

HiFi/Stereo Review

FEBRUARY 1964 • 50 CENTS

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**We begin this issue
of HiFi/Stereo Review
with a quotation
from Audio:**

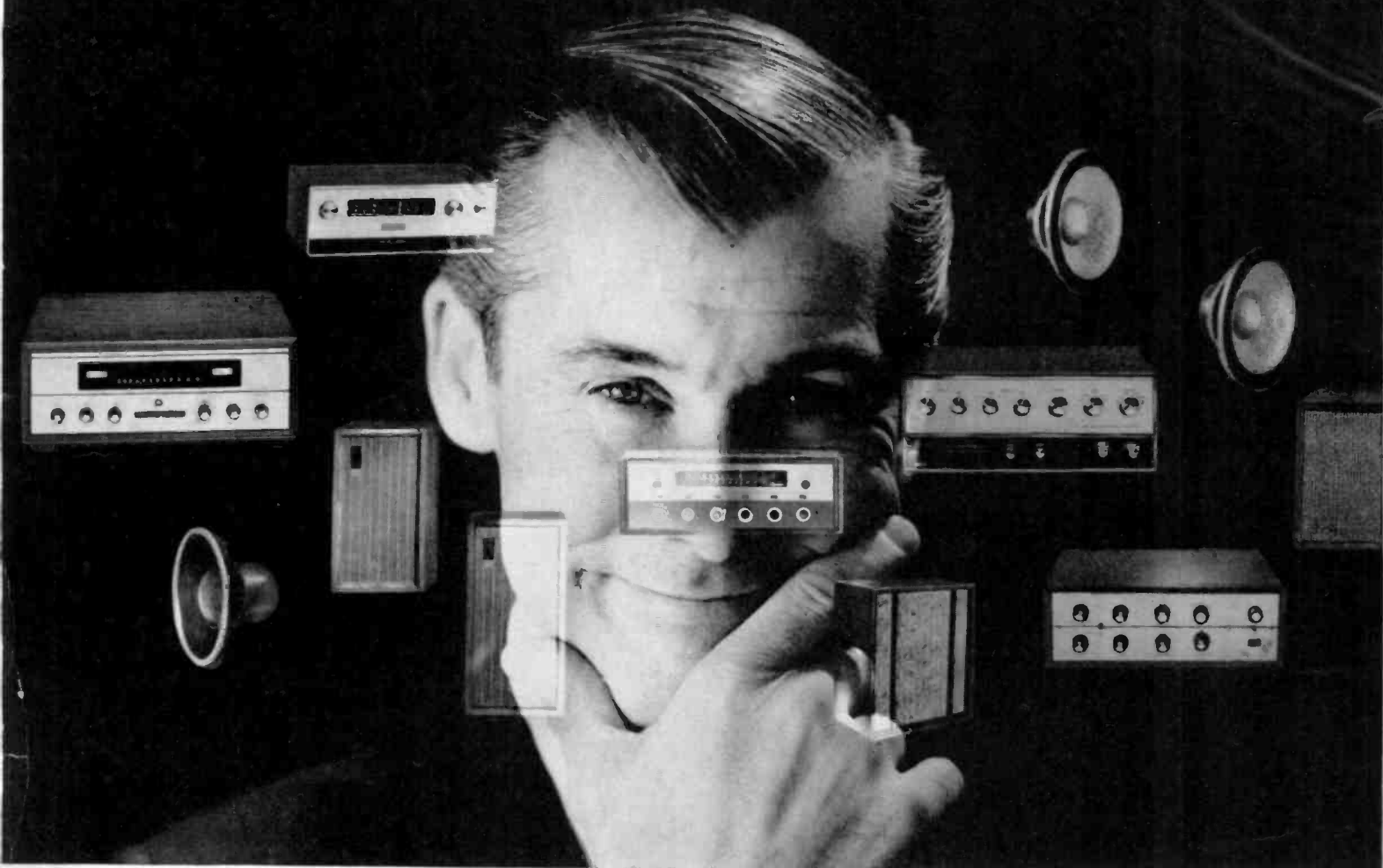
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—AUDIO magazine, December, 1963

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PUBLISHER
PHILLIP T. HEFFERNAN

EDITOR
FURMAN HEBB

MANAGING EDITOR
WILLIAM ANDERSON

MUSIC EDITOR
ROBERT OFFERGELD

TECHNICAL EDITOR
LARRY KLEIN

ART EDITOR
BORYS PATCHOWSKY

ASSOCIATE EDITOR
ROBERT S. CLARK

PRODUCTION EDITOR
MEL SCHINASI

CONTRIBUTING EDITORS

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MARTIN BOOKSPAN
HANS H. FANTEL
WILLIAM FLANAGAN
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NAT HENTOFF
JULIAN D. HIRSCH
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ADVERTISING SALES MANAGER
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ADVERTISING SERVICE MANAGER
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ZIFF-DAVIS PUBLISHING COMPANY

Editorial and Executive Offices (212 O'Regon 9-7200)
One Park Avenue, New York, New York 10016
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Midwestern & Circulation Office (312 Wabash 2-4011)
434 South Wabash Avenue, Chicago, Illinois 60605
Advertising: Jerry Sweeney
Western Office (213 Crestview 4-0285)
9025 Wilshire Blvd., Beverly Hills, Calif. 90211
Western Advertising Manager: Bud Dean
Foreign Advertising Representative
D. A. Goodall Ltd., London, England

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EDITORIALLY SPEAKING

by FURMAN HEBB

DOES an agency of the U.S. Government, in the interests of national defense, have the right to prevent an audiophile from enjoying his hi-fi system? This is a question music listeners in the Pittsburgh area have been asking for about a year now. Since last February, a new high-power Air Force radar unit in the Pittsburgh suburb of Oakdale has been causing audible beeps in hi-fi sets, radios, television sets, electronic organs, public-address systems—in every type of electronic playback equipment. The radar antenna makes five revolutions per minute, and thus the beep is heard every twelve seconds—three hundred beeps an hour, twenty-four hours a day. The radar unit, called the AN/FPS-24, is for the detection of enemy bombers and is part of a country-wide system of twenty-four such transmitters, most of which are being located in sparsely populated areas.

Despite the fact that the interference has made many hi-fi sets in Pittsburgh unusable, the Air Force disclaims any responsibility in the matter. Mimeographed instructions for coping with the problem note that "the cost of any necessary modification to commercial equipment must be borne by the owner of that equipment." This cost is estimated to be from ten to twenty dollars per system (hi-fi, radio, or television). It appears, however, that sometimes the interference cannot be eliminated at any price. George A. Hall, a Pittsburgh reader of ours, reports that an electronics engineer with special training in eliminating r.f. interference worked twenty-two hours on his set with no success. Other frustrated hi-fi listeners in the area have taken the extreme step of moving to sections of the city that are shielded from the radar by hills.

One wonders why the radar equipment wasn't installed fifty miles farther from Pittsburgh in the first place, so it would have been out of range; if only twenty-four AN/FPS-24s will suffice to cover the entire nation, surely the operating range of the equipment would not have been significantly affected. If the Air Force chooses to locate the equipment near a population center, it should be responsible either for eliminating any resulting interference or for fairly compensating the individual for the loss of his music system and for the loss of an important part of his recreation. Let us hope the city government of Pittsburgh will be successful in pressing the Air Force to accept its rightful responsibilities. Also, let us hope that future installations of this kind will be located well away from centers of population.

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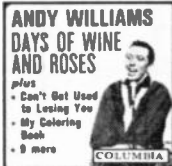
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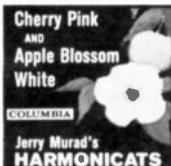
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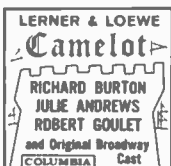
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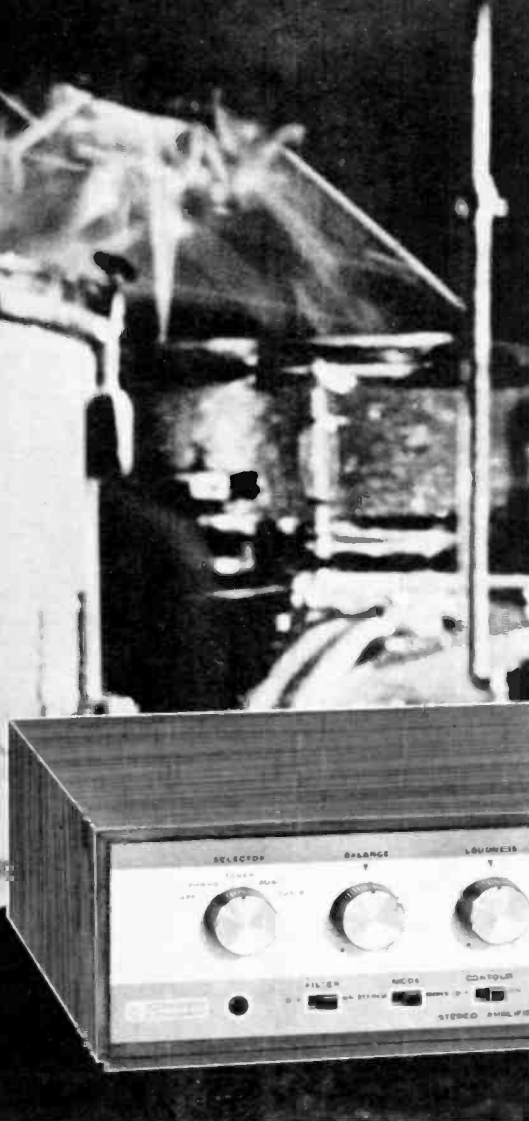
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LETTERS TO THE EDITOR

Opera File

● I would like to voice disagreement with George Jellinek's "Basic Library" choices (November) of the recordings of Verdi's *Otello* and Strauss' *Der Rosenkavalier*. I have heard Toscanini's reading of *Otello* many times, and consider it far superior to the new stereo release on London, which is recommended by Mr. Jellinek. In my opinion, it will be a long time before Toscanini's reading is topped, even with stereo.

In reviewing the recordings of *Rosenkavalier*, the author seems to have fallen over Elisabeth Schwarzkopf's singing and has ignored the fact that the Angel recording is cut. The London recording (A 4404) is complete and equally as beautiful as the Angel. The author also failed to mention the excellent version in Angel's Great Recordings of the Century series, with Lotte Lehmann, in my opinion a must for any opera collection.

MARTIN BERGER
Samia, Ontario

Mr. Jellinek replies: "It is perfectly natural for Mr. Berger to disagree with my choices, and I certainly respect his preferences. Toscanini's Otello is indeed unique, but can this be the preferred version when its Otello and Desdemona are both vocally inadequate? As for Der Rosenkavalier, the cuts on Angel are negligible, not even worthy of comment. I agree that both the London and the Angel are beautiful recordings; I prefer one, Mr. Berger the other. My failing to mention the Lehmann set was no oversight. The purpose of my article was to recommend one set for the beginning collector. Obviously it is impossible to please everyone, but at least it is reassuring to have discerning disagreements."

Record Cleaning

● HiFi/STEREO REVIEW is a welcome supplement to the music and recording industry and has, since its inception, been a lively and interesting magazine. In years past, we have been sporadic advertisers, and have regularly received the publication every month. It was with a great deal of dismay, therefore, that I read the article "Record Wear and Care" by John Milder in the November issue. This is a piece of shoddy journalism combining truths, half-truths, and downright distortions. I take particular issue with the section concerning how to keep records clean.

Mr. Milder, whose qualifications are not listed, either as a technician, chemist,

or even an empiricist, makes the statement that:

"Of the parade of antistatic and cleaning devices that have been marketed since the inception of the long-playing record, the majority have either not worked, had unwanted side-effects, or actually aggravated the problems. Most chemical sprays, for instance, lose their effectiveness as soon as they are dry, usually leaving hardened deposits in grooves to clog the stylus tip or to mask high-frequency modulations. Liquids that are viscous enough to avoid immediate evaporation also become ineffective after a while; but before they do, they may thoroughly gum up the stylus assembly. As for the antistatic cloths sold or given away by record stores, many dry out almost immediately; as soon as they do, their application to a record simply adds to the static charge."

Now, this paragraph is simply untrue.

The writer was the inventor of the first antistatic liquid (Stati-Clean), which was marketed within a year after the



inception of the long-playing records and has been marketed continuously since 1950. The millions of bottles and spray cans sold since that time and the thousands of letters from satisfied users testify to the inaccuracy of Mr. Milder's statement. If most chemical sprays lose their effectiveness as soon as they are dry, which ones is Mr. Milder talking about—and which of these has he actually tried and tested, and for how long?

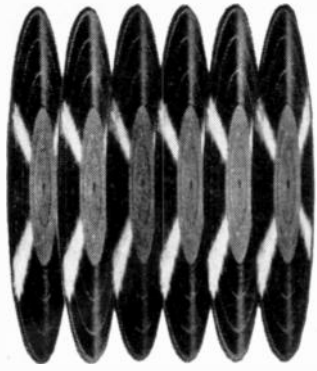
The antistatic action is much more subtle than Mr. Milder thinks it is. The fact is, the active antistatic material is deposited on the record as a residue in amounts as low as 1/2 of 1 per cent and will keep a record static-free for many months without any trace of residue in the grooves. I agree that application of some of the antistatic sprays or chemicals may, in the long run, cause groove-clogging, but as far as our own Stati-Clean is concerned, this is a remote possibility.

We also market a Discleaner Kit that includes an antistatic liquid called Formula S. This product contains a tiny fraction of a per cent of an active anti-
(Continued on page 8)

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- 604 WILLIAM SCHUMAN: Judith, A Choreographic Poem. GIAN-FRANCESCO MALIPIERO: Piano Concerto No. 3 (Benjamin Owen, Pianist).
- 605 PAUL HINDEMITH: Sinfonietta in E. CLAUDE ALMAND: John Gilbert: A Steamboat Overture. DAVID DIAMOND: Overture: "Timon of Athens".
- 606 BERNARD ROGERS: Dance Scenes. JOAQUIN RODRIGO: Cuatros Madrigales Amatorios: for Soprano and Orchestra (Audrey Nossaman, Soprano). VINCENT PERSICETTI: Serenade No. 5.
- 611 ELLIOTT CARTER: Symphony No. 1. ALEXEI HAIEFF: Divertimento.
- 613 PETER MENNIN: Symphony No. 5. JOAQUIN RODRIGO: Concerto Galante for Violoncello and Orchestra (Grace Whitney, Cellist).
- 614 ALAN HOVHANNES: Magnificat for Four Solo Voices, Chorus and Orchestra, Opus 157. CHOU WEN-CHUNG: All in the Spring Wind.
- 615 ALEXANDER TCHEREPNIN: Piano Concerto No. 2 (Alexander Tcherepnin, Pianist). ARTHUR HONEGGER: Suite Archaique.
- 616 ROBERT KURKA: Symphony No. 2. ROBERT WHITNEY: Concertino.
- 621 CHARLES IVES: Decoration Day. LOU HARRISON: Suite for Symphonic Strings.

- 622 HENRY COWELL: Thesis (Symphony No. 15). RODOLFO HALFFTER: Ballet Suite, "La Madrugada Del Panadero" (The Early Awakening of the Baker).
- 623 HARALD SAEVERUD: Peer Gynt Suite No. 1, Op. 23. GEORGE ROCHBERG: Night Music.
- 625 ROSS LEE FINNEY: Symphony No. 2. IAIN HAMILTON: Scottish Dances, Op. 32.
- 626 BENJAMIN BRITTEN: Violin Concerto No. 1, Op. 15 (Paul Kling, Soloist). PAUL BEN-HAIM: Pastorale Variee for Clarinet, Harp & Strings, Op. 31 (James Livingston, Soloist).
- 631 ZOLTAN KODALY: Symphony (1961). NELSON KEYES: Suite, "Music for Monday Evenings".
- 633 WALTER PISTON: Concerto for Viola and Orchestra (Paul Doktor, Violist). HALL OVERTON: Symphony No. 2 in One Movement.
- 635 CARLISLE FLOYD: The Mystery. Five Songs of Motherhood for Soprano and Orchestra (Phyllis Curtin, Soprano). ROBERT SANDERS: Little Symphony No. 1 in G.
- 636 FRANK MARTIN: Concerto for Violin and Orchestra (Paul Kling, Violinist). ERNEST BLOCH: Proclamation for Trumpet and Orchestra (Leon Raper, Trumpeter). TOSHIRO MAYUZUMI: Pieces for Prepared Piano and Strings (Benjamin Owen, Pianist).

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(Continued from page 6)

static agent which under no circumstances can ever clog record grooves and which keeps a record static-free for months.

Apparently Mr. Milder has not gone to the trouble of testing the many products on the market but is content to damn them all so that he can set up and make a case for his pet device, the Dust Bug, which is a ridiculously cumbersome device that most people have seen and turned down, because it is like introducing an ox cart on a superhighway.

The point made by Mr. Milder about the drying-out of antistatic cloths is just as irresponsible as that made against chemical sprays. If kept in the plastic containers in which they are sold, an antistatic record cloth can last for many months. Our own dust cloth certainly will last indefinitely when protected by its plastic envelope.

