all their equipment in finished form.

It can be said of any enclosure that the performance is as good as the joints are tight. So I undertook to make my Karlsons as solid as piano cases, and the results amply justified the extra work I put into them.

After studying the instructions and going over the assembly details carefully, I equipped myself with a pound can of Weldwood glue, a box of 1-in. wire nails, and another of No. 8 flathead wood screws  $1\frac{1}{4}$  ins. long. The wire brads supplied with the kit are all right for nailing the case, but the 1-in. size is better for securing the glue blocks. If you want to make this a super-job, give each piece two coats of thin white shellac before you start the assembly.

I would suggest that, before you fasten any of the pieces together, you make a trial assembly to be sure that you understand the instructions. You may find, as I did, that the speaker board extends slightly into the rabbeted section that receives the bottom board. If so, any excess stock should be marked carefully, Fig. 1, and removed with a disc sander. When you do this, make certain that you maintain the same angle.

While working with the speaker board, I decided to use the bottom speaker-board brace on the slant board at the top of the enclosure. That left the speaker board without a bottom brace. However, if you fit the speaker board to the bottom of the case exactly, these two pieces can be joined solidly with glue and four wood screws put through

*Fig. 3. Rear view, fitting the brace behind the slant board at the top*

*Hi-Fi Music at Home*

# A PERFECT JOB

*This type of enclosure, suitable for any 12-inch speaker, can be used separately, built into a storage wall, or it can be made a part of a radio-phonograph cabinet*

the bottom of the case, and extending into the speaker board. Be sure to drill  $\frac{5}{32}$ -in. clearance holes in the bottom board to pass the screws.

One note of warning at this point may be helpful if you are not experienced with glued joints: Glued joints should be held together tightly until they are dry, either with clamps or screws. Nails are third choice for this purpose. Moreover, the glued surfaces must meet perfectly, for glue is not intended to fill cracks in poor joints.

Before gluing anything, however, put the upper speaker-board brace in position, Fig. 2, and mark its location on the under side of the shelf. Also, it is well to put the other brace, Fig. 3, behind the slant board, and mark its position on the top board. Then fasten the two braces just marked to the shelf and to the top board. Use plenty of glue and at least 4 screws to hold each of these pieces. Don't be stingy with the glue. The excess squeezed out when the screws are tightened can be wiped off with a damp cloth.

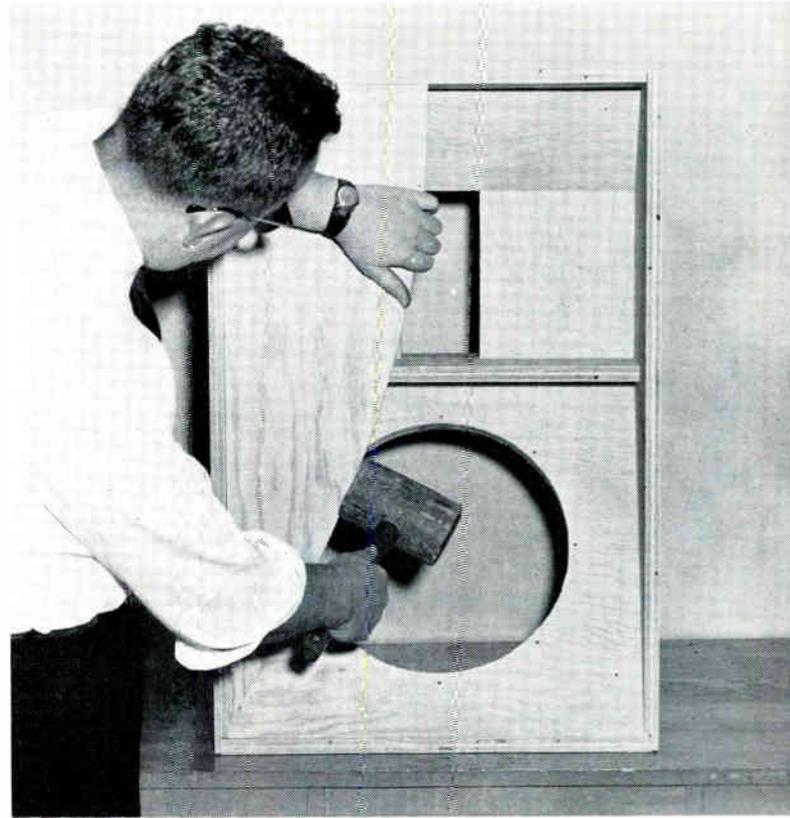
There is sufficient clearance between the speaker board and the front wings so that you can install the wings after the top and bottom of the enclosure are in place. This can be seen in Fig. 4.

Use screws and plenty of glue to secure the slant board to the top of the enclosure and to the two boards forming the slot. This section is shown in Fig. 2.

As you proceed with the assembly of the case, fasten the glued parts together with wire nails put in from the outside. One of the foot blocks can be used as a spacer to locate the stop strips for the back panel. Again, use both glue and screws to fasten these strips to the case. Watch out, however, that you do not put a screw into a strip where it will run into one of the screws that hold the back panel.

After the glue has set overnight, go back to the nails and drive them in with a small nail set, and fill the holes with spackling compound. This is better than putty, because it hardens quickly, and any excess can be sanded off so that the holes will not show.

With the assembly completed, sandpaper all the exposed surfaces, and clean off any marks or fingerprints that may have got on the wood in the course of handling. Then you can put on whatever finish suits your particular taste. The last step is to mount

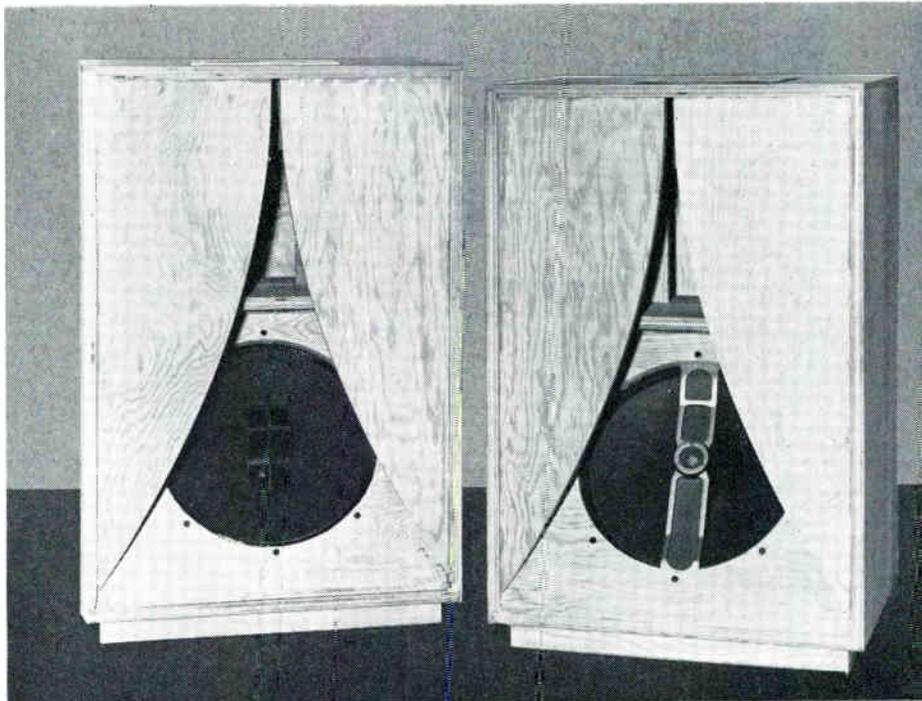


*Fig. 4. Finally, the two front wings were fastened in place*

the speaker. Two of the enclosures I built are shown in Fig. 5.

My time for assembling each kit was about four hours. But don't try to set a speed record on work of this sort. The minutes you save might make the difference between a solid enclosure that will do justice to the speaker you put in it, and one which will develop rasps and rattles next winter when you start up your heating system.

*Fig. 5. Two of the Karlson cabinets used to demonstrate different speakers*



# "INSIDE INFORMATION"

## *Exclusive Photographs and Data on the Design of New Equipment*

SEVERAL years ago, the Tefi tape machine and the magazine-mounted Tefi tapes were brought out in Germany.

But only now has an American company been set up to import and distribute this equipment in the U. S. While this is called a tape machine, it does not employ magnetic tape. Instead, it uses a wide plastic tape in the form of an endless belt, on which music is recorded after the manner of a record disc, played with a stylus. About 82 grooves are cut side-by-side on the tape, of which there are some 600 ft. in the magazine. This represents 2 to 8 hours of music, de-

small knob on the front to the proper position as indicated by an illuminated scale.

It would be unfair to comment on the audio quality at the initial demonstration, for the amplifier and speaker used were decidedly second-grade. Under those circumstances, the tone was only fair, although the background noise seemed very low. This is a very interesting piece of equipment, carefully engineered, and well built. Over 40 "Sound Books", containing as many as 74 selections on a 4-hour tape, are available now. The machine is priced



Fig. 1. This magazine holds a continuous plastic belt, up to 600 ft. long, driven from beneath

pending on the length of the tape and the speed at which it is intended to be run.

Fig. 1 shows the magazine, from which a short loop is pulled to run over the pulleys which hold it against the playing head. There is a conical, toothed depression on the magazine shaft that fits over the drive shaft of the machine. Turning a knob on the top of the machine releases the pulleys, so that the tape can be looped around the playing head, Fig. 2. As the tape runs, the head moves down, following the tape grooves. However, to pick out a particular composition on the tape, it can be moved by the

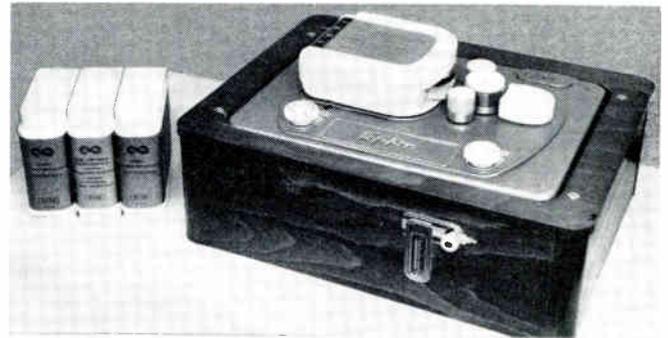


Fig. 2. Pickup at right can be set by knob on front of cabinet, follows grooves on the belt. Playing time is 2 to 8 hours, depending on the speed and length of the belt

at about \$100, and the tapes at \$10 to \$20, depending on their length. *Audio-Master Corp., 17 E. 45th St., New York 17*

THE B-J tone arm, Fig. 3, is one of those things that makes us ask: "Why didn't I think of that years ago?" Purpose of this unusual construction is to keep the pickup tangent to the record grooves at all times. The aluminum tubes which comprise the arm are pivoted at each end, and the geometry of this arrangement is such that, as the pickup moves from the first record groove to the last, the fixed base and the pivoted rods maintain