The type of article written by Mr. Milder, which pitches a particular pet product, is not in the interest of your readers. It certainly is not in the interest of your advertisers, present and potential.

H. A. BODKIN, VICE PRESIDENT
Walco Electronics Co.
Clifton, N.J.

Mr. Milder replies: "I must admit that I am not a chemist and do not have a laboratory. What I do have, however, are records, a record player, and samples of practically every record-cleaning device on the market—plus. I hope, enough common sense to figure out when a record-cleaner is doing its job and when it isn't."

"Specifically, while it is true that the better chemical-spray cleaners do reduce the amount of static electricity on the record, every chemical spray I have used (including Mr. Bodkin's Stati-Clean) has left a residue on the record—this to the extent that when a record has been treated (according to the directions) and then played, a noticeable amount of gummy material is deposited on the stylus. Furthermore, every chemical spray I have used has cleaned records so inefficiently that a subsequent use of that 'ridiculously cumbersome device,' the Dust Bug, turns up debris from the record grooves. In other words, I don't think it is necessary for one to have a background in chemistry to come to the conclusion that if one device picks up dirt from a record after it has been cleaned by another, the record wasn't cleaned very well in the first place."

More on Bandwidth

● With reference to David Hafler's letter in the December 1963 issue: My long-standing respect for Mr. Hafler and my recognition of his contributions to the high-fidelity industry do not prevent

(Continued on page 10)

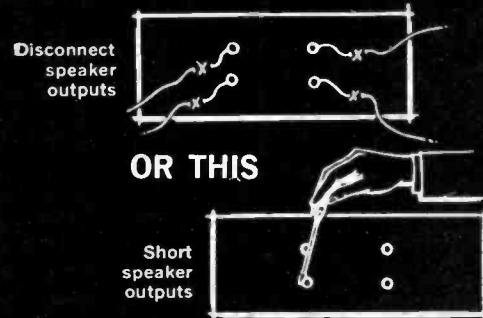
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Now a completely new concept, the Paralan 730 is ready for you after years of intensive research.

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Yes, entirely new planning, designing and building give Paralan 730 the newest, never before used, all solid state circuit for a major breakthrough in perfection of audio reproduction.

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THE PARALAN CARRIES A 3 YEAR DOUBLE WARRANTY. Paralan Electronics Manufacturing Corporation of New York will repair at no charge for parts and labor any unit returned in accordance with the warranty instructions enclosed with each Paralan unit for a period of THREE YEARS. WE WILL SHIP THE UNIT BACK PREPAID AND INSURED ANYWHERE IN THE CONTINENTAL UNITED STATES.

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The almost unbelievable low price of the Paralan 730 (not a kit)

Shipped Prepaid and Insured **\$249.50**
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Most low efficiency speakers are 4 or 8 Ohms; the Paralan 730 will deliver 100 watts total and 75 watts total, respectively, into these low efficiency units. 16 Ohm speakers are high efficiency and require only a few watts to drive them; the 50 watts total for 16 Ohm speaker systems usually exceeds their power requirements. THE PARALAN 730 WILL DRIVE ANY SPEAKER SYSTEM MADE, WITH THE FINEST TRANSIENT RESPONSE AND CLARITY.

100 WATTS into 4 Ohm Speakers
75 WATTS into 8 Ohm Speakers
50 WATTS into 16 Ohm Speakers

FREQUENCY RESPONSE
±2 db from 5 cps to 100,000 cps at 100 Watts
±0.5 db from 20 cps to 20,000 cps at any power up to 100 Watts

TOTAL HARMONIC DISTORTION
Less than 0.2% at 100 Watts
Less than 0.7% between 20 cps — 20,000 cps up to 100 Watts

TOTAL INTERMODULATION (IM) DISTORTION
Less than 0.2% at 100 Watts

HUM AND NOISE
At least 80 db below 1 volt, high level inputs
At least 60 db below 10 mv (1,000 cps), Phono Input

TONE CONTROLS
±20 db of range at 20 cps to 20,000 cps

INPUT SENSITIVITY FOR 100 WATTS
2 mv, Magnetic Phono (1,000 cps) RIAA Equalization
2 mv, Tape Head (400 cps) NAB 7 1/2 ips equalization
0.3 volt High Level

INPUT IMPEDANCES
47K Magnetic phono
220K Tape head
220K All high level inputs

SIZE
15 1/4" wide x 6 1/4" high x 8" deep with enclosure

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Taped sound retains full fidelity even after hundreds of playbacks ... yours to enjoy always ... on VIKING tape components, naturally.

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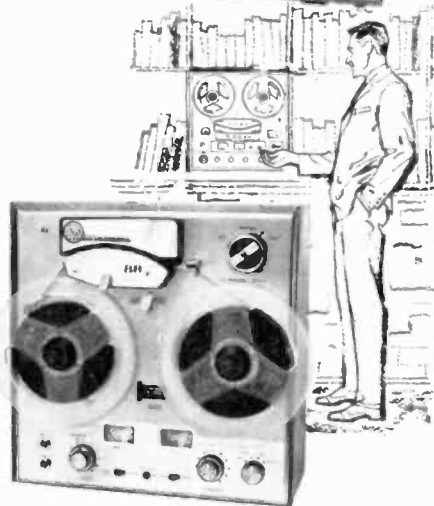
Retro-matic 220 — ultimate performance with tomorrow's features for discriminating audiophiles and professionals only.

Two-directional playback, quarter track stereo at two speeds. "Feather-touch" push buttons, remote control, 12 watt amplifier, simultaneous record/playback with 20-25,000 cps frequency response. Independent channel controls, "luma-touch" record buttons and illuminated VU meters. Photo electric run-out sensor, four heads, hysteresis capstan motor plus two reel drive motors and digital counter. Superbly styled with stainless steel face plate this compact operates vertically or horizontally.



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me from pointing out the inconsistencies and errors in his thinking. This is a case of a disciple with a new philosophy turning against the master who insists upon clinging to the old.

Mr. Hafler and I are in agreement on one point, for we both believe that the human ear responds to phase distortion. Mr. Hafler states that if distortion is added on top of distortion, or phase shift on top of phase shift, we are worse off than before the addition. Naturally. This, essentially, is the key to the entire discussion. However, Mr. Hafler qualifies his remarks by adding: "That is why nobody suggests limiting the response of an amplifier to 30 cps and to 15,000 cps—the range that encompasses practically all musical signals. If amplifiers had this



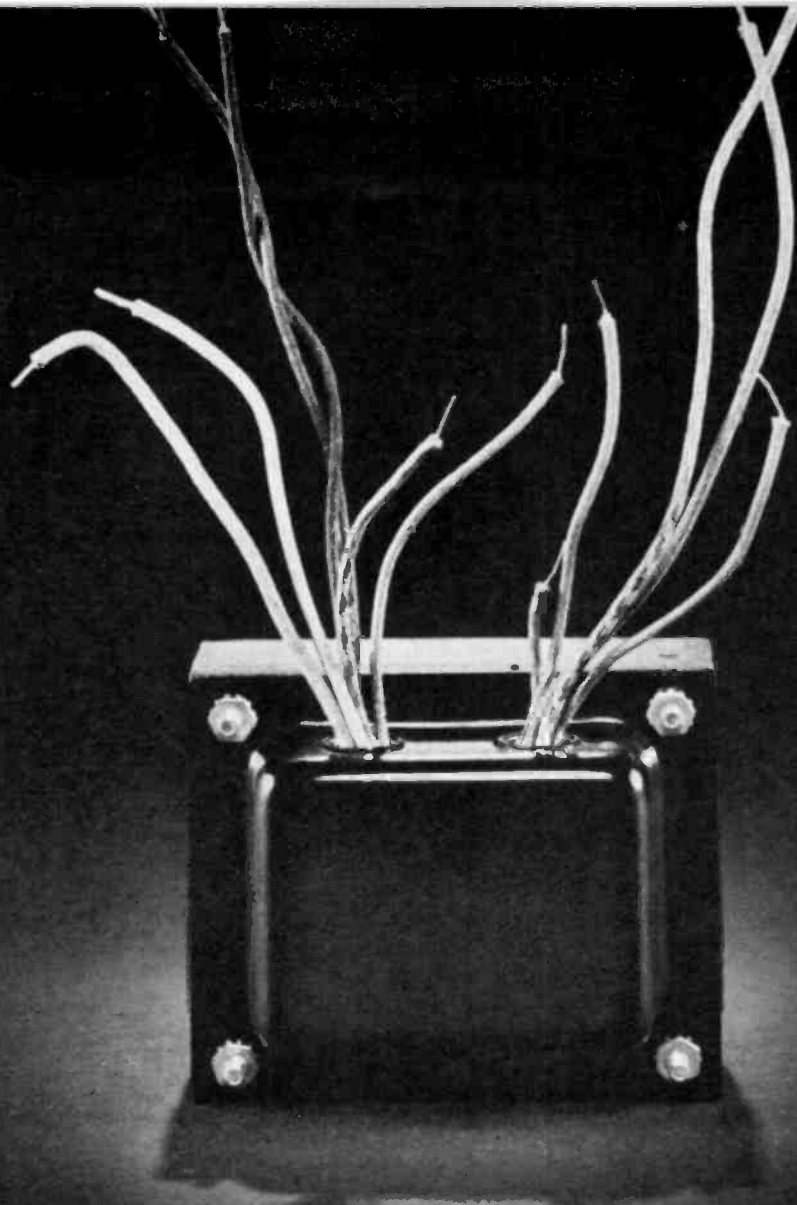
limitation, there might be adverse effects within this range. However, once the frequency response is extended several octaves past the normal audio spectrum, an amplifier that is well designed in other respects cannot affect the sound."

I must ask what Mr. Hafler means by "several octaves." "Several" means more than one. How many octaves more than one is he in favor of? Two? Three? Four? Two octaves above 15,000 cps is 60 kc. Two octaves below 30 cycles is 7.5 cycles. Does he extend the bandwidth of his amplifiers to these frequencies?

Let us assume that human hearing does not extend beyond 20,000 cycles per second (which is not true, since D. L. Pliminow ascertained that the ear can respond to transients above 20 kc even though the ear's normal high-frequency limit is half this frequency), and let us assume further that not a single recording has frequencies above 20 kc (which is also not true). Why, even in this case, should extended frequency response still be necessary to obtain perfect sound reproduction? Because if an amplifier's response is rolled off at 20 kc, or at 40 kc, which is Mr. Hafler's magic number, this roll-off, unless it is brought about by a phase-linear filter, will introduce phase distortion into the entire audio spectrum. Unfortunately, phase distortion, unlike harmonic distortion, is cumulative. This means that additional phase shift, added to the original phase shift of the program material, will cause a deterioration of the tone quality.

Any improvement in the chain of the reproducing system will result in cleaner sound. The negative philosophy of limiting bandwidth is, in my opinion, as bad as stating that an amplifier should have

(Continued on page 12)



EXTRAVAGANCE?

Scott uses heavy, oversized output transformers on their amplifiers and tuner/amplifiers. Most manufacturers settle for lightweights, as little as half the iron found in Scott equipment. Is this extravagance?

Scott feels the extra dollars put into jumbo output transformers is an absolute necessity! Just listen to the solid, clean bass response you get from all Scott amplifiers and tuner/amplifiers. To obtain this kind of bass you need power and lots of it in the vital low frequency range. And to get this extra power you must have big, heavy, oversized transformers like the ones you find on all Scott amplifiers (even the budget-priced Model 200B.)

Scott never economizes on performance or reliability. That's why

you find big transformers, conservatively rated components, and electrolytic aluminum chassis (for coolest operation and low hum) on all Scott equipment. With Scott equipment you make an investment in years of trouble-free listening enjoyment.

Scott extravagances can be found in the powerful 80-watt 299D and the modestly priced 48-watt 222D, as well as the previously mentioned 200B. They can be found on all Scott Kits. Visit your favorite hi-fi dealer for a demonstration or circle the number below on the information card bound into the magazine, and Scott will mail you complete information on all their quality products.



299D 80-watt Stereo Amplifier \$229.95

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LPEM 19 387 Stereo SLPEM 136 387

BARTOK: VIOLA CONCERTO—DAVID: VIOLA CONCERTO, First recording. P. Lukacs; Budapest State Orchestra, cond. J. Ferencsik.
LPM 18 874 Stereo SLPM 138 874

MARTIN: EVERYMAN: Six Monologues. THE TEMPEST: Three Pieces. Both first recordings. Dietrich Fischer-Dieskau. Berlin Philharmonic, conducted by the composer.
LPM 18 871 Stereo SLPM 138 871

SCHUBERT: PIANO SONATA IN B FLAT MAJOR, Geza Anda, piano.
LPM 18 880 Stereo SLPM 138 880

R. STRAUSS: DON JUAN—TILL EULENSPIEGEL—SALOME'S DANCE—FESTIVAL PRELUDE. Berlin Philharmonic; cond. K. Boehm.
LPM 18 866 Stereo SLPM 138 866

BEETHOVEN: SYMPHONY NO. 3, "Eroica". Berlin Philharmonic; cond. Herbert von Karajan. From the celebrated deluxe set.
LPM 18 802 Stereo SLPM 138 802

BEETHOVEN: SYMPHONIES NO. 1 & 2—Berlin Philharmonic, cond. Herbert von Karajan. From the celebrated deluxe set.
LPM 18 801 Stereo SLPM 138 801

CRITICS CHOICE—BEST OF 'THE BEST'

Here are a few of the many DGG albums selected as being among the top releases of the year by critics from *ESQUIRE*, *CUE*, *SATURDAY REVIEW*, *SHOW*, *NEW YORK TIMES*, *NEW YORK HERALD TRIBUNE*, and *HIGH FIDELITY MAGAZINE*:

BEETHOVEN: THE NINE SYMPHONIES—(complete) Janowitz, Roessel-Majdan, Kmentt, Berry, Vienna Singverein; Berlin Philharmonic, cond. H. von Karajan.
KL-1/8 Stereo SKL-101/8

MOZART: COSI FAN TUTTE—Seefried, Merriman, Prey, Fischer-Dieskau; Berlin Philharmonic, cond. E. Jochum.
LPM 18 861/3 Stereo SLPM 138 861/3

VERDI: IL TROVATORE—Bergonzi, Stella, Bastianini, Cossotto, Vinco; Chorus and Orchestra of La Scala, cond. T. Serafin.
LPM 18 835/7 Stereo SLPM 138 835/7

HAYDN: SYMPHONIES NO. 88 & 98—Berlin Philharmonic, cond. E. Jochum.
LPM 18 823 Stereo SLPM 138 823

BEETHOVEN: THE EARLY STRING QUARTETS—The Amadeus Quartet.
LPM 18 531/3 Stereo SLPM 138 531/3

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(Continued from page 10)

a specified noise factor and never lower—or a specified distortion rating and never better. It is our business to constantly improve our equipment, and to seek perfection in the reproduction of sound. I repeat: any improvement in the reproducing chain will produce better tone quality. Agreed, program material isn't perfect, but why compound the felony by making our electronic units less excellent than possible?

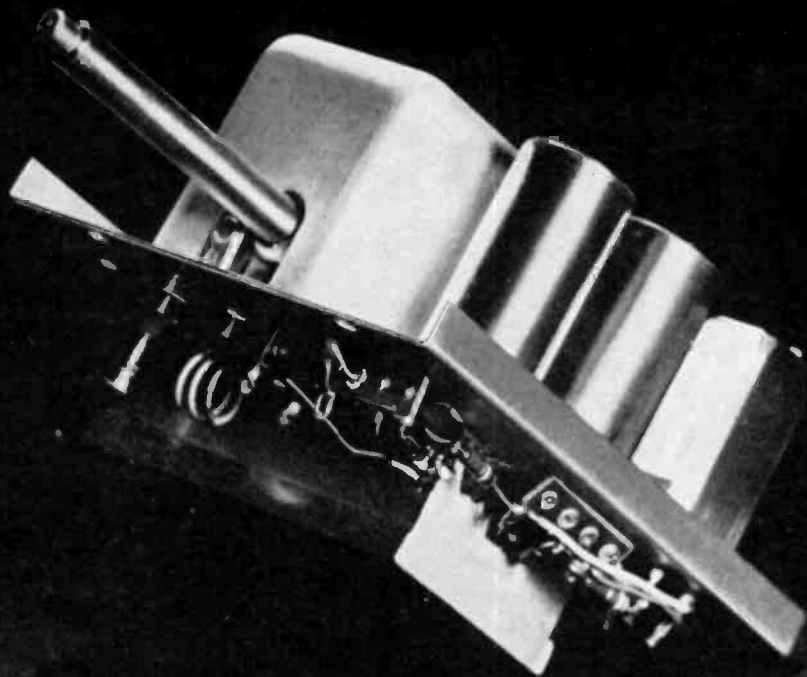
An additional point: a transient, by definition, is a discontinuity in signal level. This discontinuity is best represented by a square-wave test signal. The attack time mentioned by Mr. Hasler corresponds to the leading edge of the square wave. If an amplifier can reproduce a square wave faithfully, then it can follow the attack time of a tone burst. But this is not the prime purpose of square-wave testing. Square-wave tests are used primarily to reveal the frequency and phase linearity of an instrument. Mr. Hasler stated that the bandwidth of an amplifier can be used to predict its square-wave characteristics and vice versa. This is not necessarily so. Amplifiers with excellent frequency response but with excessive phase shift will reproduce square waves poorly. Depending upon the type of phase shift, the square wave may show excessive tilt, overshoot, ringing, or a curved top section. A good square wave will indicate good frequency response and excellent phase linearity over a spectrum approximately ten times the repetition rate of the square wave.