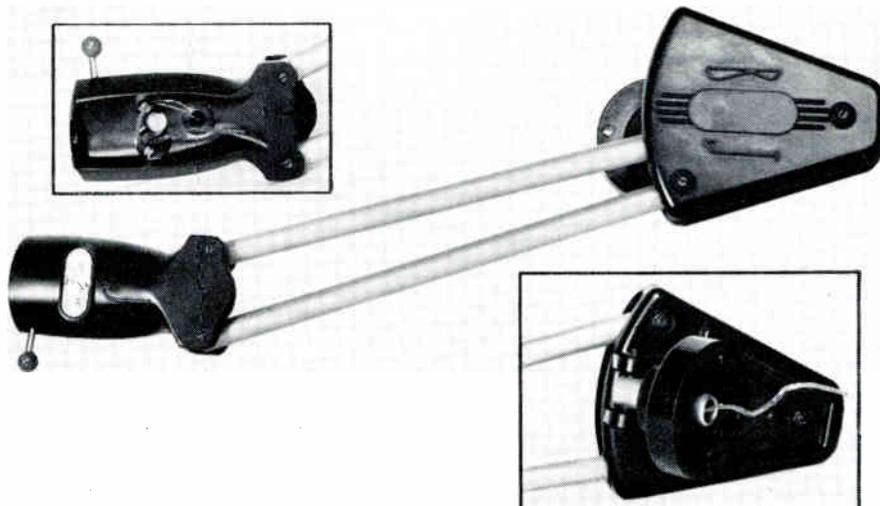


Fig. 3. This pickup arm departs from conventional design in that it keeps the head tangent to the record grooves at all times. Since the mounting does not swing sidewise, the pivoted rods change the angle at which they carry the pickup as the latter moves inward, following the record grooves

the tangent relation between the pickup and the groove.

The underneath view of the mounting, Fig. 3, shows that the mounting swings up when the arm is raised, but it cannot turn with respect to the base. It might seem that objectionable play would be introduced at the pivots, but that is not the case, although the arm moves sidewise very freely.

In the illustration showing the underside of the mounting, you can see a slight depression. Various counter balance weights are furnished to fit in this depression, so that the stylus pressure can be adjusted as required.

You will notice that one of the aluminum tubes is longer than the other. This, according to the manufacturer, has the effect of eliminating resonance effects in the tone arm.

Provisions for mounting a pickup, shown in the under-

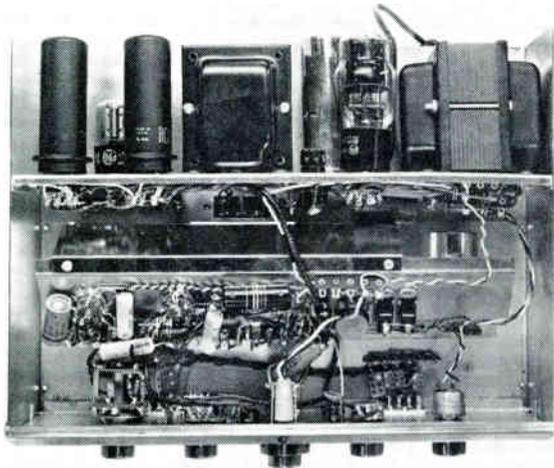


Fig. 3. Top view of the preamp-amplifier chassis, removed from the case

side detail, are such that all standard types can be used. You will see that the lead runs through one of the tubes, and out through the base. A drilling template is furnished, so designed that the correct location of the screws for the base can be determined quickly and accurately. This arm is attracting a great deal of attention, and it will be interesting to see how it works out in the hands of the hi-fi enthusiasts. *Hi-Fidelity, Inc., 420 Madison Ave., New York*

Two views are shown here of the Radio Craftsmen Solitaire model preamp-amplifier, Figs. 3 and 4. The front panel is finished in gold, while the metal case is a neutral reddish brown. Unlike conventional designs, there are no terminals at the rear of the chassis. All are located beneath the chassis, accessible through an opening in the bottom plate. This does not seem to be the most convenient arrangement, even though the felt-covered feet allow enough room for the wires to run under the chassis, and out at the rear. With the unit mounted in a cabinet, this would be quite awkward, particularly for those who like to make changes in their systems from time to time.

The top view, left, shows that the heavy output and power transformers are supported entirely by a vertical steel panel across the rear. While this is adequate when the unit has been installed, there is danger that the panel

may be bent in shipping because of the heavy weight that it must carry.

Rated output is 20 watts. There are two 12AX7 tubes serving as the 1st and 2nd phono amplifiers, and as input cathode follower and 1st audio stage. Then come a 6U8 as a 2nd audio stage and a cathode follower output, a 6SL7 voltage amplifier and phase splitter, and two 6L6's for the power output.

Front panel controls are for: 1) selector for tape, TV, tuner, and turnover marked AES, LON, RIAA, LP, EUR,

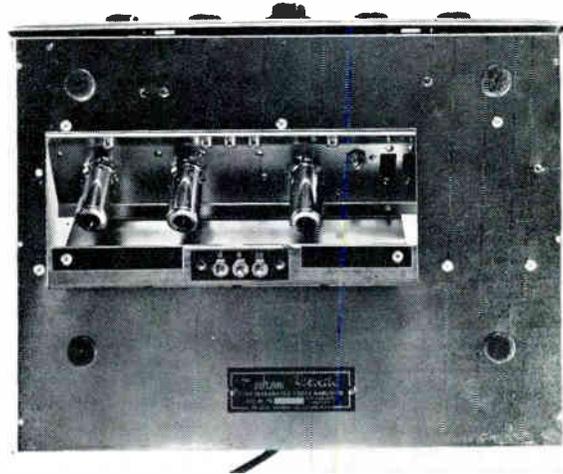


Fig. 4. Opening in bottom of the metal case provides access to terminals

and NAB; 2) bass; 3) concentric loudness and level controls; 4) treble; and 5) power on-off. There are two 3-position filter switches marked flat, 40, and 150, and 3, 6.5, and flat, for the low and high audio ranges.

Under the chassis are input pin jacks for tape, TV, tuner, and pickup, and another for tape output. There are also two AC receptacles, a hum balance, and speaker connections of 8 and 16 ohms.

A drilling template is supplied for mounting the unit on a panel, and for the opening required under the chassis. Height of the case, including the mounting feet, is  $4\frac{1}{4}$



Fig. 5. Tape machine intended for hi-fi installations has  $2\frac{1}{2}$ -watt output

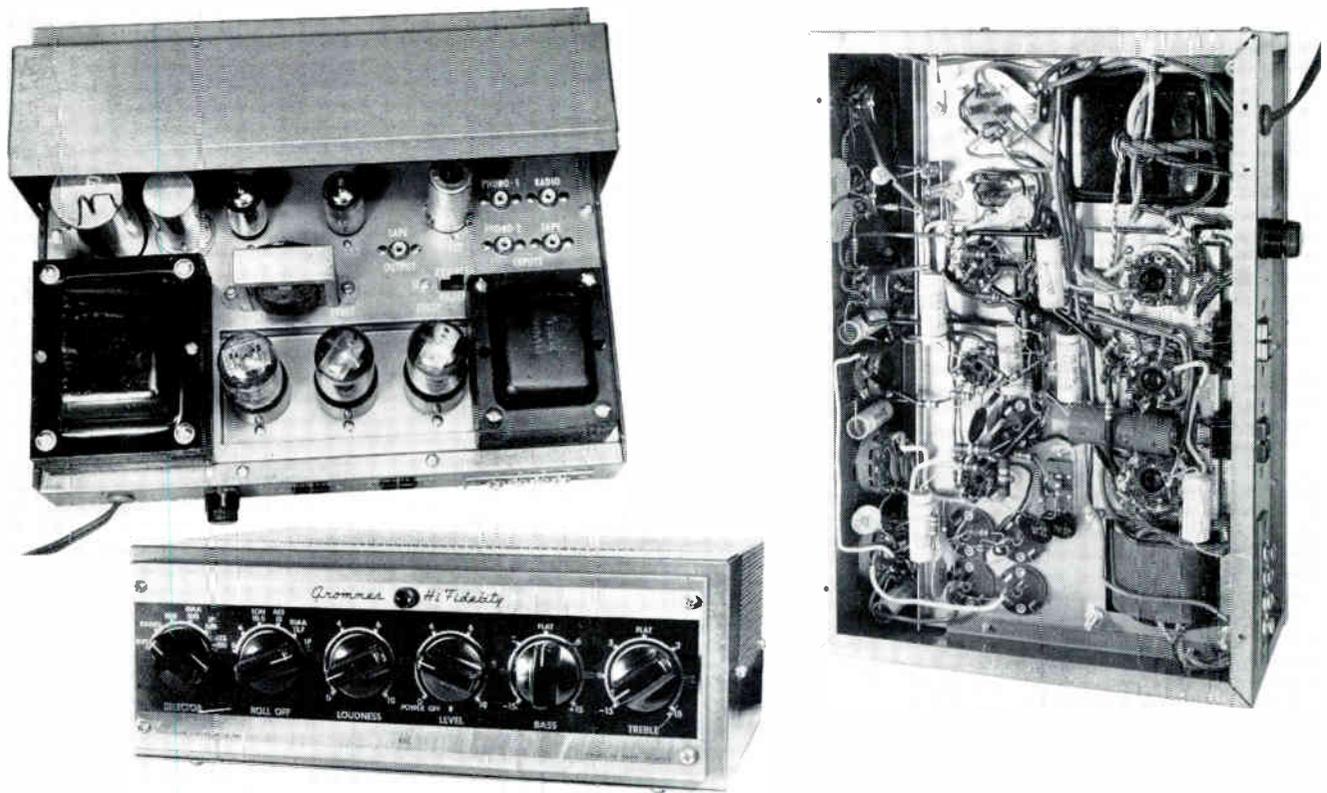


Fig. 6. Three views of the 12-watt preamp-amplifier. Perforated metal cover can be left off, as in the top view, if the unit is mounted in a cabinet

ins.; width is  $14\frac{3}{4}$  ins. When mounted on a panel, the case extends  $10\frac{3}{4}$  ins. behind the panel. Price of the Solitaire is \$113.50. *The Radio Craftsmen, Inc., 4401 N. Ravenswood Ave., Chicago 40*

REVERE is bringing out a tape recorder, Fig. 5, intended for use in hi-fi installations. That is, the unit, mounted on rack panel, is furnished without a speaker, and includes only a  $2\frac{1}{2}$ -watt amplifier.

It has not been possible to get one of these recorders for examination and photographing, nor even a complete set of specifications at this time of writing. It appears, however, that the new model T-11 is just what has been needed for a long time. The portable Revere recorders have proved to be exceptionally fine as to mechanical and electrical design in their price class, but it has not been practical, in a portable assembly, to provide an audio system and speaker that do full justice to the mechanism. Nor has it seemed economically practical to buy the portable model and discard all but the tape transport section.

With the T-11, that objection has been overcome, since this unit can be built into any hi-fi system by using the  $2\frac{1}{2}$ -watt output to feed a power amplifier. The four keys at the front are marked stop, play, record, and speaker. The knob at the right is for the fast forward or reverse drive. Speed is  $7\frac{1}{2}$  ips. Reels from 3 to  $10\frac{1}{2}$  ins. in diameter can be used on this machine. Other features include two recording-level indicators and an index counter. The panel can be mounted horizontally or vertically. Price is \$264.50. Detail photographs and further information on this model will be published in a forthcoming issue. *Revere Camera Co., Inc., 320 E. 21st St., Chicago 16*

THE new Grommes model 55C preamp-amplifier, Fig. 6, is an attractive instrument done up in a beige-colored metal cabinet with a gold-finish pierced-metal cover and escutcheon. Accompanying illustrations show the front, the top with the cover taken off, and the under side with the base plate removed.

The input jacks, tape output jack, and run-in-filter switch are under the metal cover, as you can see from the top view of the chassis. That is not too inconvenient if the unit is on a shelf or table. If it is mounted in a cabinet, the cover is not really needed, and can be left off. In the latter case, it can be mounted on a panel  $\frac{1}{2}$  in. thick, simply by removing the spacer plate on which the escutcheon is mounted, and using the 4 corner screws to hold the escutcheon on the front of the panel, and the chassis at the rear.

*Continued on page 64*

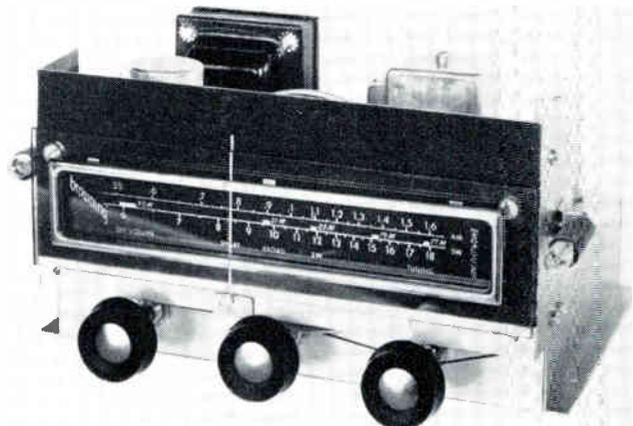
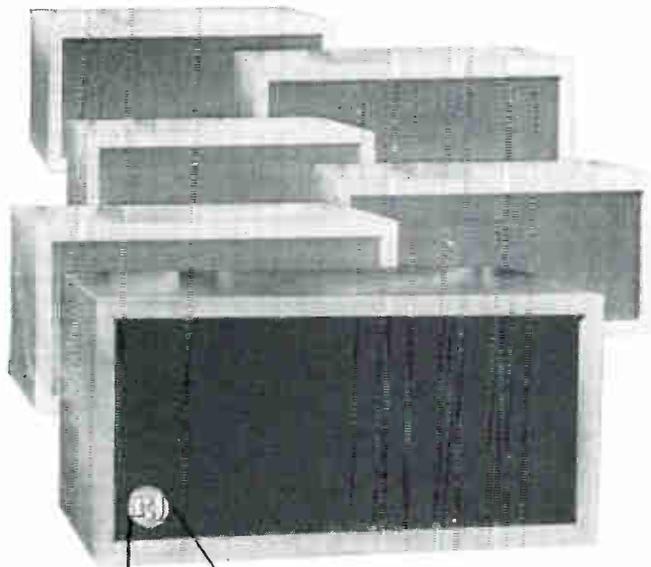


Fig. 7. This new shortwave tuner can be added to any hi-fi installation



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## OPERA RECORDINGS

*Continued from page 21*

of the first rehearsal, the monstrous figure, its arms awave, was seen descending from the workshop window by ropes, whence it was loaded upon a rail-carrying truck and driven through town by the intrepid opera director himself.

The pending Antheil premiere called for a Greenwich Village set. Bomhard sent telegrams flying all over New York: PLEASE SEND PICTURES OF VILLAGE. HAVE FORGOTTEN HOW IT LOOKS. The office files of *The Villager* were ransacked, the pictures duly dispatched, and the set for "The Wish", its paint still wet, was on-stage just in time for the first rehearsal.

Hazards are more frequent with the staged performances than in the recording sessions since, after a month's run, the show is pretty well polished before the recording sessions start. A small crisis did arise in the recording of "The Transposed Heads", however. The youngster from the local dramatic school who spoke the part of the Guru had a dense Southern accent. His soft drawing of Thomas Mann's pedantic prose was so hilarious that something else had to be found quickly — not so easy a matter south of the Mason-Dixon line. Rob Whitney, conductor of the orchestra, stepped in and saved the day. It is his clipped speech that you'll hear on the discs as the voice of the wise man Kamadamana. Perhaps this back-stage story will help to make the recorded music more interesting.

## PRE-RECORDED TAPES

*Continued from page 38*

other backward. Fig. 4 shows the Ampex heads used for this purpose. The first head, at the left, records the upper track, while the second head records the lower track. The third, a double playback head, is connected to a loudspeaker, a meter, and a switch, so that the operator can either hear or measure what is being recorded on each track at any time. The monitoring switches and meters can be seen in Fig. 5.

In Fig. 3 you will see that large magazine reels are used on the left hand spindles, big enough to hold sufficient tape for several copy reels. This eliminates putting on a new blank reel each time a copy is run off.

Other companies are working on the perfection of special machines to make a number of tape copies at the same time, as a means to reduce the cost. Fig. 6 shows one of the early types developed by the Too-good Recording Company and Minnesota Mining and Manufacturing Company. Here, 10 copies are being made simultaneously from a master tape running on a playback machine.

The question is often asked: Will tapes eventually replace discs for home use? Tapes have already replaced discs to a certain extent. If you want full-range, noise-

*Concluded on page 51*

**PRE-RECORDED TAPES**

*Continued from page 50*

free reproduction, without deterioration from repeated use, then tape is the thing to use. In that respect, discs cannot compete, because the grooves start to wear down and to collect dust right from the first playing.

Tapes are almost impossible to damage. If a tape breaks it can be spliced so that the joint will not cause even an audible click. The value of a disc, however, can be destroyed by a single scratch.

Against these advantages is the fact that, at first, tapes seem harder to handle than discs. But if you have watched anyone who has had a little experience with tape, you will see that he can thread a tape machine almost as fast as you can put a record on a turntable and start it playing.

Of course, there are more phonographs in use today than tape machines. Pre-recorded tapes are more expensive than records, they are not as readily available in the stores and the repertoire is still limited. Actually, you can take either side of the tape vs. disc question, and make out a good case for the future. At the present time we only know that each method has its own particular advantages, which is the reason that so many people have both tape machines and record players in their homes. As for pre-recorded tapes, they are becoming popular because they add further to the versatility of the tape machine as a source of home entertainment.

**THE ACCURATE WAY TO TIME YOUR STYLUS**

The article on using an elapsed-time meter which appeared in our September-October issue has started quite a vogue. It's the only way to keep an accurate count of the number of hours your stylus has been used, and it works automatically, since the meter starts to register when you switch on your changer or turntable, and stops when you switch off. Have you installed an elapsed-time meter on your phonograph?

**FM TUNER CIRCUITS**

A frequent question from readers: "Why is it that TV sets have ratio detector circuits for the FM audio channel, while all FM broadcast tuners use limiter-discriminator circuits?" The reason is that when extreme sensitivity and maximum noise-limiting are required, the limiter-discriminator circuit is employed. For example, this is the only circuit found in mobile communication equipment. The ratio detector circuit is adequate for television sets because, where there is a signal strong enough for picture reception, there is probably a sufficiently powerful signal for acceptable audio reception. In weak-signal areas, people put up high-efficiency TV antennas. A signal of 10 microvolts, adequate for noise-free FM broadcast reception from a tuner with a limiter-discriminator circuit, would not operate the ratio detector circuit of a TV set.



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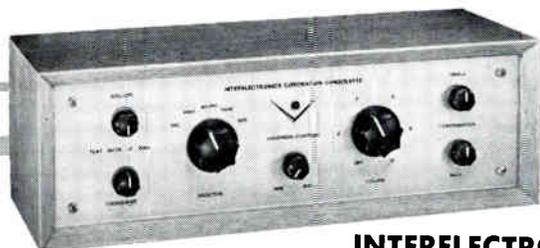
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## HI-FI IN ENGLAND

Here is a communiqué from Peter Craige-Raymond of London, with notes about hi-fi happenings over there:

Highland-fi eventually arrived in Scotland last month when Lord Beaverbrook's Daily Record sponsored a four-day Easter Parade at Glasgow's famed McLellan Galleries, and invited this columnist up north to try hi-fi on the canny Scots.

I flew up with scientist Ken Hawke, whose knowledge of hi-fi all but sends me back to the victrola. Ken worked out a three-amplifier, three-speaker crossover system for me which sounded wonderful in the huge galleries. I put on a light program — "Carmen Jones" soundtrack, Les Paul, Glenn Miller and Axel Stordahl — 25,000 Glaswegians endured it. The final opinion, though, was simple — too loud. Glasgow still likes its audio reproduction to Hoover the rug as it goes — low, mellow and backgroundy!

And thinking of backgrounds, I also used my time plattering behind the four-day fashion shows. These were conceived in chaos, and there was no rehearsal, so I had to play all the way through without any idea of what model was coming on. This was no hindrance until I put a sprightly mambo under the stylus, and in walked an elderly matron to show rain-wear. Hell has no wrath like a model given the wrong music.

Television is one of hi-fi's chief advertisers, according to conductor Dr. Herman Scherchen. In Liverpool to conduct the local Philharmonic Orchestra, Scherchen divides his day between rehearsals and trying out new British amplifiers and units in his hotel room. The hotel management's views on this I thought better to leave untapped.

Scherchen, whose work is issued on the Westminster label in the U. S., has been building his own audio studio in Switzerland, his home. I liked best his story of showing a plan of the studio to a world-renowned soprano, who held it upside down and — looking at the architect's markings of blue for the studio and red to represent living quarters — solemnly opinionated: "I like the color scheme, anyway." Scherchen's opinion of sopranos in general went down a notch. The name of this one in particular I think better to leave unmentioned.

The two musicologists planning a Borodin Society in Europe must be stunned to find out how easy it is to popularize the Russian composer, if only, that is, you call it "Kismet" and not Borodin. The arrival of "Kismet" in London was greeted by many recordings from the show's score. *Stranger in Paradise* was naturally uppermost, as this has been a longtime favorite over the European American Forces Network stations ever since the Broadway opening.

Concluded on page 53

*Hi-Fi Music at Home*

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## HI-FI IN ENGLAND

Continued from page 52

If "Kismet" had the musical send-off to beat any others, the 20th Century-Fox filming of "Carmen Jones" had the worst. Hardly any broadcasts or recordings of the film's music, which is puzzling to say the least. The field had been left to Brunswick, with a disc of Billy Rose's 1942 Broadway cast, and HMV with the soundtrack album.