For Mr. Hasler's information, we have conducted numerous listening tests during the past three years. Many tests were conducted in the field under the supervision of our dealers. The results, even with program material and speakers of varying quality, were the same: the broadband, low-distortion equipment *always* sounded better.

LEON KUBY, SALES MANAGER
Harman-Kardon, Inc.
Plainview, N. Y.

THIS MONTH'S COVER

The little (22½ inches) vocalist on the cover is a Japanese *haniwa* (for "clay cylinder") figurine dating from about the first century A.D. These cylinders, topped with sculptures representing daily life of the time, were set up by the hundreds on or around burial mounds. They are thought to have been used either as jars containing offerings or, in rows, to fence in the earth over the grave. (See "Primitives of Japan: A Legacy in Clay," Seiroku Noma, *Natural History*, March 1963.) Photo by Lee Boltin.



EXTRAVAGANCE?

Is it an extravagance to silver-plate the critical Radio Frequency circuit (front-end) of an FM tuner? Scott doesn't think so . . . and neither do the editors of the leading hi-fi magazines.

For example . . . Audio reporting on the Scott 4310, said, "Without question, this tuner is one of the finest extant. It pulled in more stations, loud and clear, than any other tuner we have tested. The record now stands at 40 stations."*

What makes Scott tuners pull in more stations, loud and clear, than any other tuners? Is it the exclusive Scott Time-Switching multiplex circuitry . . . the Scott Wide-Band design? Partly.

It is also the fact that Scott, and only Scott, goes to the extra expense and trouble of silver plating Radio Frequency circuits. Silver is a far better conductor of electricity than steel or aluminum, the materials commonly used by most tuner manufacturers. With this greater conductivity the tiny signal received by the tuner

(often just a few microvolts), is not subject to signal losses or the addition of noise. As a result, Scott tuners can receive many more stations, cleanly, and without distortion.

Scott tuners are used in the most critical professional applications. It was a Scott tuner that was selected by Bell Laboratories for the famous Telstar Tests. Most broadcasting stations use Scott tuners for monitoring their own broadcasts and for relay applications. These professionals recognize the advantages of Scott's scrupulous attention to details like the silver-plated front end . . . details that make Scott the ideal choice for enjoying FM stereo in your home as well.

Scott tuners are available in all price ranges, in factory assembled or in kit form. Prices start at \$119.95.

Write today for complete details.

*Audic, September 1963.



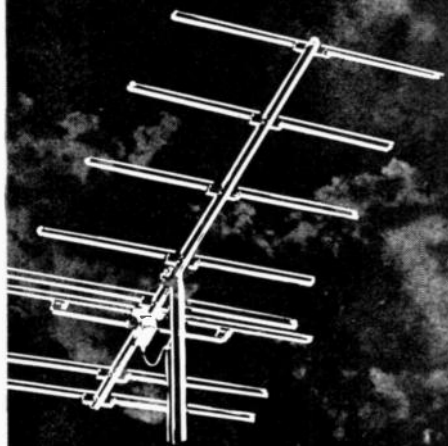
350 C FM Stereo Tuner \$224.95

Prices slightly higher west of Rockies

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The Winegard Stereotron FM antenna will improve the performance of even the most expensive FM or FM stereo tuner. It is the most powerful receiving device you can own and will bring in FM signals up out of the hiss and noise with utmost clarity. Stereotron has an exceptionally high front to back ratio which shuts out multi-path distortion. Has extremely high gain and is highly directive.

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S&Q

SOUND AND THE QUERY

**PRACTICAL POINTERS
ON THE INSTALLATION
AND MAINTENANCE OF
HOME MUSIC SYSTEMS**

BY LARRY KLEIN

Speaker Housings

Q. I'm interested in building an enclosure for a three-way speaker system. I have already purchased the component speakers. Please tell me at what frequencies to cross over from bass to mid-range, and from mid-range to treble, and whether or not to isolate the speakers from each other in the enclosure. Any advice you might offer as to the type of enclosure and the dimensions best suited to the speakers would also be appreciated.

DAVID RAUGH
Elizabeth, N.J.

A. In general, questions such as these are difficult (if not impossible) to answer specifically, because certain information about a speaker must be available before one can suggest a crossover network or a housing for it.

As far as the crossover frequencies are concerned, it is usually fairly safe to use 1,000 cps as the frequency at which to cross over from woofer to mid-range. The mid-range-to-tweeter crossover can be in the 3,000 to 4,000 cps area. But, here again, I have no way of knowing whether these are the most advantageous frequencies for your particular speakers. If a tweeter is crossed over below the manufacturer's recommended point, it will probably distort badly and may even be damaged. The same holds true for a mid-range speaker. If the woofer and the mid-range speakers are crossed over at too high a frequency, the result will be distortion and a hole in the frequency response. If the tweeter and mid-range cones are not isolated from the acoustic pressures created by the woofer, much of the crossover's effectiveness is lost. The only high-frequency units that can be mounted safely in the woofer cabinet are horns or cone-types with sealed backs.

With reference to the cabinet-design problem, I've found that it is almost impossible to produce a finished bass-reflex or horn enclosure design with pencil, paper, and the appropriate formula. Because of the large number of not too well understood variables, the best one can do, in the engineer's phrase, is "come within the ballpark." From that point on, the final adjustment is a matter of saw, chisel, running curves with an audio oscillator, and critical listening.

The small so-called infinite baffles that do not need to be tuned require a speaker of very low resonance to perform properly. A larger (6-12 cubic feet) infinite

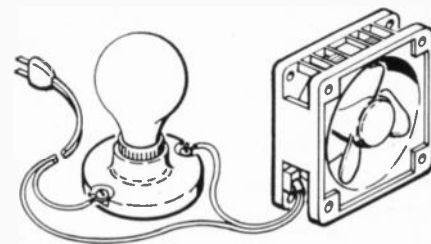
baffle is not as critical, but for best results the woofer's free-air resonance should be no higher than about 50 cps.

Fan-Speed Reduction

Q. I have a Whisper Fan that works very well, but because of a resonant condition in my equipment cabinet, it doesn't run as quietly as I would like. Is there any simple way of slowing it for quieter operation?

HARVEY BROOKS
New York, N.Y.

A. By installing the proper-size electric light bulb in a socket connected as shown, you can adjust the fan to any desired speed. The lower the wattage of the lamp, the slower the fan will



run. A 40-watt bulb should be about right, but don't be afraid to experiment, because it is impossible to damage the fan with this technique. Since the lamp will not be operating at full power, its heat radiation will be low; and in any case, it need not be mounted in the cabinet with the amplifier and other heat-producing components.

Speaker Power Rating

Q. I like the sound of a particular speaker that happens to be rated at 25 watts. My stereo amplifier, however, is a 60-watt-per-channel unit. Can I safely use 25-watt speakers?

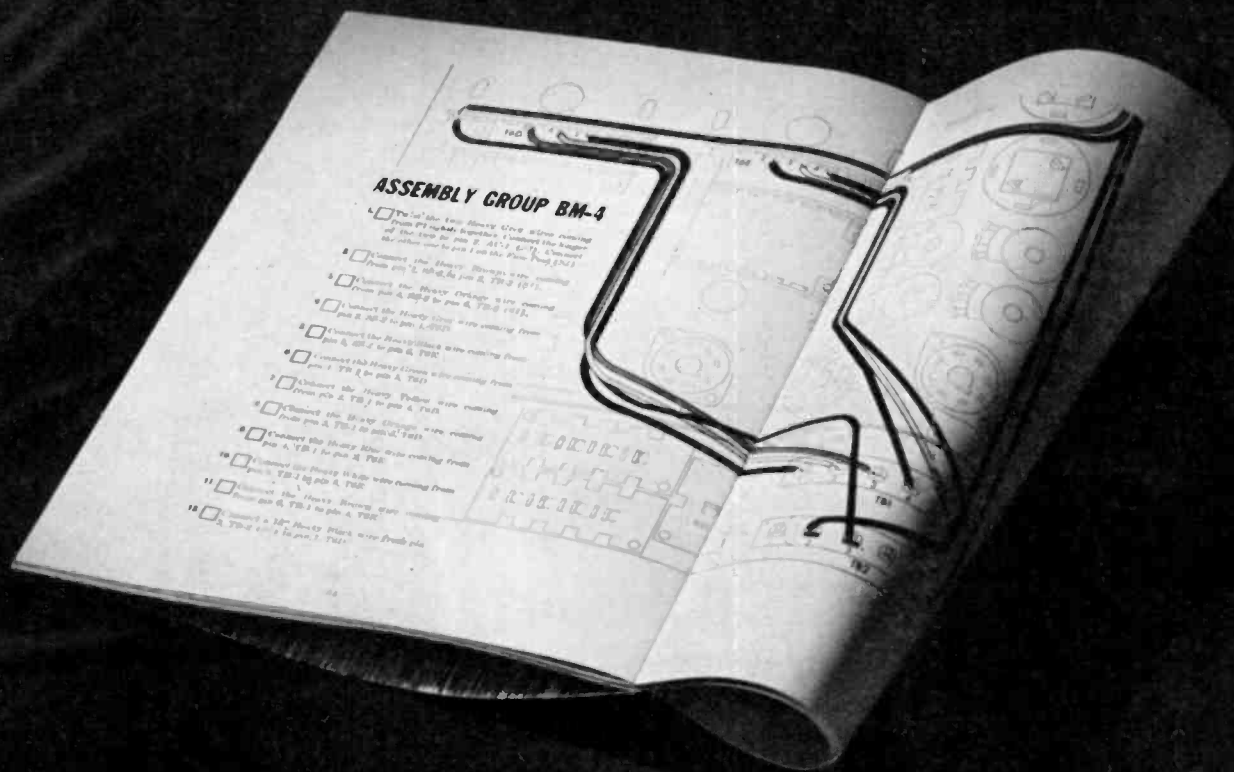
J. F. HOBBS
Anderson, Ind.

A. You are most likely to run into overload difficulties with a speaker when it has a wattage rating of under 15 watts. If the speaker's power-handling capacity is higher than this, a 60-watt amplifier can be used because the sound would be unbearably loud in the usual listening room before damage occurred. However, a speaker with a low power rating cannot be used to fill a concert hall with sound.

There is an additional problem that
(Continued on page 16)

HIFI/STEREO REVIEW

CIRCLE NO. 100 ON READER SERVICE CARD →



EXTRAVAGANCE?

Printing an instruction book in natural color is a tremendously costly process. All other kit manufacturers print their instruction books in black and white. If black and white is good enough for everybody else why must Scott spend so much extra for color?

As Popular Electronics puts it, "the exclusive Scott full color instruction book eliminates just about the last possible chance of wiring errors . . ." Every part is shown in natural color and in its proper position. All you have to do is look at the picture and you instantly know where each part goes. Only a few parts are shown in each colored pictorial to avoid confusion. A separate Part-Chart is provided for each pictorial. The components are mounted on the Part-Charts in the exact order used. Sounds simple? It is simple. So simple that thousands of people who never built kits before,



LK-72 80-watt Stereo Amplifier Kit \$164.95

Prices slightly higher west of Rockies

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are proudly listening to superb Scott stereo components they built themselves.

Thanks to the instruction books and the unique Scott Ez-A-Line method you can build tuner kits as easily as amplifier kits and you don't need any laboratory test equipment.

Extravagant? No, sir—Essential as far as Scott is concerned. The proof of our reasoning is this typical review of Scott kits: "The Scott instruction books should be a model for the industry . . . the finest in the kit field." American Record Guide.

Only the finest is good enough for Scott, and for you, too. Write for information on the complete line of Scott-Kit tuners and amplifiers. Use reader service number below.



SCOTT®

H. H. SCOTT, INC., 111 POWDERMILL RD., MAYNARD, MASS.

If The Uher 8000 By Martel Did Not Feature:



AKUSTOMAT: You simply speak and the machine records . . . you stop speaking — machine stops. Audio Magazine reported . . . we know of no other machine which has this feature.

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AUTOMATIC: End of reel shut-off disengages pressure roller.

MULTI-PLAY: Allows transfer of recording to a parallel track while simultaneously superimposing a new recording to the original track by the turn of a knob.

CONSOLE SOUND: Featuring two built in speakers for perfect separation.

4 TRACK STEREO — 4 TRACK MONO: With built in mixer control for both channels.

Audio Magazine Report: ". . . Practically any use that can be imagined is possible with the Uher 8000."

Then It Would Be Just Like Any Other Tape Recorder.

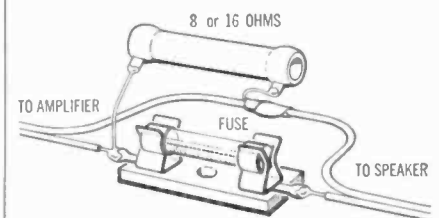
By the way . . . it took Audio Magazine 1457 words to describe all the features on the Uher 8000 — for complete review write

MARTEL ELECTRONICS
 Hollywood: 645 N. Martel Avenue, Phone (213) 938-2803
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CIRCLE NO. 36 ON READER SERVICE CARD

should be mentioned. If an input plug to your preamplifier accidentally loosens in its jack, the full rated power of the amplifier at 60 cps may be applied to your speaker—with catastrophic results. Therefore, if the speaker's power rating is substantially below that of the amplifier, it is wise to put a fuse in the speaker line.

A reader (Carlos M. Laguette of Mexico City) has suggested a worthwhile variation on the standard fusing technique. Instead of using a fuse shunted by a resistor in series with the speaker, he recommends that a heavy-duty (25 watts or higher) wire-wound resistor equal to the speaker's impedance be wired across the speaker line. The fuse is installed between the resistor and the speaker as shown. The connections to the amplifier



are now made at the next lowest tap; a 16-ohm speaker shunted by an 16-ohm resistor is connected to the 8-ohm tap, and an 8-ohm speaker shunted by an 8-ohm resistor is connected to the 4-ohm tap. (Four-ohm speakers cannot use this system; if they require fusing, the procedure outlined on page 38 of the August 1963 issue should be followed.)

A type 3AG standard (not slow-blow) fuse should be used. A 5-watt, 16-ohm speaker requires a 1/2-ampere fuse, a 10-watt speaker requires a 3/4-ampere fuse, and a 20-watt speaker requires a 1-ampere fuse. Eight-ohm speakers with equivalent power ratings take fuses of the next highest value. If a fuse blows on normal program material, try using the next highest value.

Mr. Laguette's system has several advantages: (1) the amount of power reaching the speaker is effectively halved, thereby reducing the chances of overloading the speaker on peaks—and at the cost of only a hardly noticeable decrease in volume; (2) the resistor tends to smooth out variations in speaker impedance, and thus damps resonant peaks; and (3) if the fuse blows, the amplifier's output will be delivered entirely to the resistor and not partially to the speaker—making it impossible not to notice when the fuse has burned out.

Because the number of queries we receive each month is greater than we can reply to individually, only those questions selected for this column can be answered. Sorry!