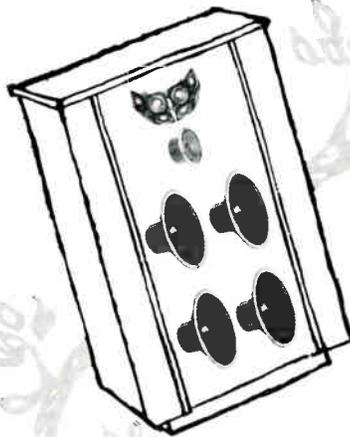
And still no Dorothy Dandridge on wax. It must be four years ago that Maurice Winnick brought Dorothy over to the Cafe de Paris. She told me then she was going to record. Four years is a long time, and over here she became very popular. A pity there are no records to cement that popularity. The same worry might attack Lena Horne. Lena can pack any theatre in Britain when she cares to come, but we haven't had a new recording in years. Again I wonder why.

Beniamino Gigli, whose "farewell" recital London has been crying over, anticlimaxed the going away by tele-recording an introduction to his daughter Rina. BBC-TV is not famous for its *saue* programming, but this father-and-daughter meeting was the crudest yet.

Rina Gigli, I should mention, has been known in Britain since the middle 40's, when she had an HMV recording contract. The idea of cocktailing father's goodbye with daughter's upcoming was not bad. But, in effect, it became Gigli reading praise of Rina in Italian from a script . . . and poor Rina having to translate the praise of herself into English! A tough assignment for the singer and little wonder she looked petrified. Luckily she was later allowed to sing — by herself. She remains a fine soprano.

By the time you read this column, stereophonic tapes will be on sale in Europe through EMI, the British counterpart of RCA-Victor. In announcing this, the "little doggie" rival beat competitors in the field and opened up yet another battleground here. For hi-fi is only in its infancy in Europe today. General Electric demonstrated stereophonic tapes two years ago and other companies have experimented. But EMI looks likely to be there first.

Alan Bush's second opera, "Men of Black-mour", will be world premiered at Weimar next year . . . Pye chairman C. O. Stanley returned to Europe from New York with hi-fi high on his mind, and seemed to bode some intriguing developments both in equipment and in discs, as he now owns two record companies . . . A new production of Verdi's "Falstaff" will be a highlight of this year's Edinburgh Festival (August 21-September 10) and the Royal Danish Ballet will pay their second visit to Britain to appear at the Festival. The Kabuki dancers are also expected . . . This month German television can boast that, in two years, it has presented no less than twenty full-length operas.



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# Directory of Hi-Fi Record & Equipment Dealers

To keep this Directory up-to-date, it is revised for each issue of MUSIC at HOME and, in order to make it as complete as possible, new names are added as soon as they are reported and checked

## NOTICE TO DEALERS

Listings in this Directory are available without charge to hi-fi record and equipment dealers as a service to our readers. If you operate a hi-fi record or equipment store, and do not find your company listed, please write to the Directory Editor, MUSIC at HOME Magazine, 207 E. 37th Street, New York City 16. Information for qualifying for a listing in this Directory will be sent to you at once.

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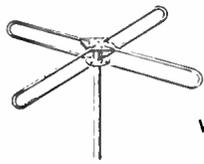
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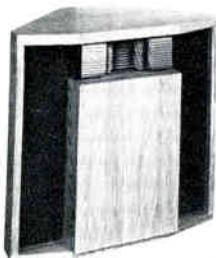
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Hygrade Sound Sales, 971 Richards St.

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## IN CANADA —

There's one place where you can find—and hear—all your high-fidelity equipment needs. We carry a complete stock... come in, or write in, for a chat, a look, and a listen.

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Canadian Elec. Supply Co., Ltd.  
275 Craig St. W.  
Payette Radio Ltd., 730 St. James W.  
Savard Radio Co., 910 Bleury

## SASKATCHEWAN

Regina  
National Musical Supply Co., 1780 Hamilton St.

## CUBA

Havana, Vedado  
"California" Alta-Fidelidad, LaRompo 23Y "P"

## ENGLAND

Croydon, Surrey  
Classic Electrical Co., Ltd., High Fidelity Specialists, 352-364 Lower Addiscombe Rd.

## JAPAN

Tokyo  
Nippon Gakki Seizo Kobushiki Kaisha, Tokyo Br., No. 1, 7-chome, Ginza, Chuo-ku

## MEXICO

Mexico City  
Audio-Vision, S. A., Insurgentes No. 158-A,  
Tel. No. 35-07-87

## REPUBLIC OF PANAMA

Panama City  
Tropical Electronics, 45th St. No. 3 Bella Vista

## SOUTH AFRICA

Johannesburg  
Recordia Photo & Gramophone Co.,  
Ltd., Box 2400

## LES PAUL AND MARY FORD

*Continued from page 25*

now the ebony Les Paul custom model will do very nicely. Some of them are pictured here. Les works, by the way, hand in glove with the Gibson people, and Gibson manufactures the Les Paul guitars for commercial use. At one period in those earlier days, Les rented a small New York guitar shop from 8:00 P.M. to 6:00 A.M. Mary would sit and read, while Les worked.

The guitars mounted in front of the chimney in their home are some earlier designs, while those they are playing are their latest Gibsons. Made of Honduras mahogany, the body is solid with a graceful cutaway design. This is necessary so the player can easily reach all the frets. As you can probably see, the guitar is practically

fretless, and the Pauls love it. Two powerful magnetic type pickups were especially designed and engineered for this model. A three way toggle switch selects either front or back pickup, or both simultaneously, with just a flip of the finger. Each pickup has separate tone and volume controls. You can have a guitar like theirs for \$350.

Quite aside from the music, the equipment, and the Pauls themselves, there is something altogether magical about the Paul household. It's the way the beer and that platter of crackers and delicious Wisconsin cheese keep following you around. You're finally sitting with Les and Mary in their lovely living room, and there beside you is — yup, you've got it right — beer, cheese, and crackers. You're talking

*Continued on page 57*

**LES PAUL AND MARY FORD**

*Continued from page 56*

about hi-fi as you look through the large picture windows at the superb scenery. In the background is soft music from one of the many hidden speakers — Les Paul and Mary Ford music, if you please. And Les says that hi-fi has so many times been misconstrued, that hi-fi means really good music. "It's a pleasure to see hi-fi accepted," he continues, "because there is real reason now for better records. Before, it didn't matter so much what you put into a record, because you knew so few people had the necessary equipment to take off all the sound." And somehow in all of this you agree with Les, and your thoughts wander away. Maybe there's a twinge of envy on your part, but that doesn't last long because you're so delighted that such nice things happen to such nice people. You wonder if they could possibly have a worry in this whole, wide world. Les catches you quickly there. It seems the Ramapos are heavy with deer, and these deer have a great fondness for Mary's flowers and bushes. "How," he asks you, "does one discourage deer?"

Well, maybe you don't exactly know how to discourage deer from nibbling on the blossoms and the foliage. But you are quite, quite certain that Les Paul and Mary Ford have a wonderful life together, and that they will go on for long, long years making splendid hi-fi music in their home!

**Eye-wise and ear-wise  
it pleases  
as no other can**



*New Sonotone Amplifier*

Compare this Sonotone HFA-100 for both performance and appearance with any amplifier you can buy—at any price!

Its 12-watt output is ample for the largest living room. Frequency response is flat beyond audible limits, at any volume setting. At normal listening levels distortion is virtually unmeasurable, and only 0.15% at maximum! Hum and noise, too, are completely negligible.

Cabinetry is equally superb—either solid mahogany or solid walnut; the panel, softly-glowing solid brushed brass. Picture this unit conveniently at your chairside...its beauty is at home in any home.

The Sonotone HFA-100 is for use with fine ceramic phono cartridges, tuners, tape recorders, television, etc. If splendidly reproduced, noise-free music is your interest, rather than gadgetry and knob-turning, here is the amplifier for you. **\$117.50.** (\$99.50 less cabinet).

**SONOTONE CONTROL UNIT**

Similar in appearance to the HFA-100 above, this CU-50 is a self-powered control amplifier, designed to work with any power amplifier.



Used with ceramic phono cartridge, tuner, tape, or television sound, the CU-50 gives you complete chairside tone, volume and selector control, for your relaxed listening pleasure. **\$59.00.** (\$49.50 less cabinet).



**SONOTONE** Corporation  
Elmsford, N. Y.

*We will gladly supply full technical information on request to Dept. AM-55*

**CAPITOL RECORDS BY  
LES PAUL & MARY FORD**

Bye Bye Blues	H356	Just One More	
Hit Makers	H416	Chance	1825
Les and Mary	W577	Kangaroo	2614
New Sound (1)	H226	Lady of Spain	2265
New Sound (2)	H286	Lover	1600
Auctioneer	2839	Mammy's Boogie	
Brazil	1600		2316
Bye Bye Blues	2316	Mandolino	2928
Carioca	2080	Meet Mister	
Chicken Reel	1373	Callaghan	2193
Cryin'	1088	Mockin' Bird	
Don'cha Hear	Them	Hill	1676
Bells	2614	My Baby's Coming	
Dry My Tears	1088	Home	2265
Genuine Love	3108	Nola	1621
Goofus	1192	No Letter	
How High the		Today	3108
Moon	1675	Silent Night	1881
I'm a Fool to		Sleep	2400
Care	2839	Smoke Rings	2123
I'm Confessin'	2080	Someday Sweet-	
I'm Sitting on Top		heart	3105
of the World	2400	Song in Blue	3105
In the Good Old		South	2735
Summertime	2123	Sugar Sweet	1192
I Really Don't	Want	Take Me in Your Arms	
To Know	2735	and Hold Me	2193
It's a Lonesome	Old	Tiger Rag	1920
Town	1920	Vaya Con Dios	2486
I Wish I Had Never		Walkin' and Whistlin'	
Seen Sunshine		Blues	1451
	1592	Whispering	1748
Jazz Me Blues	1825	White Christmas	
Jealous	1621		2617
Jingle Bells	1881	Whither Thou	
Johnny	2486	Goest	2928
Josephine	1675	World Is Waiting for	
Jungle Bells	2617	the Sunrise	1748

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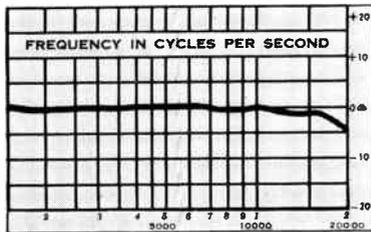


**FAIRCHILD  
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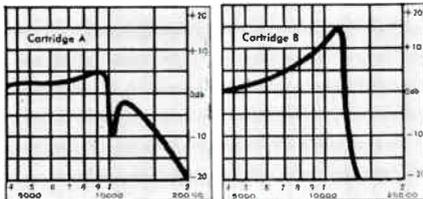
**\$37.50**

Fairchild's 220 Series cartridge guarantees this distortion-free reproduction in the entire audible range!