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The Unmatched Performance of

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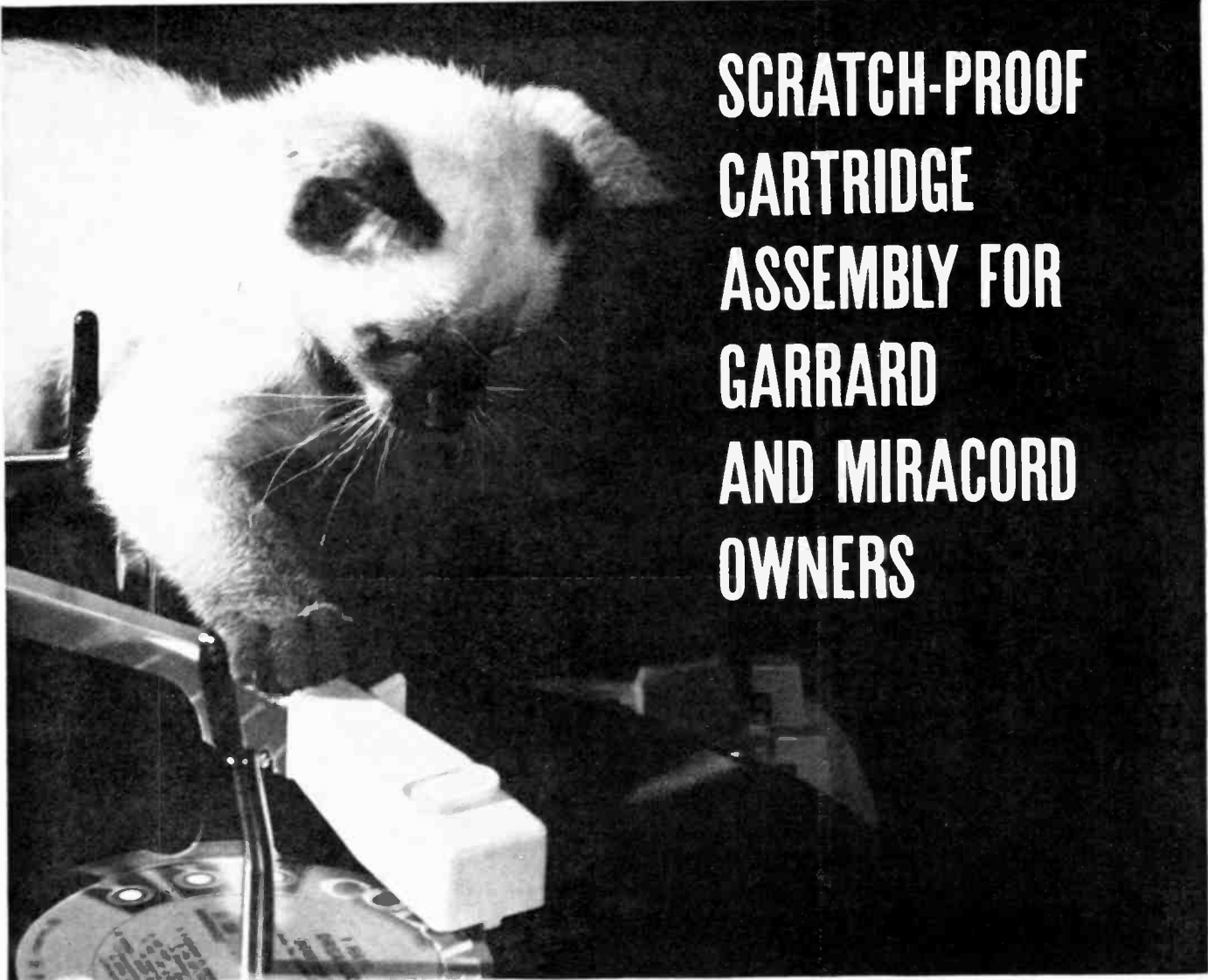
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2425 E. 55th St. Dept. 6A Indianapolis 20, Indiana

new from **SHURE**

originators of scratch-proof high fidelity tone arms



SCRATCH-PROOF CARTRIDGE ASSEMBLY FOR GARRARD AND MIRACORD OWNERS

Attention music lovers and felinophiles; interesting to note that both cat and cartridge have retractile styli for gentleness and protection from scratching

GREATER RECORD AND NEEDLE PROTECTION . . . FINER RECORD REPRODUCTION

Now, owners of Garrard Laboratory® Type "A" and AT-6 and Miracord Model 10 and Model 10H Automatic Turntables can assure themselves unprecedented and unparalleled record and needle protection, and highest sound quality simply by plugging in the Shure Stereo Dynetic GARD-A-MATIC "floating" cartridge assembly. Nothing else to buy . . . no wiring, no soldering, just plug in.

Ingenious GARD-A-MATIC cartridge inside a special tone-arm shell ends scratching due to dropping the tone arm or accidentally dragging it across the grooves . . . records stay new, sound new. Needles last longer—can't be damaged by pressing arm on record. Does away with tone arm "bounce" from floor vibrations, etc. Even plays warped records. And, the performance characteristics are those of the famed Shure Stereo Dynetic cartridges.

SPECIFICATIONS

Frequency Responses:	From 20 to 20,000 cps
Output Voltage:	6 millivolts per channel
Channel Separation:	more than 22.5 db at 1000 cps
Recommended Load Impedance:	47,000 ohms
Compliance:	20.0 x 10 ⁻⁶ cm per dyne
Tracking:	1.5 to 3.0 grams
Inductance:	600 millihenries
D. C. Resistance:	750 ohms
Stylus:	.0007" diamond
Stylus Replacement:	N99

MODEL M99/A. Fits Garrard Laboratory® model "A". Includes tone arm head, factory mounted cartridge, .0007" diamond. **MODEL M99/AT6.** Fits Garrard AT-6. Includes tone arm head, factory mounted cartridge, .0007" diamond. **Model M99/M10.** Fits Miracord Models 10 or 10H. Includes tone arm head, factory mounted cartridge, .0007" diamond. **MODEL N99.** Replacement stylus assembly, .0007" diamond.

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Patented and Patents Pending

CARTRIDGE ASSEMBLY

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Manufactured under one or more of the following U.S. patents: 3,055,988; 3,077,521; 3,077,522; D193,006; D193,934; other patents pending.

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Console II \$850
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This is the all-new, all-transistor Schober

Recital Model...the most versatile electronic organ available today. Its 32 voices (plus amazing "Library of Stops"), 6 couplers and 5 pitch registers delight professional musicians...make learning easy for beginners. Comparable to ready-built organs selling from \$5000 to \$6000.

The pride and satisfaction of building one of these most pipe-like of electronic organs can now be yours...starting for as low as \$550. The Schober Spinnet, only 39¼ inches wide, fits into the smallest living room. The new, all-transistor Schober Console II is the aristocrat of "home-size" organs...with two full 61-note manuals, 17 pedals, 22 stops and coupler, 3 pitch registers and authentic theatre voicing.

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You can buy the organ section by section...so you needn't spend the whole amount at once.

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Thousands of men and women—teenagers, too—have already assembled Schober Organs. We're proud to say that many who could afford to buy any organ have chosen Schober because they preferred it musically.

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CIRCLE NO. 46 ON READER SERVICE CARD
20

JUST LOOKING

...at the best in new hi-fi components



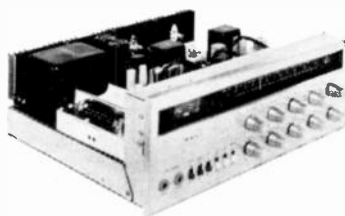
● **Ampex** announces the UST-4, a moderate-price stereo tape recorder to be marketed under the United Stereo Tapes label. The UST-4 is a complete 4-track recorder with built-in amplifiers and twin 5 x 7-inch speakers for mono or stereo playback, and two microphone inputs for live stereo recording. It can be used vertically or horizontally, either as a self-contained portable or built in as part of a high-fidelity system. Frequency response at 7½ ips is 50 to 15,000 ±4 db; at 3¾ ips, the response extends to 7,500 cps. Flutter and wow at 7½ ips



are 0.2 per cent, and signal-to-noise ratio is 42 db. The power-amplifier output is 6 watts peak per channel at 3.2 ohms impedance. The preamplifier output for feeding an external hi-fi system is 1 volt nominal at high impedance. A single record-level meter can be set to monitor either channel. Price: \$299.

circle 179 on reader service card

● **Bell** has announced a transistorized stereo 80-watt tuner-amplifier designated the Imperial 1000. The unit has a power bandwidth of 9 to 65,000 cps at an IM distortion of less than 0.7 per cent, and harmonic distortion of less than 0.25 per cent. The tuner section has a 1.6-microvolt sensitivity (IIF), distortion of



under 0.5 per cent, and a 2-db capture ratio. Stereo separation is a minimum of 30 db from 20 to 15,000 cps. The tuner, which is a plug-in assembly, can be removed at any time without affecting amplifier operation. If desired, the tuner section can be added at a later date. Price: \$529.95.

circle 180 on reader service card

● **Elpa** has available a Changer Dust Bug, which is adjustable to any record



changer. The device destaticizes and cleans records without interfering with either the changer or tone-arm operation. Price: \$5.

circle 181 on reader service card

● **Harman-Kardon** introduces the 1000-series of solid-state components with the A-1000T, an integrated stereo amplifier, and the F-1000T stereo FM tuner. The amplifier has 28 transistors and 6 diodes and a frequency response of 10 to 100,000 cps ±0.5 db at normal listening levels. Distortion is less than 0.5 per cent at 35 watts (continuous power) per channel. Damping factor is 30 or above for output impedances of 4, 8, and 16 ohms. Output and driver transformers have been eliminated, and computer-grade silicon output transistors are employed in a damage-proof circuit that can withstand a direct short circuit. The controls include a tone-control-defeat



switch and rumble- and scratch-filter switches in addition to the standard controls. Push-buttons are used as input selectors. Seldom-used controls, and a headphone jack, are concealed behind a hinged panel on the front. Price: \$369.95.

The matching transistorized stereo FM tuner in the 1000 series has a 2-microvolt sensitivity (IIF), a signal-to-noise ratio of 60 db, and less than 0.1 per cent distortion at 100 per cent modulation. The F-1000T incorporates automatic switching to stereo when receiving a stereo broadcast, a time-switching multiplex section, interchannel muting, and a 1-megacycle detector bandwidth. Other features are a stereo indicator light and

(Continued on page 22)

**“Did you hear Schubert’s 9th
this morning?
I recorded it complete...
in stereo!”**

**“I wasn’t home –
had to go to school
again to record a
long lecture on
anthropogenesis.”**



Whether your family’s requirements in a tape recorder reflect the demands of hobby or profession... classroom or business, you will find every one of your special needs fulfilled by either, or both, of the two solid-state Norelco recorders shown above.

The Continental ‘401’ (left), engineered for standby studio use as well as for professional-quality home music systems, is completely self-contained for both stereo and mono recording and playback. Includes dual recording and playback preamps, dual power amplifiers, two stereo-matched loudspeakers and a stereo, dynamic microphone. Its four speeds include $7\frac{1}{2}$, $3\frac{3}{4}$, $1\frac{1}{8}$, $15/16$ ips. Response: 60-16000 cps at $7\frac{1}{2}$ ips • Wow and flutter: less than 0.14% at $7\frac{1}{2}$ ips • Signal-to-noise ratio: better than -48 db.

The Continental ‘101’ (right) is a new, professional-quality 7-pound portable that works on ordinary flashlight batteries, providing excellent recording (and playback) of anything, anytime, anywhere. Gives you up to two hours on a 4” reel of tape. Sound is clear as a bell and loud as you want it. Features dynamic microphone and constant-speed motor with capstan drive. Ruggedly built, handsomely styled, surprisingly low-priced. The perfect portable for the entire family—for work or play—at home or away!

Norelco recorders are sold and demonstrated at camera shops, hi-fi dealers and wherever good sound is sold. Write for booklet 20 to: **NORTH AMERICAN PHILIPS COMPANY, INC.**, High Fidelity Products Division, 100 East 42nd Street, New York, N. Y. 10017.

CIRCLE NO. 38 ON READER SERVICE CARD

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agree . . .



for the best seat in the house . . .
you need a **FINCO**[®] AWARD WINNING
FM ANTENNA

Guarantee yourself the best seat in the house for tonight's FM concert . . . install a fidelity-phased FINCO FM antenna.

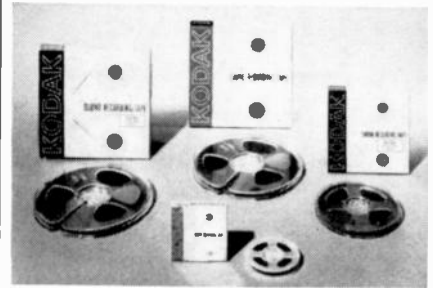
THE FINNEY COMPANY
Bedford, Ohio
Dept. H.D.

CIRCLE NO. 24 ON READER SERVICE CARD

a hinged panel to conceal seldom-used controls. Price: \$299.95.

circle 182 on reader service card

● **Kodak's** new recording tapes are coated with an oxide that has increased sensitivity and output. They also employ a new Durol triacetate that is approximately 40 per cent stronger than the base



previously used. The greater sensitivity provides the user with increased high-frequency response, and the higher output achieves an improvement in signal-to-noise ratio. The tape's Durol triacetate base virtually eliminates stretching—it breaks clean rather than stretching and snarling. The new oxide will also be offered on 1-mil and 1/2-mil polyester.

circle 183 on reader service card

● **Lafayette** augments its equipment line with the LT-81CWX stereo FM tuner. The unit features an automatic stereo indicator and employs an Armstrong grounded-grid, low-noise front end and wide-band ratio detector with dual tuned limiters. Front-panel controls include a four-position selector switch for power on-off, FM, stereo FM, noise filter; AFC on-off slide switch, and flywheel



tuning. Sensitivity is 2 microvolts for 20 db quieting, and stereo separation is 30 db at 400 cps with less than 1 per cent distortion. Dimensions (in cabinet) are 13 1/2 x 5 3/4 x 9 1/2 inches. Price: \$83.95.

circle 184 on reader service card

● **H. H. Scott** announces a new console line designed to furnish a package system with component quality. Features of the electronic system used in the consoles include a silver-plated front end for high FM sensitivity, and 72- to 80-watt transistorized power-output stages. The record player is mounted on a two-stage mechanical filter to eliminate acoustic feedback. For operating convenience, the controls are separated into two groups, "operating" and "adjustment." Three furniture styles are available. (Continued on page 24)



THIS IS NOT A REFINEMENT THIS IS AN INVENTION...

Can a new magnetic cartridge be *that* different? The ADC Point Four Stereo Cartridge is. It embodies a concept sufficiently unique to establish a new type of playback head. We call the Point Four an "Induced Magnet Transducer". But that is not the only reason for putting it in a class by itself. We also believe it to be the most advanced cartridge available anywhere today.

Although there are many "magnetic" cartridges, the term embraces a wide variety of variable reluctance, moving coil, moving magnet, and moving iron designs. Each is a distinct type, with advantages and disadvantages unto itself. Much hard thinking has gone into ways of wedding the virtues while skirting the drawbacks. The result, in this case, was something more than the best balance of compromises and reconciliations. The "Induced Magnet Transducer," in achieving new and impressive goals, goes about the business of reaching them in its own way.

The cold specifications are here. Proof of what they mean is up to your own ears. Some of the points, however, to which we'd like to call special attention are the significantly reduced mass of the moving system, the optimum tracking angle of 15°, the extremely low distortion, and the high compliance.

As to the mass, let's remember that the first duty of the stylus is to track the shape of the recorded groove as accurately as possible. To the extent that it falls short here, we cannot have complete fidelity. Unfortunately, to finish its job, the stylus must also push a load that will ultimately produce an electrical signal. Whatever the load — it may be a magnet, a set of coils, or a bit of iron or steel — it has mass. And this mass must inhibit the freedom of the stylus to track the groove. Mass of the moving system in the Point Four is reduced to half or less that of systems previously regarded as low-mass designs.

How was this done? Consider the usual load on the stylus. Sometimes the cantilever or stylus arm is itself the heavy, steel armature that must be moved. Sometimes the arm is a desirably light, aluminum tube — which must nevertheless,

The Induced Magnet Transducer

in turn, move a heavy magnet or set of coils. The Point Four stylus is mounted at one end of the desired aluminum tube — but the other end extends into a light armature of soft, magnetically permeable, iron tubing.

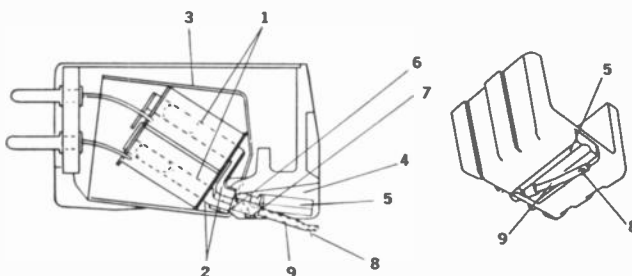
A heavy magnet is on the premises, but it has no physical connection with the moving system. It is completely outside the cartridge body. In fact, it is mounted on the easily replaceable stylus assembly, and positioned to induce high density of magnetic flux in the armature. The efficiency of this method actually assists in permitting armature weight to be reduced.

The end of the pivoted armature away from the stylus is near the pole pieces of the pickup coils, with the coils being well back into the cartridge. The remote position of the magnet with respect to the main structure, including the coils, ensures freedom from saturation and hysteresis distortion — serious effects that are beyond control by conventional shielding.

The physical configuration of the stylus assembly yields another important advantage. With the pivot point brought close to the record surface, obtaining the now established tracking angle of 15° is no problem. This requirement may seem simpler than it is, at first. But the pivot point of the stylus assembly is often high above the surface, because the assembly must move something well up into the "guts" of the cartridge. It is well understood that the most important factor in the tracking of a tone arm is the location of its pivot point. The analogy holds true for the pivot of a stylus arm, as well.

Its angle of vertical motion is not the only feature of the stylus. We use a nude diamond, which we grind and polish to a radius of .0004 inch. We have found this radius optimum for all modern recordings, both mono and stereo.

On the practical side, the stylus assembly is exceptionally easy and convenient to replace. The stylus itself is retractable to protect itself and your valuable records. As to the quality of the sound, we have already said that it is up to you and your ears. We can only hope that you try it with equipment that will do it justice.