Just look at these frequency response curves of the Fairchild 220 and two other leading cartridges. See how Fairchild alone gives smooth, even reproduction — completely uniform to 17,000 cycles with only slow roll-off beyond. This means no unnatural harshness, no distorted sound! With Fairchild, you have only the sound you were meant to hear!



**FAIRCHILD 220**



**CARTRIDGE A CARTRIDGE B**

the **RIGHT** sound—  
always!

## FAIRCHILD 240 Balanced-Bar PREAMPLIFIER

Highest performance and operating simplicity in this attractive Fairchild 240 Balanced Bar Preamplifier give you the world's finest sound equalization.

Also, the Fairchild 240 features Listening Level Control. Operating independently of volume control, LLC provides pleasant low-level listening and *correctly balanced* normal listening levels—all easily, without complex adjustments.

**\$98.50**



**FAIRCHILD RECORDING  
EQUIPMENT**  
156th STREET & 7th AVE., WHITESTONE, N. Y.

### WANTED: YOUR OPINION

Manufacturers of hi-fi equipment are spending a great deal of thought and no small amount of time on the subject of future audio shows. Questions are being asked such as: What features of past shows have been most interesting and helpful to visitors? What features have been lacking that should be added? Are hotels better than one-floor exhibition halls? Do visitors feel that they must hear audio systems in operation, or should we have "silent" shows?

The latter question is particularly important because, if exhibitors are to continue operating audio systems, each playing different music, the hotel-room plan is the only way out. Against this, it is being argued that all the public radio shows, going back to the beginning of broadcasting, were "silent". That is, exhibitors were not permitted to turn on their sets and operate loudspeakers. Further, visitors don't drive cars at automobile shows, or go cruising at motor-boat shows. They go to *see* what is new, and to *learn* about changes and improvements in the new models. Is it necessary, then, to hear hi-fi equipment at audio shows?

It would be possible to provide a short test track for cars, or a miniature pond for boats. But no one could judge performance under those circumstances. Some of the manufacturers contend that it is equally difficult for visitors to tell how a given speaker system will sound at home by listening to the bellows that are heard at audio exhibits, and where the acoustics of hotel rooms are uniformly bad. If that is so, visitors might better pick out equipment at the shows that interests them, and then hear it at a local dealer's demonstration room.

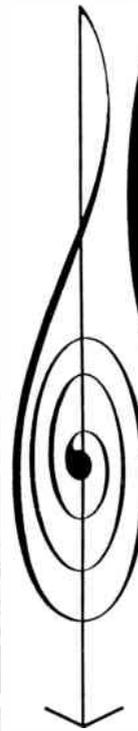
Surely, though, visitors at an audio show will expect to hear music from some source. The suggestion has been made that a glass-enclosed studio be furnished for performances by recording and broadcast artists. Performances of five minutes every half hour could be piped to the exhibits. Then all loudspeakers would carry the same music. In that case, audio shows could be held in large halls, just like other kinds of shows. This would eliminate the need of using elevators or of climbing stairs from one floor to another.

Or would it be better to continue in hotel rooms, perhaps with changes and additions to the arrangements employed in the past?

Next fall, the Institute of High Fidelity Manufacturers plans to sponsor an audio show at Philadelphia, where new ideas will be tried out, and the reaction of the visitors checked carefully. What suggestions would you like to offer for their consideration, as to the overall plan, specific arrangements, or features that will attract a larger attendance? Your letters will be forwarded promptly to the directors of the

*Concluded on page 59*

## HIGH FIDELITY FM STARTS WITH THE antenna



Good FM reproduction demands a good antenna. To realize the full potentials of any Hi-Fi FM system the full signal from the station must be captured by an antenna specifically designed for FM. TACO, the oldest name in receiving antennas, has designed such antennas and is offering the following models for greater enjoyment of Hi-Fi . . .

### TWIN-DRIVEN YAGI



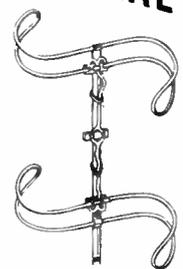
Cat. No. 644 (Single) \$19.00  
Cat. No. 645 (Stacked) \$39.50

High-gain design for fringe or weak-signal areas. Provides FM signals at their best. Minimizes interference from other sources. Uni-directional—recommended for areas where all FM channels are received from one direction, or for use with mechanical rotator.

## OMNI-DIRECTIONAL OMNI-DIRECTIONAL

The most popular FM antennas ever offered. Ideal for the average FM installation. Unique design provides equal reception from all directions with excellent gain. May be used as single antenna or stacked as illustrated.

Cat. No. 624L (Single) \$7.15  
Cat. No. 624STL (Stacked) \$14.10



**TACO**

TECHNICAL APPLIANCE CORPORATION  
SHERBURNE, N. Y.

### WRITE FOR YOUR FM ANTENNA BULLETIN

Box MG,  
Technical Appliance Corporation,  
Sherburne, N. Y.

Name .....

Address .....

**WANTED: YOUR OPINION**

*Continued from page 58*

Institute. Here is the chance to get official consideration of your ideas and your gripes.

**"HI-FI" DEFINED**

Sometimes the keenest comments come from people we would least expect to make them. For years, but without success, we have been scratching the best brains in the country trying to explain, define, or otherwise make known just what we mean by "hi-fi".

And then along comes a lady columnist named Margaret Latrobe and does it for us! It's hard to figure how she outsmarted all of us that way, for it is well known that women generally are not interested in this esoteric subject, and columnists usually have so much superficial knowledge of so many things that they know very little about any of them. But read these words of wisdom from the Latrobe pen, or maybe she used a typewriter:

"This can be an inexpensive means of enjoying recorded music, just as fishing can be done with a bit of string and a bent pin. But once that first fish is caught, it gives a man ideas about what some real tackle would fetch from the briny.

"Once a person is exposed to hi-fi recordings on a modestly-priced set — out come the carpenter tools, the better to chop out the wall; out goes the money, the better to purchase low-impedance cathode followers, binaural systems, and pre-amplifiers.

"And by the time the folks are permitted to hear some music, there is some question as to whether it mightn't have been cheaper just to send for the whole Philharmonic Orchestra in person.

"For the *in person* idea is the desired goal of the whole thing. Hi-fi music means that it's the nearest thing to sitting in the band, hearing the sounds as they originated. . . . Isn't hi-fi the greatest?"

Yes, Margaret, hi-fi is pretty wonderful all right, and we of the outgoing carpenter tools and the outgoing money are very much obliged to you for telling us exactly what this thing is that we are so excited about.

Your reference to fishing with a bit of string and a bent pin was most appropriate, too. The music from a real hi-fi system makes some of the "high fidelity" table-model phonographs seem to be of the bit-of-string-and-bent-pin variety, which they really are. Nevertheless, they are launching more and more people on the never-ending search for hier and hier fi, as surely as the experience of catching the first fish starts a new lot of customers a-buying fancier and more expensive tackle every year!

And it was nice of you to add that nostalgic remark about "the days when

*Concluded on page 60*



**Build it YOURSELF**

**Heathkit HIGH FIDELITY PREAMPLIFIER**



MODEL WA-P2

performance and most attractive in appearance. Fulfills every requirement for true high fidelity performance. Shpg. Wt. 7 lbs. . . . . **\$19.75**

**Heathkit WILLIAMSON TYPE 25 WATT AMPLIFIER (PEERLESS TRANSFORMER)**

This latest and most advanced Heathkit hi-fi amplifier has all the extras so important to the super-critical listener. Featuring KT-66 tubes, special Peerless output transformer, and new circuit design, it offers brilliant performance by any standard.

Bass response is extended more than a full octave below other Heathkit Williamson circuits, along with higher power output, reduced intermodulation and harmonic distortion, better phase shift characteristics and extended high frequency response. A new type balancing circuit makes balancing easier, and at the same time permits a closer "dynamic" balance between tubes.

Aside from these outstanding engineering features, the W-5 manifests new physical design as well. A protective cover fits over all above-chassis components, forming a most attractive assembly—suitable for mounting in or out of a cabinet. All connectors are brought out to the front chassis apron for convenience of connection.

Model W-5M consists of main amplifier and power supply on single chassis with protective cover. Shpg. Wt. 31 lbs. . . . . **\$59.75**

Express only. . . . . **\$79.50**

Model W-5 consists of W-5M, plus WA-P2 Preamplifier shown on this page. Shpg. Wt. 38 lbs. . . . . **\$79.50**

Express only. . . . . **\$99.00**

**Heathkit HIGH FIDELITY 20 WATT AMPLIFIER**



MODEL A-9B

This particular 20 watt Amplifier combines high fidelity with economy. Single chassis construction provides preamplifier, main amplifier and power supply function.

True hi-fi performance  $\pm 1$  db, 20 cps to 20,000 cps. Preamplifier affords 4 switch-selected compensated inputs. Push-pull 6L6 tubes used for surprisingly clean output signal with excellent response characteristics and adequate power reserve. Full tone control action. Extremely low cost for real high fidelity performance. Shpg. Wt. 18 lbs. . . . . **\$35.50**

**HEATHKIT High Fidelity "BUILD IT YOURSELF" amplifier kits**

**Heathkit WILLIAMSON TYPE (ACROUSOUND TRANSFORMER)**



This dual-chassis high fidelity amplifier kit provides installation flexibility. It features the Acrosound "ultra-linear" output transformer, and has a frequency response within 1 db from 10 cps to 100,000 cps. Harmonic distortion and intermodulation distortion are less than .5% at 5 watts, and maximum power output is well over 20 watts. A truly outstanding performer. W-3M consists of main amplifier and power supply. Shpg. Wt. 29 lbs., Express only. . . . . **\$49.75**  
Model W-3 consists of W-3M plus WA-P2 Preamplifier listed on this page. Shpg. Wt. 37 lbs., Express only. . . . . **\$69.50**

**Heathkit WILLIAMSON TYPE (CHICAGO TRANSFORMER)**



This hi-fi amplifier is constructed on a single chassis, thereby affecting a reduction in cost. Uses new Chicago high fidelity output transformer and provides the same high performance as Model W-3 listed above. An unbeatable dollar value. The lowest price ever quoted for a complete Williamson Type Amplifier circuit. Model W-4M consists of main amplifier and power supply on single chassis. Shpg. Wt. 28 lbs., Express only. . . . . **\$39.75**  
Model W-4 consists of W-4M plus WA-P2 Preamplifier. Shpg. Wt. 35 lbs., Express only. . . . . **\$59.50**

**COMBINATION W-5M and WA-P2**



Model W-5M consists of main amplifier and power supply on single chassis with protective cover. Shpg. Wt. 31 lbs. . . . . **\$59.75**  
Express only. . . . . **\$79.50**  
Model W-5 consists of W-5M, plus WA-P2 Preamplifier shown on this page. Shpg. Wt. 38 lbs. . . . . **\$79.50**  
Express only. . . . . **\$99.00**



**BENTON HARBOR 5, MICHIGAN**

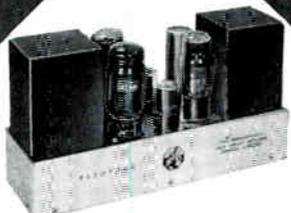
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# HIGH FIDELITY



**AF-860 AM-FM PILOTUNER**  
The Ultimate in engineering skill and sensitivity — symbolic of the complete line of superb Pilotuners.

## PILOTUNERS



**AA-904 PILOTONE AMPLIFIER**  
World famous Ultra-linear Williamson circuit — an electronic triumph characteristic of the wide range of Pilotone Amplifiers.

## PILOTONE AMPLIFIERS



**PA-913 PILOTROL**  
Professional Preamplifier-Equalizer, an innovation in audio control — and other fine products, including the portable Encore; reflect the Pilot "Standard of Excellence."

FOR TECHNICAL DATA AND BROCHURE, WRITE TO:

**Pilot**  
RADIO CORPORATION

37-06 36th Street  
Long Island City, N. Y.



## "HI-FI" DEFINED

Continued from page 59

Galli-Curci and Caruso scratchily soared in arias from 'Lucia', and the *Wang Wang Blues* gave record collections a bit of the old zip." Hi-fi has changed our tastes in music so much that it's hard to believe that people ever listened to what the old Edison machines used to scratch off those cylindrical records. Probably it's better that we forget.



## IDEAS for YOU

IN ORDER to keep you up-to-date on new equipment and components that are being brought out, illustrations have been omitted in this Department, enabling us to bring more items to your attention in the space available. You will find the manufacturer's name and address after each description. Use the Catalog Request Cards bound into this magazine to send for bulletins and descriptive literature, so that you will have the full details.

### Elgin Metal Cabinets

Designed to take standard rack panels 8 $\frac{3}{4}$  by 19 ins., with a chassis up to 15 ins. deep, these cabinets are attractively finished in two-tone metallic gray enamel. There is a choice of three methods of ventilation, making them well adapted for mounting tuners, amplifiers, and audio control panels in a professional manner. Price is about \$24. *Elgin Metalformers Corp., 904 N. Liberty St., Elgin, Ill.*

### Tape Recorder Guide

A 127-page how-to-do-it manual entitled "The Revere Tape Recorder Guide" has been published by Dr. Kenneth J. Tydings, author of several camera-guidebooks. Chapters cover methods of obtaining best results with recording on tape and play-back, and a great variety of uses for tape equipment. Although concerned particularly with Revere machines, this book is valuable to owners of all makes of tape recorders. Price is \$1.95. *Tydings Book Publishing, Inc., 64 W. Park Ave., Long Beach, N. Y.*

### Berlant Professional Recorder

This equipment, suitable for portable use or permanent mounting, is divided into two units. The recorder, on one panel, takes reels up to 10 $\frac{1}{2}$  ins. without extension arms, has three heavy-duty motors

Continued on page 61



## "It's" 'SONODYNE'

MULTI-IMPEDANCE DYNAMIC MICROPHONE

## at Recording Time"

— say actual users\* in the field and here are a few reasons why . . .



"This microphone has been used for tape recording 15-minute shows for future airing on a nearby radio station. We like it fine, and it does take a beating." *Speech and Drama Director, Ind.*



"We are using this microphone with good results on our recorder." *Audio-Visual Librarian, Va.*



"Wonderful for wire recording purposes and P.A. use. I use it mainly for recording." *Sound Service, Massachusetts*



"Used for recording organ music. Performance is very satisfactory; especially good on highs." *Recording Professional, Colorado*



"Very good output and fidelity. Used for recording for broadcast purposes." *Producer and Director, Canada*



"Excellent results in recording and for comments in the showing of motion pictures." *Amateur, New York*

Model "51" Sonodyne • List Price \$47.50

Available at  
Shure Distributors Everywhere!



\* Individual names available on request.



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Please send me FREE Shure Microphone catalogs.

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## IDEAS FOR YOU

Continued from page 60

including a 2-speed direct-drive induction motor. Tape speed is 7½ and 15 ips, or 3¾ and 7½ ips, with fast forward and rewind controls. Single track, dual track, or bin-aural heads are available. The separate control unit has microphone and line gain controls, output control, monitoring jack, and 4½-in. signal meter. Price is \$470 to \$695, according to the heads furnished. *Berlant-Concertone, 4917 W. Jefferson Blvd., Los Angeles 16*

### GE Equipment Cabinet

Designed to hold a complete hi-fi installation except for the speaker, this cabinet is finished in blonde, cherry, or mahogany veneer. Divided top compartments are arranged to house a tuner, preamplifier, and record-player. Corresponding compartments below are intended for an amplifier and for record storage. These sections have doors which drop down to serve as shelves. Blank, removable panels can be cut to take any type of equipment. *General Electric Co., Radio and TV Div., Electronics Park, Syracuse, N. Y.*

### D & R Flutter and Wow Meter

Model FL-3B measures flutter and wow of any recording or reproducing system with a direct-reading meter of 0 to .5% and 0 to 2% full scale at 3,000 cycles. An internal oscillator furnishes this frequency for measuring purposes. Input impedance is .25 megohm; required input signal .4 volt minimum. *D & R, Ltd., 402 E. Gutierrez St., Santa Barbara, Calif.*

### Stylus Brush

This is a very simple, practical type, consisting of a spring-mounted brush, adjustable as to height, carried on a base that has an adhesive cork pad on the bottom. The brush is located where the stylus will swing over it when the arm is brought to its normal resting place. Price is \$1.00. *Prosound Corp., 175 5th Ave., New York 10*

### Altec Preamp

An admirable innovation in preamp design has been introduced by Altec. A hinged front cover hides all controls except the volume and on-off switch, but when the door is dropped down, there are controls for selecting 25 combinations of equalization, tone controls, volume or loudness controls, input switch, and tape monitoring switch. At the rear are 2 low-level and 3 high-level inputs with individual gain controls. *Altec Lansing Corp., 161 Sixth Ave., New York 13*

### Bogen 2-Unit Radio-Phonograph

Called the Nassau model, this equipment comprises an FM-AM tuner and 10-watt amplifier, and a Collaro 3-speed changer with a GE pickup, assembled in a slide-

Continued on page 62



## THE INVESTIGATOR

The most controversial recording in years.

**NOW ON HI-FI TAPE**

### The RECORDED-TAPE-OF-THE-MONTH CLUB

Selection No. 102 for April only **\$5.95** for Club Members

A one hour long political satire classic that will live long after the men lampooned have left the scene and been forgotten. Cost to non-members \$8.95. **SPECIAL NON-MEMBER PREVIEW ONLY 50¢**

#### JOIN THE CLUB AND SAVE

Membership in the Recorded Tape of the Month Club costs \$2 for 6 months. The highlights of each monthly club selection are previewed for members on a FREE 4" monthly preview reel. The monthly selections are available in your choice of 3¾ i.p.s., single-track 7" reel, or 7½

i.p.s., double track 7" reel, or 3¾ i.p.s., double track 5" reel. Members may purchase as few as two of the monthly tapes at \$5.95 each. For each three monthly tapes purchased members receive a full length Free Bonus Tape of their own choice.

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"Musical Notes from a Tourist's Sketch Book," \$5.95 for Club Members, \$8.95 for non-members.

#### SELECTION No. 103 for MAY

Mozart Piano Concerto No. 17 in F Major. Performed by Oklahoma City Orchestra. Directed by Victor Alessandro. Piano Soloist—Leonid Hambro.

#### 33 1/3 RPM RECORDS

The Investigator is available on LP records . . . \$5.95 plus 50¢ handling and postage.

#### SPECIFY YOUR CHOICE ON YOUR ORDER:

- Choice No. 1. Join the club — send \$2 membership fee NOW — receive FREE preview tape for 6 months.
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- Choice No. 3. As a non-member order selection 101, 102 or 103 for \$8.95 each, or a 50¢ preview tape.

Please add 3% sales tax for all N. Y. C. deliveries.

**JOIN THE CLUB — ORDER YOUR SELECTIONS TODAY!**

Send for Free Brochure.

**RECORDED TAPE of the MONTH CLUB Inc., Dept. M-2**  
P. O. Box 195, Radio City Post Office, N. Y. N. Y.

## TO HELP YOU SELECT THE CORRECT HI-FI ENCLOSURE

**AUTHORITATIVE GUIDE**



**KARLSON**  
ULTRA-FIDELITY  
ENCLOSURES

FREE

HELPFUL

IDEAS

FULL OF FACTS

COMPLETE

Send for this free booklet. It contains all the facts you need to select and install the enclosure for the discriminating...the enclosure by which all others are measured.

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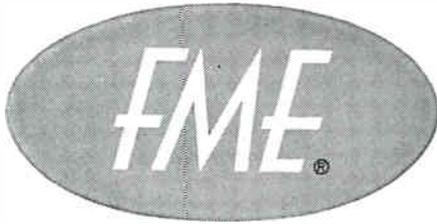
Please send copy of your latest book "The Karlson Enclosure" to

Name \_\_\_\_\_

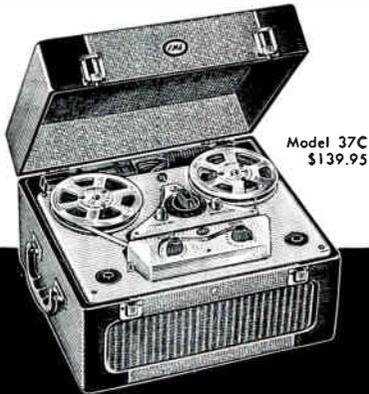
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## America's Greatest Tape Recorder Values



Model 37C  
\$139.95

Low-Priced, Two-Speed  
Dual-Track



Model 47A  
\$159.50

Only in FME Tape Recorders do you get so many desirable features at such reasonable prices. Extraordinary tone quality, precision construction, and dependable performance make FME Tape Recorders unrivaled values in the low-priced field. Made and guaranteed by the makers of world-renowned Federal Photo Enlargers. Write for descriptive circulars with specifications.