- 1. Coils
- 2. Pole pieces
- 3. Mu-metal shield
- 4. Stylus assembly
- 5. Magnet
- 6. Armature
- 7. Pivot block
- 8. Stylus
- 9. Aluminum cantilever tube

ADC Point Four Specifications

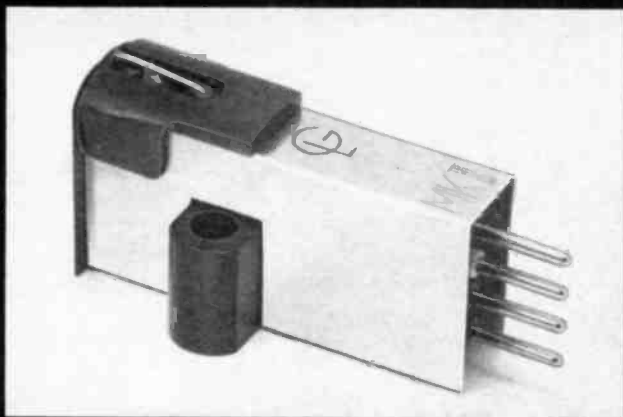
Type	Induced Magnet
Sensitivity	5 mv at 5.5 cm/sec recorded velocity
Channel Separation	30 db, 50 to 8,000 cps
Frequency Response	10 to 20,000 cps ±2 db
Stylus Tip Radius0004 inch
Vertical Tracking Angle	15°
Tracking Force Range	¾ to 1½ grams
IM Distortion	Less than 1%, 400 and 4,000 cps at 14.3 cm/sec velocity
Minimum Compliance Vertical and Horizontal	30 x 10 ⁻⁴ cm/dyne
Price	\$50.00



NEW!

GRADO TRACER BEAM

STEREO CARTRIDGES



THE GRADO TRACER BEAM STEREO CARTRIDGES MEET ALL OF THESE REQUIREMENTS!

Eliminate inner groove distortion.

Eliminate completely "Shattering," and buzzing during playback.

Play both stereo and monaural records.

Be completely non-critical to installation problems and still perform superbly.

Track in a good tone arm at 1 gram or less (not just make sound but trace with low distortion!)

Work in all record changers and automatic turntables at up to 6 grams.

Have IM distortion of no more than 2% at the highest recorded levels and maintain 1% or less IM distortion for normal recorded levels.

Have a high frequency response to at least 24,000 CPS or better.

Have a FLAT frequency response down to 10 CPS.

STYLUS ASSEMBLY REPLACEABLE BY CONSUMER!

TRACER BEAM MK I STEREO CARTRIDGE \$75.00
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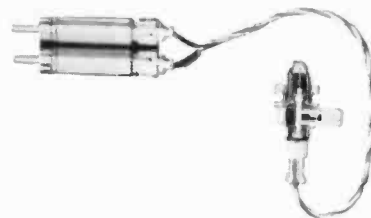
For further information please write:

GRADO LABORATORIES, INC. 4614 Seventh Ave. B'klyn 20, N.Y.

able in both the Copley Series and in the lower-price Exeter Series: Contemporary (oiled walnut), Italian Provincial (deep-toned distressed walnut), and French Provincial mellow distressed fruitwood). All cabinets provide dust-free storage space for 150 records, or for the installation of an optional Ampex F-44 tape recorder. Exeter dimensions are 60 x 19 x 20 inches; Copley dimensions are 64 x 20 1/4 x 31 inches. Prices: from \$995 to \$1895.

circle 185 on reader service card

● **Sonotone's** Mark IV is the latest version of the Velocitone ceramic phono cartridge. The cartridge has a stereo compliance of 15×10^{-8} cm/dyne in all directions, and its channel separation is



30 db. Recommended tracking force is 1.5 to 3 grams in professional arms and 3 to 4 grams in changers. The Mark IV's frequency response is 20 to 17,000 cps ± 2 db. When used with the supplied plug-in equalizers, the cartridge matches the standard magnetic-phono input on most preamplifiers and has a 7-millivolt output. The Mark IV may also be used without equalizers and supplies 0.2 volt to high-level inputs. The cartridge is available either with a diamond-sapphire damage-proof turnover stylus (\$20.25) or with a double-diamond (0.7-mil/3-mil) combination (\$24.25).

circle 186 on reader service card

● **Tandberg** introduces a transistorized, high-fidelity portable radio. Housed in a teakwood cabinet and using a 9 x 5-inch loudspeaker, the unit covers the AM,



FM, short-wave, and marine bands. Included are separate treble and bass controls, tape-recorder and phono jacks, and built-in AM, short-wave, and FM antennas. The nine-transistor unit weighs 5 1/2 pounds and measures 8 1/2 x 4 1/2 x 13 inches. Price: \$149.50.

circle 187 on reader service card

HIFI/STEREO REVIEW



The lyric majesty of Sony sound



A magnificent new stereophonic high fidelity tape system; precise, versatile, complete in itself, the Sony Sterecorder 500, with the revolutionary lid-integrating speakers, may be purchased for less than \$399.50 complete with two F-87 cardioid dynamic microphones.

Outstanding operational features distinguish the amazing new Sony Sterecorder 500: ■ Acoustical cone suspension speakers ■ Speakers combine to form carrying case lid ■ 4-track stereo and monophonic recording and playback ■ Vertical or horizontal operation ■ Microphone and line mixing ■ Sound on sound ■ Two V.U. meters ■ Hysteresis-Synchronous drive motor ■ Dynamically balanced capstan flywheel ■ Pause control ■ Contour switch ■ Automatic shut-off ■ Automatic tape lifters ■ FM stereo inputs ■ Multiplex Ready!

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Sony tape recorders, the most complete line of quality recording equipment in the world, start at less than \$79.50. For literature or name of nearest dealer, write Superscope, Inc., Dept. 8, Sun Valley, Calif. In New York, visit the Sony Salon, 585 Fifth Avenue.



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Your Ampex
Master Tape Center

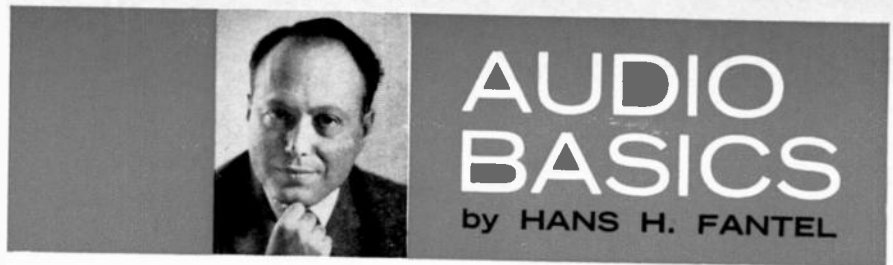
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26



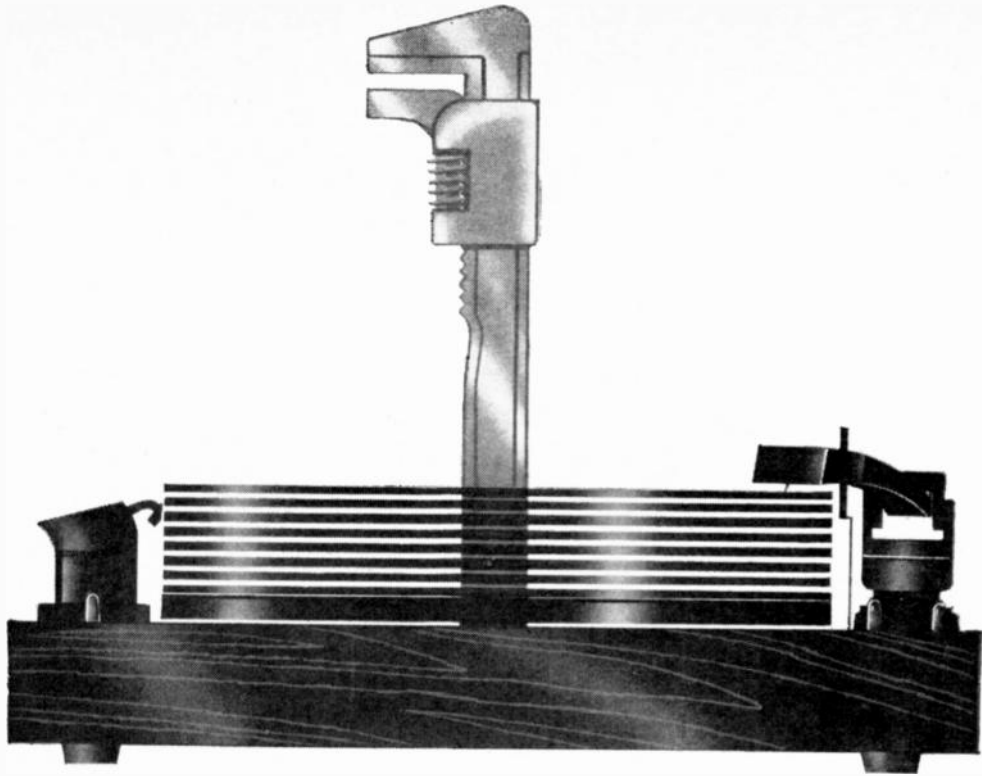
DEFINITIONS—I

IT HAS occurred to me that, after trekking through the thick and thin of audio for nearly three years, loyal readers of this column may resent to some degree—and justifiably—the suggestion that they are still “only beginners.” In deference to these grizzled veterans, the name of the column has therefore been changed from “Beginners Only” to “Audio Basics.” The content of the column, however, will continue to deal with the fundamental concepts of sound reproduction and will re-examine these concepts periodically.

It is of course self-evident that any discussion is best begun by first establishing a vocabulary for the subject at hand and supplying clear definitions. The next several columns, then, will be given over to a review of some common audio terms, arranged in alphabetical order, as the best way of accomplishing the purpose implied by this column's new name.

- **Acoustic feedback** occurs when sound vibrations from the loud-speaker travel back to the record player. The phono stylus then picks up the vibrations from the speaker along with the modulations in the record groove and feeds both signals to the amplifier and speaker. The result is—at best—a slight tonal blur or a rumbling noise. At worst, the re-amplified vibrations pile up, overload the amplifier, and produce a loud rumbling, humming sound that, if sustained, could damage the speakers.
- **AFC (Automatic Frequency Control)** is used in many FM tuners to lock in a station to keep it from drifting out of tune. Since AFC tends to “pull” the tuning to the stronger of two adjacent stations, an AFC-defeat (on-off) control is necessary to permit tuning in weak stations. Some tuners dispense with AFC altogether, relying on a circuit design that is inherently free of drift problems to hold a station steady on the dial. The absence of AFC in a quality FM tuner is therefore not necessarily a drawback.
- **AGC (Automatic Gain Control)** is a circuit employed in most FM tuners to adjust the amount of amplification to the strength of the incoming signal. This automatically keeps the tuner from being overloaded by excessively strong signals from nearby stations. However, normal AGC operation somewhat reduces the maximum sensitivity. For this reason, some tuners have a switch that reduces the AGC action when a weak station is to be tuned in.
- **AM (Amplitude Modulation)** is a method of broadcasting in which sound waves are transmitted as variations in the *intensity* of a radio-frequency signal. This method of broadcasting is subject to atmospheric and man-made interference, and in practice is too limited in frequency and dynamic (loudness) range to satisfy high-fidelity requirements. A newer system of radio transmission, FM (or Frequency Modulation) does not have these problems and is therefore preferred for high-fidelity applications.

(To be continued next month)

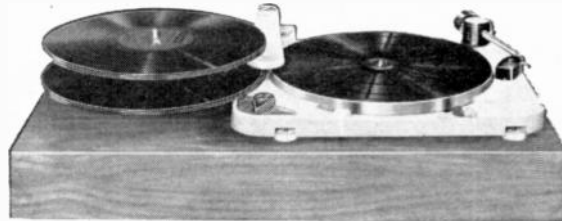


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28



ANTENNA BOOSTERS

By HERBERT FRIEDMAN

ALTHOUGH my article on FM antennas in the October 1963 issue touched only briefly on the subject of antenna boosters, judging from the letters I have received, the matter is of considerable interest, and worth further elaboration. The usual question I have been asked goes something like this: "I live in a fringe area, and even though I have a good antenna many stations are so noisy that it is impossible to listen to them. Would a booster amplifier help?"

For several reasons, it is difficult to predict how helpful a booster will be in any specific location. The problem centers around noise (we used to call it static). When a tuner has an IHF rating of 2 microvolts sensitivity, this means, essentially, that an FM signal with a strength of at least 2 microvolts is required at the antenna terminals of the tuner to produce an audio signal with a 30-db quieting, or signal-to-noise, ratio. FM signals of less than 2 microvolts, when fed to a 2-microvolt tuner, will produce an audio signal that has a signal-to-noise ratio of less than 30 db.

If a high-gain antenna cannot supply an FM signal that is strong enough to achieve at least 30-db quieting in a good tuner, no amount of boosting will help, since the best that any booster can do is to amplify both the signal and the incoming noise equally. The signal-to-noise ratio therefore remains the same, and nothing beneficial will have been accomplished. The above situation assumes that the noise levels of the tuner and the booster are very low; obviously, if the booster has significant internal noise, then the signal reaching the antenna via a booster will have a poorer signal-to-noise ratio than if the signal were fed directly to the tuner from the antenna.


There are circumstances, however,

under which a booster can be helpful—if, for example, the tuner were receiving a fairly strong signal but the tuner's internal noise degraded the signal-to-noise ratio, or if local noise induced in the antenna's transmission line resulted in noisy performance. In both of these circumstances, a low-noise booster (installed at the antenna in the case of transmission-line noise) would be a decided asset, since it could amplify the signal without simultaneously boosting the noise. In simplest terms, a booster is more likely to provide improved reception when used with an older tuner than with a modern high-quality tuner. The noise figures of today's best tuners are already so low that the use of a booster with them will almost never help.

ANOTHER problem one may encounter is booster distortion. Some of the earlier transistorized boosters were easily overloaded. A strong signal at any portion of the band would overload the booster and interfere with the reception of weaker stations elsewhere on the band. The latest transistor boosters, however, are capable of handling considerably more signal than the early models—but you won't know if one will work satisfactorily at your location until you try it.

Tube boosters have somewhat different problems. While many of the early models could handle a strong signal without difficulty, they had a tendency to go into self-oscillation, which resulted in overload. This problem has been solved in most late-model tube boosters; but again, you won't know until you try one.

If you feel a booster might help your reception, buy one only with a written money-back guarantee from the dealer. Try several models, if necessary—one may not help reception, but another might.



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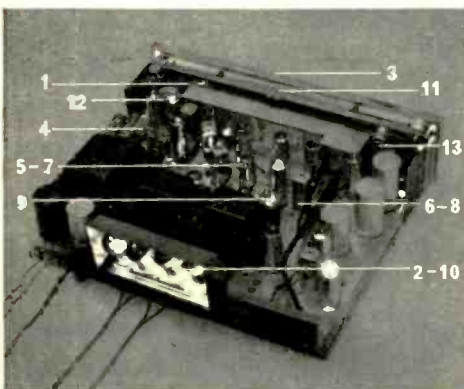


the superlative new S-8000 III FM stereo receiver priced at \$319.50



Years ago, Sherwood high-fidelity tuners and amplifiers were evaluated by highly-respected, totally-impartial research companies as either the finest designed or the best valued on the market. ■ Although we were pleased by such endorsements of pure quality in design and performance, the really significant fact was that *other leading components carried higher price tags.* ■ *Subsequent Sherwood components have received ratings indicating features and performance equal or superior to brands carrying price tags at least 20% higher.* ■ A current example of Sherwood design superiority is our new S-8000 III receiver. Sensitivity is rated at 1.8 microvolts. Capture effect is an outstanding 2.4 db. ■ No other FM receiver can claim the 80-watt music-power rating of the S-8000 III, and only one other (priced \$50 higher) offers the professional D'Arsonval zero-center tuning meter that's standard with Sherwood. ■ We still believe that our old-fashioned policy of superior engineering and realistic prices is best for both you and Sherwood.

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STEREO RECEIVERS ■ TUNERS ■ AMPLIFIERS ■ STEREO INDICATOR LIGHTS ■ SPEAKER SYSTEMS ■ CONTEMPORARY CABINETRY



● **TUNER TESTING:** Although the Institute of High Fidelity Manufacturers (now the IHF) issued its *IHF-M-T-100 Standard Methods of Measurement for Tuners* over five years ago, the standard has still received only partial acceptance by the industry. This twenty-two-page document gives specific techniques for measuring sensitivity, signal-to-noise ratio, harmonic distortion, drift, and frequency response, among others. All of these items are required by the Institute to be used in *minimum* published specifications for tuners made by manufacturers subscribing to the standards. Certain additional items, including capture ratio, selectivity, hum, and AM suppression, must be included in a complete specification.

A few tuner manufacturers do, in fact, publish complete performance specifications covering the areas defined by *IHF-M-T-100*. However, even these do not usually identify their ratings as conforming to IHF standards (with the exception of the usable-sensitivity rating). This introduces an area of ambiguity when an independent reviewer, such as myself, attempts to verify advertised tuner-performance specifications. My tests cover the five major items listed above, plus capture ratio and hum measurements. Some tuner manufacturers ignore the IHF standards and either adhere to the outmoded and inadequate IRE Standards of 1947 or make up their own. This is particularly evident in the case of low-price tuners, for which a specification such as "2 microvolts for 20 db quieting" (measured under unknown conditions) looks much better in print than a possible IHF equivalent of 10 microvolts.