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## IDEAS FOR YOU

Continued from page 61

drawer chairside cabinet. This works into an 8-in. speaker and a tweeter, mounted in a separate cabinet. Price of the complete system is \$349.50 for mahogany finish, or \$357.75 for blonde korina. *David Bogen Co., Inc., 29 Ninth Ave., New York 14*

### Rauland-Borg FM-AM Tuner

Model HF 155 is a pancake design only 4 ins. high, contained in a metal case perforated across the rear. Circuit has a stage of tuned RF dual limiters, AFC with a cutout on the selector switch, and a cathode follower with two outputs. The tuning control is of the flywheel type. Five-position selector switch is for power on-off, AM, FM-AFC, FM, and TV. *Rauland-Borg Corp., 3515 W. Addison St., Chicago 18*

### Electro-Voice Speaker System

Compact Skylark model has two tapered horn ports to load an E-V SP8C coaxial speaker. This unit has a large cone and a smaller one, with a mechanical crossover at about 1,500 cycles, and an electrical crossover at 3,500 cycles to a tweeter. Cabinet is 33 ins. wide, 14 high, and 10¾ deep. Price is \$89.70 in mahogany, or \$92.70 in korina blonde finish. *Electro-Voice, Inc., Buchanan, Mich.*

### Heath Amplifier

Model W5M is a 25-watt Williamson-type amplifier kit, including a special Peerless output transformer, and KT-66 tubes. The chassis is fitted with an attractive perforated steel cover to protect the components of the amplifier and power supply. Across the front of the chassis are the fuse, two AC outlets, pin jacks for plugging in a test meter, terminals for output of 4, 8, and 16 ohms, the input pin jack, and a connector for the preamp. This amplifier can be used with the Heath WA-P2 preamp, or any other type. *Heath Co., Benton Harbor 5, Mich.*

### Components 45-RPM Spindle

Thick enough to accommodate up to three 45-rpm records, this lathe-turned spindle is intended specifically for use on the Components professional-type turntable, although it can be used on any other make. *Components Corp., Denville, N. J.*

### Sonotone Amplifier and Control

Designed for use with a ceramic phone pickup, model HFA-100 is a 12-watt amplifier and audio system control. It has a selector switch for phonograph, radio, tape, and extra input; treble, bass, and volume controls; and power on-off switch on the front panel, with associated input connections at the rear. Price is \$117.50 in a wood case, or \$99.50 without the case, for panel mounting. The same facilities are

Continued on page 63

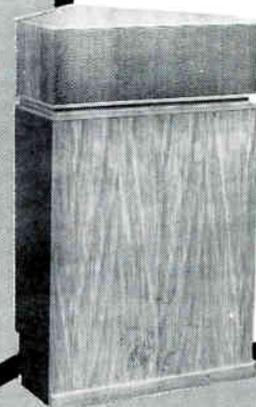
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**IDEAS FOR YOU**

*Continued from page 62*

provided in the CU-50 unit, a self-powered control for use with a ceramic pickup, to feed any type of power amplifier. Price is \$59.00 in a wood cabinet, or \$49.50 without the cabinet. *Sonotone Corp., Elmsford, N. Y.*

**RTMC Sample Tape**

To acquaint tape enthusiasts with latest Tape-of-the-Month selection "The Investigator", a 4-in. preview reel is offered at 50c, or free to new members. The full tape, one hour long, is available at 3¾ ips single or double track, or 7½ ips double track, at \$5.95. *Recorded-Tape-of-the-Month Club, Inc., Dept. M2, Box 195, Radio City Station, New York*

**Transvision TV Kits**

To facilitate assembly, these kits are broken down into nine separate units which can be put together separately, and then assembled into a complete receiver. Eight different kits are available, for 17, 21, 24, and 27-in. picture tubes, with remote control an optional feature. A new kit, model E1, is so designed that circuits for color reception can be added at a later date. *Transvision, Inc., New Rochelle, New York*

**Gates Professional Turntable**

This cabinet-mounted turntable is suitable for home use in the more elaborate installations. Starting and speed selection are controlled by a single lever. The synchronous driving motor has pulleys of three diameters, working with a neoprene idler which drives the rim of the turntable. This mechanism and the tone arm are mounted on a metal plate 21¼ ins. square. Metal cabinet is 21½ ins. square by 29½ ins. high. *Gates Radio Company, Quincy, Ill.*

**RESCO Amplifier Template**

A full-size template is now available to those planning to build the 60-watt ultralinear Williamson amplifier with the Acro TO-330 output transformer and four KT66 tubes. The template will be sent on request, without charge. *Radio Electric Service Co., 709 Arch St., Phila. 6, Pa.*

**Manfredi Enclosures**

This new line of cabinets includes enclosures for loudspeakers and bases for record-changers and turntables, of highly-finished hard woods. *Manfredi Wood Products Corp., Huntington, N. Y.*

**Garrard Changer Mounting**

To simplify the mounting of the various types of Garrard changers, a new suspension assembly has been designed. The mountings are simply pressed into two-step holes in the motor board. Spring strips snap through to catch under the board,

*Concluded on page 64*

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*Benjamin Franklin*



*Isaac Newton*



*Francis Bacon*

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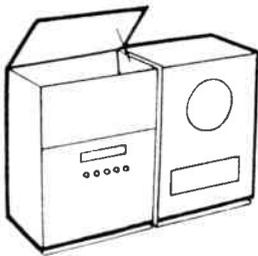
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Model 80 has lift lid, removable panels. Bass reflex tuned for 12" or 15" speakers. Overall dimensions: 33½"H, 23"W, 16"D. M80 tuner section, inside: 20"H, 21¾"W, 15½"D. M8112, M8115 baffle volume: 6 cubic feet. ¾" white pine

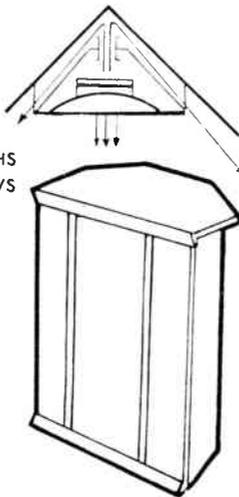
Model 80 equipment cabinet kit \$27.00  
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## Rebel\*4

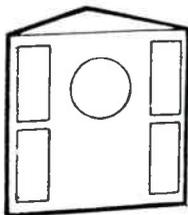
DIRECT RADIATION OF HIGHS  
BACK RADIATION OF LOWS

REBEL enclosure development entails a cavity and slot port, to form a resonant chamber, and a horn coupled to the slot. The slot is loaded by the horn; the proportioning of slot, cavity and horn provide bass response below 100 cycles which corresponds in efficiency to the front-of-cone direct radiator response above this critical 100-cycle point. There are two ways one might consider the function of this horn. One is a bass reflex with a horn acting as a resistive load on the port. System resonances are damped by useful radiation resistance while the horn does not cost anything. It is already formed by the room corner. Again, if a full horn were added below the 100-cycle point bass response would be boomy and unnatural. But, in the Rebel enclosures, the cavity-port combination acts as an acoustic low pass filter. And its design is such that low-end response will compare with response higher in the sound scale.



MODEL K-12—\$36.00  
MODEL K-15—\$42.00

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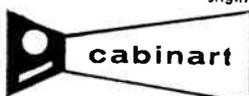
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All kits precision-cut to size, baffles pre-cut for 12" or 15" speakers, Kits include Saran plastic acoustic cloth, glue, sandpaper, plastic wood, hardware, assembly instructions and finishing instructions. Write for complete catalogs and nearest Cabinart kit dealer.

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Model 63, 15" speaker—\$23.95  
slightly higher west end south

\* Trade Mark

KIT FORMS BY



75 North 11th Street  
Brooklyn, N. Y.

## IDEAS FOR YOU

Continued from page 63

and washers hold the mountings above. Then the height of the plate carrying the changer can be adjusted with a screwdriver from the top. *Garrard Sales Corp., 164 Duane St., New York 13*

### Ronette Microgroove Pickup

Type RA-284 crystal pickup is designed for playing 33 and 45-rpm records. It should be plugged into the "magnetic" input terminals of a preamp, with a load resistance of 120K ohms. Price with a sapphire stylus is \$6.60; diamond stylus is \$15.00 extra. *Ronette Acoustical Corp., 135 Front St., New York 5*

### Allied Hi-Fi Catalog

Presents information on hi-fi components and their installation, together with illustrated descriptions of the latest equipment. *Allied Radio Corp., 100 N. Western Ave., Chicago 80*

## INSIDE INFORMATION

Continued from page 48

Rated output is 12 watts. There are three 12AX7's working into two 6V6GT's, with a 5Y3GT rectifier. Four loops are employed to give 15 db negative feedback. Front panel controls are for: 1) selector for tape, radio, and turnover marked 800, 500 RIAA, 500 LP, and 400 AES; 2) rolloff, marked 0, 6, 10.5 LON, 12 AES, 13.7 RIAA and 16 LP; 3) loudness; 4) level and power switches; 5) bass; and 6) treble.

Pin jacks on the top of the chassis are for: radio and tape inputs of .5 megohm each; phono inputs of 22,000 and 44,000 ohms; and tape output for off-the-air recording. There is also an on-off switch for a rumble filter.

At the rear of the chassis are speaker terminals of 4, 8, and 16 ohms, two AC outlets, and a 2-amp. fuse. The chassis is 11½ ins. wide, 4¾ ins. high including the feet on the bottom cover. Mounted in a cabinet, the depth is 8⅝ ins. behind the panel, including the fuse mounting which protrudes at the back. Weight is 13½ lbs. Price of the 55C is \$79.50. An FM-AM tuner of matching design is under way. *Grommes Division, Precision Electronics, Inc., 9101-Mg King St., Franklin Park, Ill.*

PRELIMINARY information has just been received on the Browning model L-500 shortwave AM tuner, Fig. 7, intended for use in conjunction with hi-fi systems. Covering 19 to 49 meters, it can be used to pick music and news programs from all over the world, and for the study of foreign languages. Broad and sharp tuning are provided, and a 10-kc. whistle filter, in order to permit reception of the best audio quality that receiving conditions permit. Circuit includes cathode follower output and power supply. Price is \$87.50. *Browning Laboratories, Inc., Winchester, Mass.*

## REBECKS TO RECORDS

Continued from page 26

curiosity would be sufficiently strong to buy recordings of them to satisfy it.

It will probably be a very long time before any of us have an opportunity to hear either of the operas by Horatio Parker, for which the goodly sum of ten thousand dollars was paid — for each, that is. It's possible we might honestly not give a tinker's damn if we could hear them, but they are surely as good or better than countless recordings of accepted Europeans. And while we are on the subject, there is operatic music by Converse that may well be revived. If some of these works were sung in almost any foreign language, and palmed off as the work of an obscure or forgotten European composer they would probably become revered and successful. Mind you this in no way is an attempt to justify any product because it is American; these are minor works, and such I maintain them to be.

And what of the moderns? The Americans are now producing some of the most provocative of all modern music. Many are well represented, as are Barber, Copland, and Thomson almost exhaustively. George Antheil is known by only a smattering of his works; Henry Cowell, whose vast output is almost untouched, will loom as one of the important creative lights in the future. Wallingford Riegger, who will be 70 this year, is only now coming into the prominence he deserves. His *Third Symphony*, plus many other works (including his brilliant *New Dance*) are finding their way into record catalogues. Elliott Carter, whose music is regarded as forbidding and severe, is perhaps the number one man for highest-brow listeners. Pulitzer prize-winning Quincy Porter is still little more than a name to collectors who will, in the future, be devotees of his quartets. They are some of the finest written in America. Just released is a symphony by Robert Ward, a *Saxophone Concerto* by Henry Brant, and two symphonies by Paul Creston. These should interest all collectors. Boston born, Scotch-Armenian Alan Hovhaness, who has written some ravishingly beautiful music, is appealing to the collector instincts, and his records are clanking up significant sales figures. Another who must be watched is Lou Harrison, represented now by a titillating *Suite* conducted by Stokowski and a disarmingly simple *Suite for Cello and Harp*. More complicated in nature and construction is Roger Goeb, whose Bartók-like creations have the intellectual furrows that discourage musical love at first sight. So, too, is the music of Ben Weber — not to be confused with Carl Maria von.