Probably the most widely advertised characteristic of a tuner is its IHF usable sensitivity. Essentially, this is the smallest input signal (100 per cent modulated at 400 cps) that results in a combined distortion, noise, and hum level of 3 per cent (-80 db) at the tuner's audio output. This is quite different (and far more realistic in terms of listening quality) from the older IRE standard, which defined sensitivity in terms of the background noise with an unmodulated signal being

20 db or 30 db below the audio output with a 30 per cent modulated signal. This older standard permitted a manufacturer to gain increased apparent sensitivity by narrowing the IF bandwidth—which looks good in printed specifications, but can result in severe distortion on heavily modulated signals. Insufficient IF bandwidth is also a serious deterrent to successful stereo reception.

The harmonic distortion of an FM tuner is normally measured as part of the usable-sensitivity test. These tests were conceived before the adoption of the present FM stereo system, and apply to monophonic operation. It has been suggested that both the distortion and usable sensitivity of stereo tuners be measured under stereo-reception conditions. This seems, on the face of it, to be a reasonable procedure, but there are some pitfalls. The IHF usable-sensitivity measurement lumps all unwanted residual products—such as noise, hum, and distortion—into a single quantity. With most mono tuners, distortion is the dominant component. Stereo tuners, on the other hand, often have large amounts of 19-kc and 38-kc signal in their outputs. These can be much larger than the usual distortion products or background noise, and could make a tuner seem to be much inferior to others of equal sensitivity that have less ultrasonic output.

Of course, appreciable ultrasonic output from a tuner is undesirable, since it may cause "birdies" when tape recordings are being made, or may even overdrive and damage the tweeter of a speaker system. However, my view is that this failing is *not* related to IHF usable sensitivity, and that it should be considered separately.

ULTRASONIC signals are not the only problem in stereo FM measurements, for even if the supersonic signals were to be filtered out, the resulting sensitivity figure would still be quite poor compared to a monophonic measurement on the same tuner. The increase in FM signal level required to give the same signal-to-noise ratio on stereo as on mono is normally about

REVIEWED THIS MONTH

Ampex F-44 Tape Recorder



Dynakit SCA-35 Amplifier

10 times (20 db). However, since the loss of sensitivity on stereo is fairly constant from tuner to tuner, a tuner's relative performance on stereo can be predicted with accuracy by measuring the unit in the mono mode.

Although the IHF tuner-measurement standards are outdated in some respects, I feel they still represent the best all-around approach to the problem, and I intend to adhere to them in the spirit, if not always to the letter, in my tuner measurements. It would be good if more manufacturers would do the same.

AMPEX F-44 TAPE RECORDER



● THE LATEST Ampex tape recorder, the F-44, is designed to supersede the older 1200 series. Like the 1200 machines, the F-44 units are three-head, four-track stereo recorders with separate recording and playback amplifiers. Head gaps of only 90 micro-inches contribute to a record-playback frequency response rated at ± 2 db from 50 to 15,000 cps at $7\frac{1}{2}$ ips and 50 to 8,000 cps at $3\frac{3}{4}$ ips.

The deck of the F-44 is a rigid casting—an important feature for a high-quality tape recorder, in which maintenance of precise mechanical alignment is vital to performance. A single motor drives the capstan through a belt, which is shifted to the appropriate pulley for the selected tape speed by a push-pull knob. The supply and take-up reels are also belt-driven from the same motor.

A welcome change in the F-44 series is the inclusion of two recording-level meters in place of the single meter used in the previous series. As before, there are three sets of concentric controls: for playback volume, for recording level from the radio inputs, and for recording level from the microphone inputs. The latter two can be mixed.

A single small power/monitor switch turns on the recorder and connects the output either to the input signal or to the output of the playback amplifiers. This makes possible a direct A-B comparison between the incoming signal and the signal recorded on the tape. Alternatively, this function can be performed by the preamplifier's tape-monitor switch.

A feeler arm which responds to tape tension turns off the recorder when the tape has run out—in either direction. It will also shut off any auxiliary equipment plugged into the a.c. convenience outlet in the rear of the recorder. This is a convenient feature when a clock switch is used to turn on the recorder and a tuner at a preselected time for untended recording.

The transport of the F-44, like that of the 1200-series recorders, is controlled by two bar knobs. One knob places the tape in the normal PLAY or RECORD

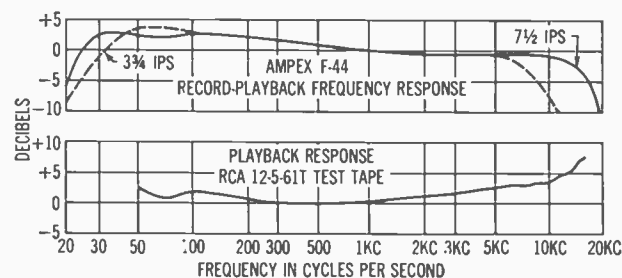
mode (a separate button is simultaneously pressed to switch the machine to its RECORD mode). A switch selects quarter-track mono recording, stereo, or sound-on-sound from either track to the other. Independent red lights indicate which channel is recording. The second bar knob selects fast forward or rewind. Unlike the previous model, which had a single STOP button effective in any mode of operation, the operating knobs in the F-44 are returned to neutral by hand.

I measured the record-playback frequency response of the Ampex F-44 by recording test tones at a -20 -db level on Scotch 111 tape and playing them back into an audio vacuum-tube voltmeter. The over-all response was within ± 2.5 db from 23 to 14,000 cps at $7\frac{1}{2}$ ips, and within ± 3 db from 27 to 7,000 cps at $3\frac{3}{4}$ ips. Both figures compare favorably with the published specifications, and both speeds, checked with a tape strobe, proved to be exact. The playback response, using the RCA 12-5-61T (a half-track, $7\frac{1}{2}$ -ips mono tape) was within ± 2.5 db from 38 to 13,500 cps, rising beyond these limits. I believe the rising high-frequency response is characteristic of four-track recorders when playing this half-track tape, since I have observed this effect on other good machines.

The combined wow and flutter was 0.07 per cent at $7\frac{1}{2}$ ips and 0.16 per cent at $3\frac{3}{4}$ ips, significantly bettering Ampex's specifications. The signal-to-noise ratio, rated at 53 db and 48 db at the two speeds, measured 52.5 db and 51 db, respectively. Stereo channel separation was greater than 50 db at 1,000 cps. At maximum gain, 0.06 volt at the radio inputs or 0.1 millivolt at the microphone inputs was sufficient to produce maximum recording level. The playback output level was 0.78 volt. In fast-forward and rewind, 1200 feet of tape was handled in 75 seconds.

In use tests, the tape-transport mechanism worked extremely well. It was not possible to spill or break a tape, no matter how carelessly the controls were handled. Making off-the-air stereo tape recordings, I was unable to hear any difference between the incoming and outgoing signals from the recorder. To my surprise, the only significant audible difference between the $7\frac{1}{2}$ and $3\frac{3}{4}$ ips performances was a slight increase in background hiss at the slower speed. I rather suspect that the superb sound of the Ampex F-44 is perhaps due more to its freedom from distortion and background noise than to its frequency response. I have used other recorders with wider frequency response that did not sound nearly as natural and unstrained.

(Continued on page 34)



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THE NEW AWARD TA7000X



What makes a stereo receiver great? Performance, reliability, versatility, simplicity of operation. The new Award TA7000X fulfills all these requirements! Here's how:

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- A stereo preamplifier offering every control and facility you require, sensibly arranged and simple to operate. These include: a blend control for perfect stereo regardless of speaker placement or room acoustics; stereo contour to boost

bass response at low listening levels, stereo headphone, rumble and scratch filters, separate bass and treble, tape monitor—you name it, the TA7000X has it!

- An FM tuner offering extreme sensitivity, plus the unique STEREO LOGIC CIRCUIT. This is the exclusive solid state device that literally thinks for you! It automatically switches the tuner to stereo the instant a station begins to broadcast stereo!

- An AM tuner offering low-noise, wideband circuitry designed to make AM listening a totally new experience!

Compare the new TA7000X to all other brands. From input to output, this is the newest, most exciting receiver on the market today. And the price is only \$369.95 (slightly higher in the West.) Add speakers, a turntable or record changer, and your stereo system is complete! For complete specifications, write Dept.

R-2 Harman-Kardon, Inc., Plainview, New York.

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The F-44 series is available in four models. The F-4450 (which I tested) and the F-4452 are designed for custom installation. The Model F-4452 has microphone jacks on the front panel and lacks playback-volume controls. The portable F-4470 is the F-4452 with built-in 1.5-watt monitor amplifiers and speakers. The F-4450 (or F-4460 in a portable luggage case) has the microphone jacks on the side and the playback-volume controls on the front panel.

The Ampex F-4450 deck is priced at \$549.50, the F-4460 at \$595, and the F-4470 at \$695.

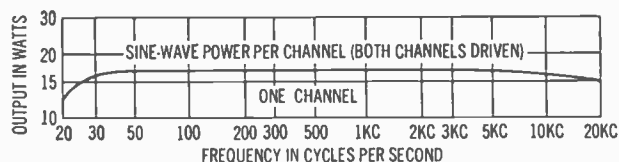
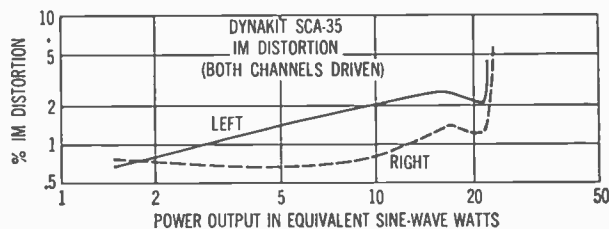
DYNAKIT SCA-35 AMPLIFIER



● THE DYNAKIT SCA-35 is a compact integrated stereo amplifier especially suited for moderate-price home music systems. Its 35-watt output and over-all flexibility, combined with attractive and functional styling, make it worthy of serious consideration by anyone seeking good sound on a limited budget.

Each channel of the SCA-35 uses a pair of 6BQ5 output tubes operated with cathode bias. A 7199 pentode-triode tube serves as a voltage amplifier-phase inverter, and a single 12AX7 functions as the phono/tape preamplifier stage. A combination of positive and negative feedback is used throughout the amplifier for high gain and low distortion. According to Dynaco, the four output tubes, which use a common cathode resistor for bias, should be matched for best results; a set of matched tubes is supplied with each amplifier. The tone controls and filters are all passive types and use encapsulated networks for wiring directly to the associated potentiometer or switch terminals.

In keeping with Dynaco's functional-design philosophy, the input selector and volume control have large knobs, since they are the ones most frequently used in the operation of the amplifier. There are three smaller knobs for the balance, bass, and treble controls. The tone controls for the two channels are ganged. Four



slide switches control power on-off, loudness compensation, stereo/mono operation, and the filters. High- and low-frequency filters are switched together.

On the rear apron are input jacks for three types of phono cartridges (high- or low-output magnetic and ceramic), though only one can be used at a time. There are also outputs—for feeding a tape recorder—that are independent of the volume and tone controls.

The loudspeaker connections are marked 8 and 16 ohms, but 4-ohm speakers of moderately high efficiency can be operated from the 8-ohm terminals. A center-channel speaker can be driven directly from the SCA-35, and a 3/8-inch hole is provided in the rear apron for installing a level control (not provided) for controlling the third speaker. Alternatively, a stereo-headphone jack can be installed in this hole if preferred. Instructions are supplied for both modifications. The kit supplied for review was put together by an experienced builder in eight hours. A second SCA-35, built by a less practised hand, was assembled in about 12 hours.

With 117 volts a.c. input, I measured the output of the SCA-35 as 17 watts per channel at 2 per cent distortion, with both channels driven. Dynaco bases its specifications on a 120-volt a.c. line input, at which voltage I measured 17.6 watts. Driving only one channel raised the output to 20 watts at 2 per cent distortion. Substantially full power was available from 30 cps to 20,000 cps. Dynaco's output-*vs*-distortion specifications (based on 1 per cent distortion and with only one channel driven) were also confirmed.

The filters had a gradual slope and were 3 db down at 85 cps and 3,500 cps. Phono equalization was very good, within ± 1 db of the RIAA curve, and tape-head equalization was within ± 2.5 db. The ganged volume-control sections tracked very closely.

The intermodulation distortion of the SCA-35 was under 1 per cent at normal listening levels and, on the better of the two channels, under 2 per cent at 24 watts output. The difference in IM distortion between the two channels was no doubt due to tube differences. Square-wave response was good, and the amplifier was stable under reactive loads. Under normal operation, the SCA-35 runs quite hot, and the instruction manual is specific about the need for adequate ventilation.

The Dynaco SCA-35 sounded very clean and did a fine job with speakers of moderate or high efficiency. Matching the Dynaco FM-3 tuner in size and appearance, the SCA-35 can form the basis of an excellent music system, both from the aesthetic and technical viewpoints. Naturally, it does not have the punch of its senior relative, the Dynaco Stereo 70, but no one would expect it to. The SCA-35 sells for \$99.95 in kit form, or \$139.95 factory-assembled.

For additional product information, use the reader service card. Circle number 188 for the Ampex F-44 tape recorder, number 189 for the Dynakit SCA-35 amplifier.

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The STAR Performer Concord's Transistorized Model 884.

Concord leadership in tape recorder engineering reaches new and exciting heights with the introduction of the new, transistorized Model 884. A recorder designed to surpass *all* other makes in engineering, styling design, features, and performance, the Model 884 brings you simplicity and ease of operation in a compact, beautifully styled tape recorder package — a recorder that will become your most treasured possession...A STAR in your home!

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Concord, a symbol of quality the world over introduces the new choice of sound connoisseurs, the Model 884 . . . A recorder that combines manufacturing know-how, eye-appeal and professional features...a total package that presents one of the most startling tape recorders on the high fidelity market today, unsurpassed in

quality and price. The Concord 884 quality begins with basic engineering design, careful selection of high-rated quality material and components, plus the development of a high reliability manufacturing and production system which will assure you of a quality product. With this in mind, Concord has been able to achieve a brilliant entry into the tape recorder field—Model 884.

COMPARE THE 884 WITH ANY OTHER TAPE RECORDER AT ANY PRICE. YOU WILL SEE WHY THE 884 IS IN A CLASS BY ITSELF.

• ADVANCED DESIGN • PROFESSIONAL FIDELITY • PROFESSIONAL RELIABILITY
• OPERATING, TAPE HANDLING EASE • CONVENIENT TO USE • COMPLETE FACTORY SERVICE



SPECIFICATIONS

SPEAKERS: TWO — left channel 5" x 7" right channel 7" diam.

PUBLIC ADDRESS OPERATION: Standard

POWER REQUIREMENTS: 110 volts — 60 cycles AC — 100 watts

TAPE SPEEDS: Instantaneous selection, automatic EQ 1 $\frac{7}{8}$ IPS, 3 $\frac{3}{4}$ IPS, 7 $\frac{1}{2}$ IPS

FREQUENCY RESPONSE:
7 $\frac{1}{2}$ IPS—30 · 20,000 cps
40 · 16,000 cps \pm 1.5 DB.
3 $\frac{3}{4}$ IPS—30 · 15,000 cps
40 · 12,000 cps \pm 2 DB.
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SIGNAL TO NOISE RATIO: Better than 60 DB.

FLUTTER & WOW: Less than .15% @ 7 $\frac{1}{2}$ IPS
Less than .23% @ 3 $\frac{3}{4}$ IPS
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HARMONIC DISTORTION: Less than 1.5% at 3 DB below rated output

ERASE HEAD: In-line (stacked) $\frac{1}{4}$ track

RECORD HEAD: In-line (stacked) $\frac{1}{4}$ track (.0005 gap)

PLAYBACK HEAD: In-line (stacked) $\frac{1}{4}$ track (.00015 gap)

BIAS FREQUENCY: 70 KC nominal push-pull oscillator

LEVEL INDICATOR: 2 VU Meters, lighted

LEVEL CONTROLS: Individual controls each channel plus master output control

EDITING FACILITIES: Instant stop button

MODE SELECTION: Instantaneous

INPUT IMPEDANCE: 20K OHM for microphones
100K OHM for auxiliary

POWER AMPLIFIER OUTPUT IMPEDANCE: 8 OHMS

PREAMPLIFIER OUTPUT IMPEDANCE: Low impedance emitter follower

OUTPUT LEVEL: 15 watts combined

WEIGHT: 43 pounds

DIMENSIONS: 15 $\frac{1}{2}$ " (W) x 11 $\frac{1}{2}$ " (H) x 17" (D)

COUNTER: Digital type

REEL SIZE: 7" maximum

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OUTPUTS: 2 lines, 2 speakers, 1 stereo head phone

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1 — speaker extension patchcord for right channel extension speaker

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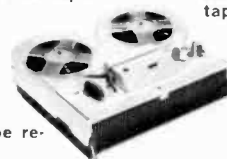
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Dmitri Shostakovich congratulates Yevgeny Mravinsky, conductor of the Leningrad Philharmonic Orchestra, on the occasion of the premiere of the composer's Fifth Symphony, November 21, 1937.

SHOSTAKOVICH'S FIFTH SYMPHONY

DMITRI Shostakovich composed his First Symphony in 1925, when he was nineteen. It was first performed by the Leningrad Philharmonic Orchestra in May of 1926, and Shostakovich was immediately established as a force in twentieth-century music. The First Symphony created a sensation wherever it was heard, and was added to the active repertoire of orchestras in every part of the world.

Shostakovich almost immediately turned his attention to the Second Symphony, which he composed in homage to the Soviet Republic on its tenth anniversary. This score was performed for the first time in Leningrad in November of 1927, but this time Shostakovich did not enjoy the triumph he had a year earlier.

During that period in his life Shostakovich was active in the Leningrad Association for Contemporary Music, an organization that presented performances of some of the latest works from the West. Exposed to the cynical stage works of Berg, Křenek, and Hindemith, Shostakovich decided to compose a satirical opera of

his own. For his subject he chose a fantastic tale by Gogol called *The Nose*, and he produced a score of extraordinary complexity, full of atonality and intricate polyrhythms. There was a Leningrad performance in January of 1930, and the Russian Association of Proletarian Composers promptly branded the opera "bourgeois decadence." *The Nose* was quietly removed from the repertoire after a few performances.

Shostakovich then turned again to the symphony, and produced his Third, with a choral ending modelled after the form of Beethoven's Ninth. As text he took a May Day hymn but, despite the patriotic inspiration, this work, too, was a failure with the public.

During the next few years Shostakovich turned out two satirical ballets, *The Age of Gold* and *The Bolt*, and a social opera, *Lady Macbeth of Mzensk*. The last work enjoyed a great vogue in Russia from the time of its initial presentation in January of 1934 until two years later. On the 28th of January, 1936, there appeared an unsigned article in *Pravda* condemning the



Leonard Bernstein and the New York Philharmonic extract the last ounce of drama from Shostakovich's Fifth Symphony, and Columbia's sound vividly captures every detail. Both Howard Mitchell, with the National Symphony Orchestra for RCA Victor, and István Kertész, with the Suisse Romande Orchestra for London, achieve real eloquence.

opera as theatrically vulgar and musically formalistic. This was apparently the first salvo in a general Soviet volley aimed at artistic "formalism," for the campaign was soon taken up in other parts of the Russian press.

Shostakovich was not the only Soviet artist attacked, but for a time it appeared that he would be the principal victim. He was faced with a difficult decision: to take seriously the words of his critics and thus consciously stifle his natural creative instincts, or to go his own way and risk possible artistic liquidation.

Shostakovich chose the former course. He had begun a Fourth Symphony before the *Pravda* attack was printed, and he completed it. However, he withdrew it from performance after it had been placed in rehearsal in Leningrad in December of 1936, and he immediately began work on another symphony, his Fifth, staking his career (and perhaps his very life) on its acceptance. The Symphony was performed for the first time in November of 1937 in Leningrad.

From the beginning, the Fifth Symphony was hailed with enthusiasm. An article in the *Moscow Daily News* is typical: "The composer, while retaining the originality of his art in this new composition, has to a great extent overcome the ostentatiousness, deliberate musical affectation, and misuse of the grotesque, which had left a pernicious print on many of his former compositions. Shostakovich's Fifth Symphony is a work of great depth, with emotional wealth and content, and is of great importance as a milestone in the composer's development."

EVER since Artur Rodzinski introduced the Fifth Symphony to the United States at a broadcast concert with the NBC Symphony Orchestra in April of 1938, it has been the composer's most admired and most frequently performed symphony in this country. It is a big, bold score in the heroic nineteenth-century tradition, with an especially memorable Largo, a movement of searing intensity that Serge Koussevitzky once called "the greatest symphonic slow movement since Beethoven's Ninth." Not surprisingly, the Fifth Symphony is the most recorded of all the works of Shostakovich. Eleven different editions are listed in the current Schwann catalog, eight of them in stereo.

This is a symphony more than ordinarily pretentious, brooding, mystical, sardonic, and sometimes vulgar. In short, it has many of the same virtues and faults one finds in the symphonies of Mahler. It is no accident, then, that the finest recording of the score comes from the conductor who is also the leading interpreter of Mahler in our time—Leonard Bernstein. The New York maestro wrings every measure of drama and passion from the music, and the close-to microphone pickup reveals it all in most vivid detail. Interestingly, the recording (Columbia MS 6115, ML 5445) was made in Boston's Symphony Hall while Bernstein and the New York Philharmonic were on tour. It is one of the best examples of Symphony Hall's superb acoustical qualities.

The pioneer recording of Shostakovich's Fifth Symphony was made in the late 1930's by Leopold Stokowski and the Philadelphia Orchestra. A few years ago Stokowski rerecorded the symphony for Everest with the Stadium Symphony Orchestra of New York (a *nom de disque* for the New York Philharmonic). The resulting performance (Everest SDBR 3010, LPBR 6010), though similar in concept to Bernstein's, lacks the latter's tightly controlled tension and power.

A performance of surprising effectiveness comes from Howard Mitchell and the National Symphony Orchestra (RCA Victor LSC/LM 2261). Real eloquence is achieved in the slow movement, and the last movement has drive and excitement. István Kertész and Geneva's Suisse Romande Orchestra (London CS 6327, CM 9327) are similarly successful, though on a smaller scale.

Less interesting is the recording by Karel Ančerl and the Czech Philharmonic Orchestra on the low-price Parliament label (S 168). Ančerl seems too remote and matter-of-fact.

The remaining three stereo/mono versions are out of the running, Rowicki and the Warsaw Philharmonic (DGG 138031, 18566) and Skrowaczewski and the Minneapolis Symphony (Mercury SR 90060, MG 50060) because of inhibited emotional responses to the high drama of the music, and Silvestri and the Vienna Philharmonic (Angel S 35760/35760) because of the conductor's capricious tempo changes.

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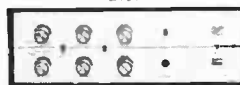
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DWIGHT'S
Journal of Music,

A Paper of Art and Literature.

MR. DWIGHT'S
DAUNTLESS JOURNAL

PART 1

THE STORY OF AMERICA'S FIRST AND MOST INFLUENTIAL
SHAPER OF MUSICAL TASTE

By RAY ELLSWORTH

IN THE early months of 1851, a thirty-nine-year-old unemployed journalist, social reformer, and amateur musician of Boston, his mind filled with the glories of Beethoven and the heady elixir of Transcendentalism, but nevertheless preoccupied with the need for making a living, was moved to embark on a courageous and, in the end, historic enterprise. He decided to publish a magazine that would awaken his fellow Americans to the fact that there was more to music than Stephen Foster, mangled psalmody, English ballads, and Revolutionary odes. He would present to the public—without compromise—enlightening discussions of *real* music: the work of the great German classicists—Bach, Mozart, Beethoven—together with examples of their work in score. Considering that the classic masters were hardly more than names to most Americans, that there was in the whole country but a handful

of musicians capable of playing such music, and that not more than a few hundred miles west Indians were still scalping people, it was, indeed, a courageous undertaking.

The name of this daring middle-aged man on the flying trapeze of noble purpose was John Sullivan Dwight. The name he gave his magazine was, not surprisingly, *Dwight's Journal of Music: A Paper of Art and Literature*, a name it carried through twenty years of unbroken weekly publication and another nine years of fortnightly publication. In its twenty-nine years of life, it, and John Sullivan Dwight, profoundly influenced the course of music in America.

A small man physically, dark-haired, slender, painfully shy, and with a tendency to stutter, John Sullivan Dwight would have been a character of minor historical importance even if he had not published the jour-



John Sullivan Dwight, "The Music Master" (1813-1893).

DWIGHT'S JOURNAL

nal for which he is remembered today. A friend of Ralph Waldo Emerson, a colleague of Charles A. Dana, a confidant of Henry Wadsworth Longfellow, James Russell Lowell, Henry Thoreau, and Nathaniel Hawthorne, Dwight is invariably mentioned with respect in the biographies of these notables for his vigor of mind, his interest in music, and for his beneficent influence on them.

But it was, of course, through his *Journal* that John Sullivan Dwight achieved his permanent place in American history. Dwight visualized a weekly paper committed to a crusading and wide-ranging program of musical education: the best European critical essays in translation; whole books in serial form; the lives of the great composers; historical surveys of musical cultures, ancient and modern; discussions of musical instruments. A corps of knowledgeable correspondents would bring to his readers accounts of musical events in England, France, Germany, and Italy. He would print scores, too—not simple songs for amateurs to perform on the family piano, but examples of the works of Bach, Gluck, Berlioz, Beethoven, and even entire operas in piano transcriptions. It would be, in short, a paper of high critical purpose.

Dwight was not a novice at musical journalism. He had lectured on music appreciation while still an undergraduate at Harvard. His numerous essays on music, which appeared in many of the earlier American music magazines, had already earned him the affectionate title of "The Music Master" among the elite of Boston. But he was tired of dealing with short-lived journals and small or nonexistent checks. Some of his friends—including Dana, George Ripley, Margaret Fuller, and George William Curtis (who had helped Thoreau build his hut on Walden Pond)—had gone to New York to write for Horace Greeley. Dwight, too, wanted to spread his wings.

But the task he had set himself was formidable. As an indication, we find him in a lecture in 1841 feeling it necessary to ask his audience rather plaintively: "Can you not conceive that music, as well as poetry, can have its Shakespeare?" Boston audiences, for all their culture, had not been taught to regard music as an art, one to be ranked with Literature. It was, at best, an amusement. As for the rest of the nation, it did not want music. In fact, Americans knew next to nothing about it—at least from Dwight's point of view. What they wanted was amusement, sensation, the allure of great personalities, and the polish of professional wizardry. And this, in the years preceding the emergence of Dwight as a national knuckle-rapper, was exactly what they had been getting.

Of course, a great many citizens were in church, singing hymns. The history of music in America up to 1850 is in large part that of the evolution of music for the church. Secular music existed, but it was indulged in publicly only by small audiences in big cities. The influence of William Billings, the "fuguig-tune" master, remained strong in the land. Though Billings (another Bostonian) had issued his last volume of songs in 1792, and had died in poverty in 1800, he was the instigator of the wave of itinerant singing teachers who, armed with tuning fork (a Billings invention) and psalm book, swept through town and village, organizing singing societies and planting the musical seeds of a revival hymnody. This hymnody began to stir the American earth shortly after 1800 within the swell of a religious movement known as "The Great Revival," and it outdid even the old Billings music in camp-meeting fervor and undignified salvationist shake, rattle, and roll. Clergymen began to fear mightily for the decorum of the Sunday service. And so there arose one Lowell Mason (also of Boston), the John Sullivan Dwight of the hymn. With Mason, the hymn took on an air of solemn piety, avoided emotional fervor, and achieved nobility of a sort through borrowings from European masters—Schubert, Pleyel, and others. (Some of Mason's tunes were his own, including two of his greatest successes—*Nearer My*

God to Thee and From Greenland's Icy Mountains.) Mason's contribution was looked upon as progress, for his borrowed tunes were better than the old ones, supplied a greater "moral up-lift," and were more suited to the gravity of the merchants who worshipped (with appropriate restraint) in the cities.

Those Americans who were not singing hymns in the 1830's—while Berlioz was writing his *Symphonie fantastique*, Richard Wagner his *Rienzi*, and Chopin was building a reputation in Paris—were going to concerts to hear the ballad songs of an Englishman named Henry Russell, among them the moving entreaty *Woodman, Spare That Tree*. (A member of one of his audiences is on record as having stood up at the end of the song, with tears in his eyes, to ask: "Did the woodman spare the tree, sir?" "He did," Russell assured him. Whereupon the man blew his nose and departed, satisfied and relieved.) Russell had great success with another concert song called *A Life on the Ocean Wave*, which eventually became the official march of the British Marines.

THE DECADE of the 1840's saw the rise to greatness of Phineas Taylor Barnum, and his was the name and his the flavor that dominated the period. The 1840's set the mold: the nation, new, raw, and expanding, began here to travel that straight, firm path of cultural development that would carry it to the pinnacle of the 1890's, when the most conspicuous manifestation of high art in America would be the stickpin in Diamond Jim Brady's necktie.

It was at this time that the phenomenon of the singing family became almost nation-wide. Most prominent of these were the Singing Hutchinsons, four brothers and a sister. They carried on the Henry Russell tradition by paying their last dollar for a copy of his *The Maniac*, a piece Russell termed a "cantata," which they sang with such a wonderful "expression of vacancy inseparable from mania" that they soon became rich and famous. Matching the popular musical favorites (the pianist who played with sleigh bells fastened to his leg, the violinist who stood on his thumbs to show his strength, singers who performed standing on their heads, and so on) was the material they chose to please the tastes of the day—thunderous battle and biblical sonatas, real fire brigades brought in to climax orchestral pieces, temperance songs sung to the actual smashing of bottles, abolition songs, and antitobacco songs (*Would You Spit with Mother There?*).

Another musical phenomenon characteristic of the age was the craze that began with Thomas Rice, a white man who, walking down a street in Philadelphia one day in 1830 (according to one of several authenticated versions of this encounter), saw an aged Negro,

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BURLESQUE OPERATIC SCENA AND DUET FROM NORMA,
Kelly and Leon.
MESMERISM OR THE EFFECTS OF FLUID
DR. BRUSH W. BROCKWAY (OLD LADY) WILLIAM ALLEN (SOME WILD ONE) TERRY (GREAT)

Rip Tearin' Johnny, John Allen
SOLO. VIOLIN. MR. CHAS. HUNNEMAN
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The taste of the times: this minstrel-show program from Chicago (December, 1864) seems to have everything, but it does not include Elizabeth Taylor Greenfield, a popular star of the Sixties known also as *The Black Swan*, who sang Handelian airs in a deep bass voice. For sophisticates, impresarios Kelly and Leon offered the "Great Duet and Scena from *Norma*"—a burlesque.

DWIGHT'S JOURNAL

in tattered clothing, doing an odd little jump-like dance and singing to himself:

"Wheel about an' turn about
An' do jis so,
An' ebry time I wheel about
I jump Jim Crow."

Rice, a young song-and-dance man on the show-boat circuit, knew a good number when he saw one, and thereupon blackface minstrelsy was born. By the time it came to the attention of the young Stephen C. Foster in the early 1840's, its unique mode of expression required not just one performer, but a whole stage filled with black faces, and E. P. Christy had become its most famous practitioner. Violin! Tambourine! Banjo and bones! *Of Zip Coon* and *Coal Black Rose!* And, eventually, of course, *Oh, Susanna!*, *Old Folks at Home*, and *Dixie*. John Sullivan Dwight was to refer to the minstrel shows with especial bitterness, calling them, along with *Rocked in the Cradle of the Deep* and other horrible examples, "a disease." The immense vogue this kind of thing was enjoying at the time he was preparing his *Journal* was not reassuring, but it added missionary zeal to the role he had appointed himself to play.

"A thousand specious fashions too successfully dispute the place of true art in the favor of the public," he wrote angrily in an essay in his first issue. "It [art] needs a faithful, severe, friendly voice to point out steadfastly the models of the TRUE, the ever Beautiful, the Divine."

Conditions notwithstanding, he had reason to hope that the public would hear his voice, for fresh cultural currents were stirring in New England, exciting, uplifting new winds of thought. And did not New Eng-

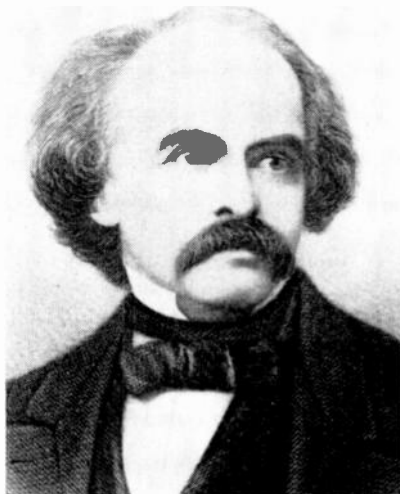
land lead the nation? Paramount among these currents was the discovery of the hitherto unsuspected glories of a Germanic culture long obscured by the doctrinal domination of the British motherland. These glories had been revealed to Boston scholars for the first time not quite a generation earlier, around 1815, through Madame de Staël's book, *De l'Allemagne*, and further during the 1830's and 1840's through the writings of Thomas Carlyle and the lectures of Ralph Waldo Emerson.

Carlyle and Emerson revealed a Germany not of dry, dusty facts and prodigious (but dull) learning, but a Germany of mysticism, of poetry, and of music. Emerson, influenced by Carlyle, developed and promulgated his own ideas concerning the powers of the intuition and the trustworthiness of the inner man: the Over-Soul, in reacting to poetry, beauty, and truth, would point out the path to eternal salvation.

But more electrifying to Dwight than these transcendental speculations were the signs of a renaissance in music, especially in the music of Beethoven, his own "art arch-type." As Dwight observed, Beethoven seemed to appeal especially to minds exposed to Emerson. ("The Bostonians were pleased to call Beethoven "the Emerson of music"!"). The Symphony No. 5 had been introduced to America—in Boston—in 1841 by the Harvard Society Orchestra of twenty-four players "in that old theatre now vanished from the dry-goods part of Boston with the young people sitting in the far upper gallery, or sky parlor, secluded in the shade." From the shade they heard, in Beethoven's music, "as in a sea-shell, the murmur of a grander future."