Thus do composers contribute to the progress from rebecks to records, and some day a new piece will be written about the changes in the musical scene, from rebecks to — exactly what we do not know now!



- ★ STRIKING DESIGN
- ★ CASCODE FM
- ★ VOLTAGE-REGULATED POWER SUPPLY
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OTHER DISTINCTIVE DESIGN features of this superlative tuner include: squelch for FM, eliminating all noise between stations; separate

switches to control AFC, squelch, and 10-kc. filter; 3-microvolt sensitivity for 20-db FM quieting; color-coded jacks for service and alignment tests; expensive 10-kc. filter to eliminate AM inter-channel whistle when present; delayed, amplified AVC on AM, with low-distortion detector; entirely new FM circuit with permeability tuning; Guaranteed response on AM to 10,000 cycles; chromium-plated bezels, aluminum knobs, hand-engraved panel; metal cabinets in gray or gold available.

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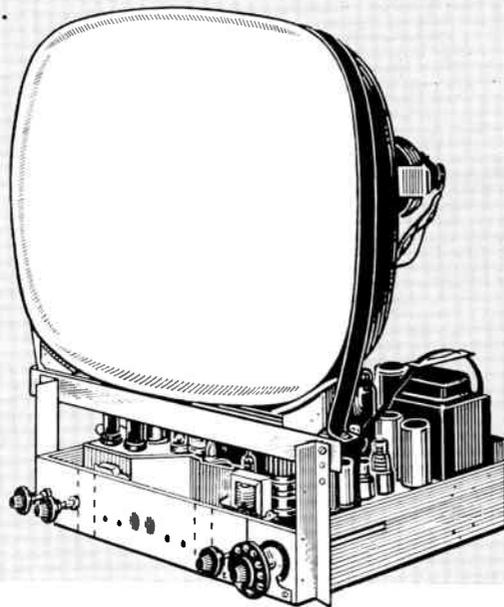
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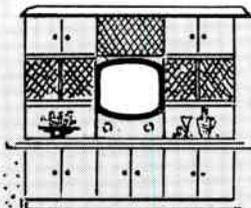
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### FOR THE RECORD

Maybe a hassle with a difficult customer was responsible for this letter from Alan Levitt of Music, San Francisco:

"Here's a thought for your readers who have had trouble deciding about what kind of a hi-fi system to buy. We think we have discovered the most unique, amazing, and inexpensive phonograph available at the present time, and we offer it now with humble pride.

"The phonograph consists of a steel needle protruding from a wooden stick. This, in conjunction with an inexpensive turntable, patience, and a true love of music, is all that is really necessary. The object is to hold the piece of wood between one's teeth while making contact with the grooves of the record. The result is *glorious* music right in your head! Some of our customers who have tried it say it's like having an orchestra in the head which, we admit, is better than a hole.

"One note of caution should be sounded: on reaching the end of a record, some people who have tried this have been known to get so dizzy that they kept on spinning around without changing.

"If any of your readers want to secure one of these amazing hi-fi systems, by all means have them see us. The supply, as you may have guessed, is limited."

Comment from our Music Editor: My compliments to Alan Levitt for a wonderful idea. On second thought, it occurs to me that the needle in the end of a stick could be used to better advantage than holding it on a record. Could be used, for example, to find out if people who tie up listening booths all day long brought their pocketbooks with them, or if that bulge in the back pocket is just a handkerchief.

### WORKSHOP PROJECT NO. 5

*Continued from page 41*

work, but it does give the wiring a finished, professional appearance. *Time: 55 minutes. TOTAL TIME: 7 HOURS, 40 MINUTES.*

Since we didn't have the Techmaster preamp to plug into this amplifier, we connected an AC on-off switch across terminals 6 and 7 of the cable connector. This done, and the amplifier connected to an otherwise complete audio system, we turned on the amplifier for a few seconds, and then switched it off for a minute. This was a precaution in case the electrolytic condensers were not completely formed, and also to see if there was any fault in the wiring. When we turned it on again, everything was perfect, and the amplifier performed in a thoroughly creditable manner.

Thus, if you are thinking of trying your hand at putting one of these units together, we can say: Why not? We did it successfully, and you should be able to do it, too, if you proceed with care, and follow the instructions exactly, step by step.

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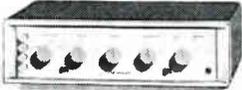
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orchestras, quaint folk music or news  
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is of the highest quality. It's the first  
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## BUY, SELL or SWAP

The opportunity to buy, sell, or swap items of equipment or records through the use of this department is made available as a service to readers of MUSIC at HOME without charge.

Copy should be limited to 35 words. Items are not accepted from business firms. The Publisher reserves the right to reject copy which, in his opinion, does not conform with the standards of this Magazine.

SELL or SWAP: Rek-O-Kut G-2 standard two-speed 16-in. turntable. Cost \$137.50. Top condition. Desire 12-in. three-speed, or will offer to first \$50. Jack Hortley, 88 Diamond Bridge, Hawthorne, New Jersey.

SELL: Complete Electro-Voice speaker system. SP 12 speaker, T-35 Super Sonax, AT 37 level control, X36 crossover network. All mounted in an Aristocrat enclosure. Perfect condition, only \$95. Harry J. Bunn, 1352 New Jersey Ave., Marysville, Mich.

SELL: Complete pick-up system: Livingston Universal arm, General Electric cartridge and diamond stylus. Complete with shielded lead, \$19. Harry J. Bunn, 1352 New Jersey Ave., Marysville, Mich.

SELL: Garrard RC 80 changer, Turner 34X crystal microphone, Electro-Voice 731 microphone, E-V deluxe floor stand, Jensen base reflex A-121 with 12" speaker, and University Dual tweeter model 4402. No reasonable offer refused. R. L. Stewart, 179 Delmont Ave., Worcester, Mass.

SELL: Heath preamp. Brand new, assembled by expert set builder, \$39.95. H. D. Mohr, 719 Sheridan, Columbus 9, Ohio.

SELL: Revere T-100 tape recorder, \$100. Wagner-Nichols microgroove 3 $\frac{1}{2}$  rpm disc recorder, \$100. York tenor saxophone, \$50. Scott 111-A Dynaural noise suppressor, \$15. All excellent, priced F.O.B. Marilyn Phillips, 311 Penfield, Rockford, Illinois.

SELL: Ampex 400-A tape recorder, \$850; Shure 44-S dynamic microphone, \$37.50; Williamson amplifier, Peerless S-265Q output, Ultra-Linear, KT-66's, \$75. Prices F.O.B. All in excellent condition. V. R. Hein, 418 Gregory, Rockford, Illinois.

SELL or SWAP for ham rig: Crestwood 401 high fidelity tape recorder. Used less than 50 hours. Superb sound. Original net \$199.50. Sell for \$150. Shipping prepaid in U. S. Foy Guin, Jr., Russellville, Alabama.

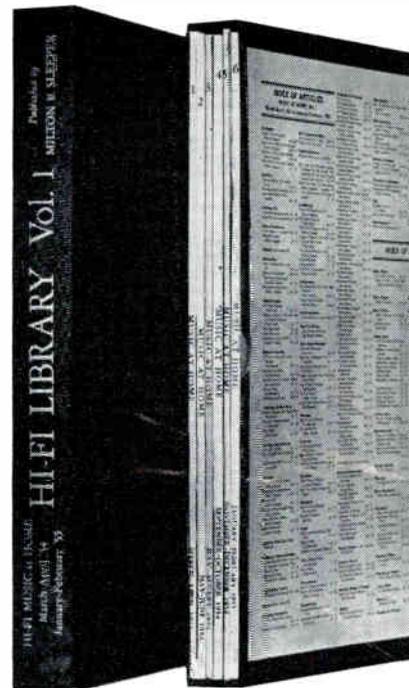
SELL: Slightly used tape recorders. TDC Stereotone Hi-Fi, 3 motors, dual speed recorder, \$196. (original price \$249.50); Wilcox-Gay \$108. (original price \$159.50). All in excellent condition. Robert Forman, 210 Burr Oak St., Kalamazoo 32, Michigan.

SELL or SWAP: Heath W4 amplifier with WP-2A preamp, new condition \$50; T-3 signal tracer, new \$20; Cabinet K-12 enclosure \$20; Garrard RC-80 with base \$40 (6 months). WANT: Altec 600-B National Criterion tuner to complete binaural installation. Jim Babcock, 4305 Park Ave., New York 57.

SELL: RCA professional studio tape recorder and Presto ST-950 tape recorder. Both have 7 $\frac{1}{2}$  and 15-in. speeds. Best offer. M. Rosenthal, 215 East 88th St., New York, N. Y., or J. Syrjala, Watkins 9-2981.

SELL: Rek-O-Kut LP743, excellent condition \$35. S. Goodman 9 to 5, Plaza 5-2425; evening, LONG BEACH 6-2117. 650 West Chester St., Long Beach, N. Y.

BUY: Gray 108B arm and Rek-O-Kut T12H. Must be in good condition. Send details and price to K. Sheehan, 84-25 Elmhurst Ave., Elmhurst 73, N. Y.



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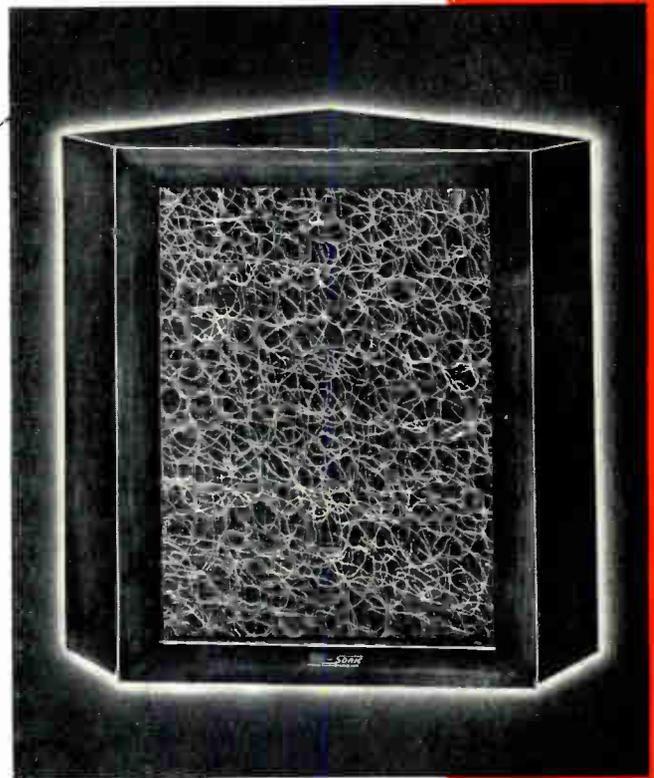
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