By 1852, the Harvard Society Orchestra had almost sixty members. It held regular concerts and open rehearsals. "Think of 1,500 people listening every week to orchestral rehearsals of great symphonies and

The members of Boston's Saturday Club (five of the most famous are pictured here) did much to earn the city its sobriquet—The Athens of America. John Sullivan Dwight among them, they met regularly at Boston's Parker House for dinner and discussions that, in time, set the cultural tone of the nation. (Photos courtesy New York Public Library)



NOVELIST NATHANIEL HAWTHORNE
(1804-1864)



POET HENRY WADSWORTH LONGFELLOW
(1807-1882)

overtures!" Dwight exclaimed in one of his first *Journal* essays. Proper recognition of the situation required, he added hopefully, "an organ, a regular bulletin of progress, something to represent the movement and at the same time help guide it to its true end."

Nevertheless, when Dwight's friends learned of his plan—and especially its scope—they were troubled. When he asked his friend Theodore Parker, a successful Boston Unitarian minister, the reason, Parker told him: "You surround yourself with the perfumed cloud of music." The same perfumed cloud might prevent him from seeing that his little horde of cash was fast disappearing down the drain of a magazine that had more culture than circulation. But Dwight was convinced that such a paper as the one he had in mind was needed, and he was determined to supply it.

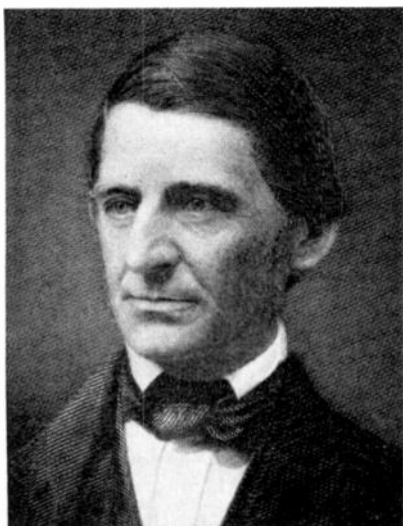
So conferences were held, "friends of music" appealed to, and finally the Harvard Musical Association agreed to guarantee basic expenses for a year. John Sullivan Dwight's *Journal* not only succeeded; it shaped the musical taste of an era, and beyond. Take Dwight's acknowledged distaste for opera, for instance: Boston, great cultural center though it is, still has no opera company of its own—and never has had, in any real sense.

John Sullivan Dwight was, of course, born in Boston. That was on May 13, 1813, a birthday he shared with his arch-enemy-to-be, Richard Wagner. His parents were English, descendants of settlers on the Eastern Seaboard in early Colonial times. His grandfather, a sea captain, had been lost at sea with his ship. His father had been trained for the ministry, then renounced the church to become a physician.

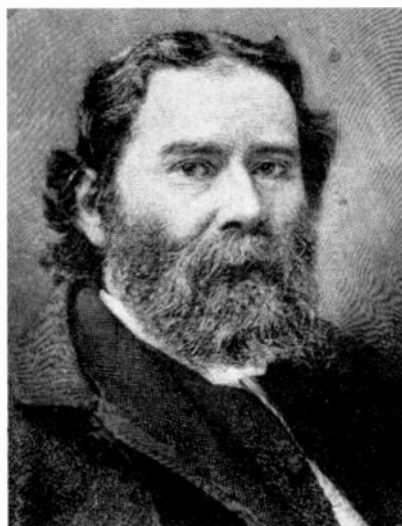
As to formal musical training, Dwight's father, like many medical men, was musical, and taught all four of his children to play both the flute and the piano, even though it was not then fashionable for a gentleman to

know more about music than a few tunes on a flute. Music was for the ladies. In the young Dwight, however, the early instruction started a flame—the boy was soon astonishing everyone by thumping out Beethoven on the family piano. But this was to be the only formal musical training he received. Perhaps an even more decisive factor influencing Dwight's natural musical bent was an undergraduate musical society at Harvard College with the quaint name of the Pierian Sodality (a name inspired by Pope's *Essay on Criticism*), whose cause was, as he phrased it in after years, "to elevate the character of music . . . by bringing it into recognized relations with all serious and true gentlemanly culture."

HE GOT through divinity school, graduating in 1836, but after several years as a clergyman, he was again drawn irresistibly to music, his first love. The principal distinction of his career in the ministry—and no small one, at that—was his substituting a year for Emerson at the latter's East Lexington Church. When his friend George Ripley started the Brook Farm experiment, Dwight saw in it an opportunity to spread the gospel of great music by teaching and writing—and also a chance to eat regularly. Accordingly, he hoed peas (on Sunday, to show his newly acquired religious freedom), staged performances of Mozart masses, and edited, with Dana, the Brook Farm magazine, *The Harbinger*. (Bringing dignity to manual labor was a part of the experiment: Hawthorne shoveled manure; George William Curtis, later an internationally famous writer and editor, trimmed lamps. None liked it much, and most stopped almost as soon as they began, but Dwight hoed on.) The various "isms" connected with the Farm—progressivism, socialism, collectivism, Transcendentalism, and so forth—touched Dwight only slightly, for he saw them all



PHILOSOPHER RALPH WALDO EMERSON
(1803-1882)



POET JAMES RUSSELL LOWELL
(1819-1891)



ESSAYIST OLIVER WENDELL HOLMES
(1809-1894)

DWIGHT'S JOURNAL

simply as instruments for advancing the cause of "music as a means to culture."

Indeed, this idea, which he once used as the title for an article in *The Atlantic Monthly*, was the central one of his life. In his mind, music, the most human and yet the most mystical of the arts, spoke directly—even more directly than the mightiest poetry—to the intuition, Emerson's right-guiding Over-Soul. And America's crude, materialistic, brawling populace had to have culture if the Republic was to be preserved. Culture, after all, was the only thing that differentiated man from the beasts.

There may be detected a note of polite snobbery in Dwight's insistence on the importance of "gentlemanly culture," but it should be kept in mind that this was indeed a crass moment in American cultural history. The industrial revolution was fast covering the landscape with smoke-belching factories, begetting "soul-destroying" machines, and populating the land with pushing, "get-ahead" types. The first and deepest impulse of a man of artistic sensibilities was to dissociate himself from such activities. Emerson, Ripley, Parker, and others had, through the force of their personalities and convictions, managed to leaven this crassness with some degree of culture, and Dwight longed to do the same in his field. It was a challenge, an opportunity to contribute, and moreover, it fitted in with the belief in "Progress," the almost mystical intellectual fashion of the time. Like the old religion, the old music—the English ballads, the "cheaper" hymns, the old psalms and glees, as well as the trickster virtuosos—must be made to fade away for the good of the nation, must be outshone by the light of the new, the "better," the "more scientific."

IF THE force of Dwight's personality was less formidable than that of almost any of the others in his group, his conviction more than compensated for it. Though he could be tart, dry, and witty when he chose to, Dwight was essentially a gentle person who simply wished, more than anything else, that the rest of humanity would join him in the paradise of beauty and good-fellowship that music created for him. Although his ideas about the useful tool of musical analysis are not ours, his directness and simple honesty still give his reviews an almost scientific lucidity compared to the flowery effusions normal in his day.

The following concert review written for his *Journal* is typical of Dwight's work. Although in later years the tartness would emerge more often and with a sharper edge, he was never to alter greatly the tone, flavor, and perceptiveness of this example. The concert at

issue was one given by the Harvard Musical Association Orchestra of fifty men under Carl Zerrhan in 1856. Performed were Mozart's E-flat Symphony (K. 543), and works by Gungl, Donizetti, and Wagner:

"We know not when we have ever enjoyed a work of Mozart more. It was in perfect harmony with that sunny spring day. Each of the four movements is unspeakably beautiful, so that we could hardly tell which we liked best; indeed they form an individual and perfect whole. The rich, majestic introduction commands and fills the mind at once; you give yourself in glad, unquestioning faith to the guide who cannot mistake the way of beauty and inspiration; and the Allegro is a glorious fulfillment of the promise. The Andante breathes the pure ecstasy of love, modulating anon into darker moods and shadowy terrors of the infinite, only to measure the height of so much bliss. It is one of the loveliest of Mozart's slow movements, exquisite in every detail, and leaving a most harmonious and profound impression. The naive, happy little Minuetto was intensely relished; and the Finale, so quaint and Haydn-like in its merry rondo theme, but interrupted by, or rather insensibly yielding to that purely Mozartian sigh of too much happiness, seemed quite as much inspiration as all the rest. To describe the delicious instrumentation, the manner in which the strings, the reeds, and the sparingly used brass conspire to perfect clearness and unity with never ceasing variety of utterance, would be to enter again into an analysis of the wonderful art of Mozart."

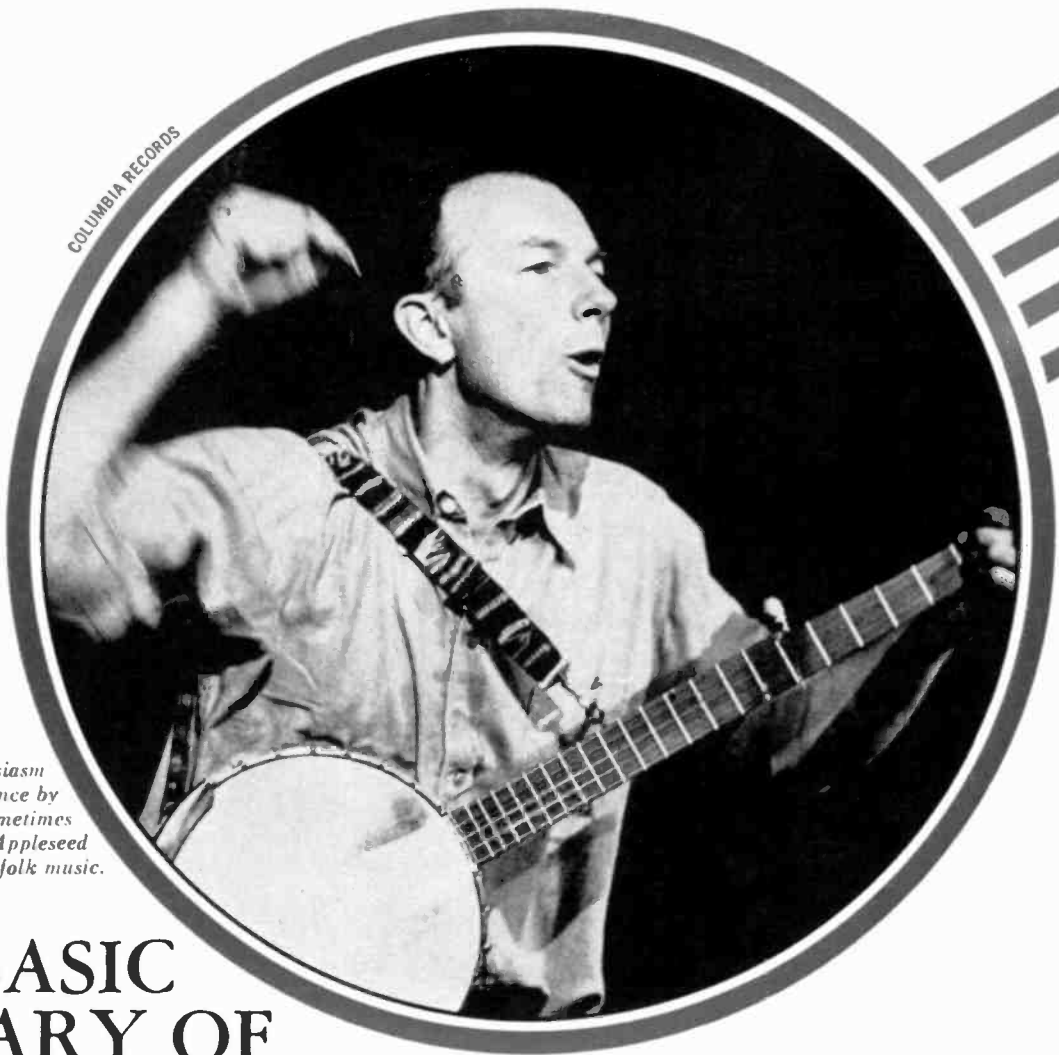
Dwight found Gungl's *Dreams on the Ocean* something less than music for the soul's ear: "He never dreamed anything so fine as Mozart—we fear his dreams, on the ocean or elsewhere, have been more of dollars than of divine beauty." There was also a *Bright Eyes Galop*, which Dwight simply ignored, and "for those who find luxury in tears," the finale of Donizetti's *Lucia*.

"But before these sweetmeats had come Wagner's *Tannhauser Overture*. Nothing could sound more utterly unlike the symphony of Mozart. Here was music altogether of another nature; somewhat hard, ungenial perhaps in contrast with the symphony, and yet music of decided power, music that shows imagination, that quickens imagination in the hearer; music in which the modern art of instrumentation is carried to a rare pitch of splendor and effect. Perhaps it was the influence of the Mozart music, but our ears were more sensitive than usual to the screaminess of those high violin passages and to the jarring roughness of the trombones, and to the too literal pandemonium of the tambourine and cymbals. But we cannot resist the mighty progress of the piece, and the finale is indeed most powerfully worked up."

Dwight was to be somewhat less charitable to the sage of Bayreuth in future issues, but never any less intuitively perceptive. His recognition of Mozart's "darker moods" and his comment about "the Mozartian sigh of too much happiness" were not to be matched in American musical criticism for almost a century.

(To be concluded next month)

COLUMBIA RECORDS



Unalloyed enthusiasm marks every performance by Pete Seeger, sometimes called the Johnny Appleseed of folk music.

A BASIC LIBRARY OF AMERICAN FOLK MUSIC

FIFTEEN SELECTIONS FROM THE RAPIDLY GROWING CATALOG OF OUR LEGACY OF FOLK SONG

By JOE GOLDBERG

BIG BILL BROONZY once defined folk music as "what folks sing," and that is close enough for me. I leave all questions of authenticity and provenance to the scholars, together with the job of separating the genuine articles from the imitators, *poseurs*, and personality kids. Even nonenthusiasts can agree, I am sure, that folk songs have their own validity, that they generally cut much closer to the core of human values and feelings than do the products of Tin Pan Alley. Very much depends, however, on just who is performing the songs: some of our post-collegiate "folk" groups, with their matching costumes and Big Ten gung-ho, could make a song about Christ on the cross sound glib, while other less pretentious singers have the ability to hold our interest simply with an account of John Henry's endurance contest. The discs listed on the pages that follow, then, are chosen simply for who is singing on them.

They are completely personal selections, probably biased, and undoubtedly idiosyncratic, but they have given *me* a great deal of pleasure.

It may be of some interest to note that had I the space to suggest fifty records, the job might have been easier than it was with fifteen. In order to put together this list, I immediately chose eight or nine without hesitation—and then, with great difficulty, tried to select others that would measure up to them. The problem thus quickly became one of narrowing down to a very few the great many discs I considered worth including. Some omissions, needless to say, were painful. One performer I very much wanted to include—Blind Lemon Jefferson—is not represented here because his records are unavailable. I wish I had space also for the Weavers, the Carter Family, Lightnin' Hopkins, and a few others. The order of choices is alphabetical. *(Continued overleaf)*

AMERICAN FOLK MUSIC

JOAN BAEZ: *In Concert, Volume Two. Jackaroe: Fennario; Railroad Bill; Three Fishers;* and twelve others. VANGUARD VSD 2123 \$5.98, VRS 9113 \$4.98.

Joan Baez, perhaps the most popular folk artist before the public today, makes no claim to authenticity. As she told Nat Hentoff in an interview for this magazine, "Sometimes I do wonder about where a certain song came from and what it means beyond what the lyrics say. Yet this aspect of folk music has always been so secondary with me." She has perhaps the most beautiful voice in folk music, and uses it with a paradoxical combination of reserve and intensity that can evoke a fuller response than a more direct emotionalism. It is difficult to choose one from among Miss Baez' albums, for each contains splendid things (and some others that leave me cold). I list her latest album not only because it is an in-concert performance, conveying some hint of her personal contact with audiences, but because it contains a wider range of her present material than do her others: the Bluegrass *Long Black Veil*, the protest anthem *We Shall Overcome*, the old English *Queen of Hearts*, and Bob Dylan's contemporary *Don't Think Twice, It's All Right*.

BIG BILL BROONZY: *Sings Country Blues. In the Evening; Trouble in Mind; South-bound Train; Poor Bill Blues; Saturday Evening Blues;* and seven others. FOLKWAYS FA 2326 \$5.95.

Big Bill Broonzy is something of an anomaly among blues singers. At various points in his career, having no set style of his own, he attempted to give the public what he thought it wanted—singing in the style of Blind Lemon Jefferson, Lonnie Johnson, Leroy Carr, and Josh White. But when he was being just Big Bill the country-blues singer, he could be marvelous. He prefers to be remembered, as he tells us in his autobiography *Big Bill Blues*, as "a well-known blues singer and player [who] recorded 260 blues songs from 1925 up 'till 1952." The album recommended here is one of two companion discs recorded shortly before his death in 1959. The other, "Big Bill Broonzy, Songs and Story" (Folkways 3586), contains, along with music, most of a touching and hilarious radio interview Big Bill made with Studs Terkel.

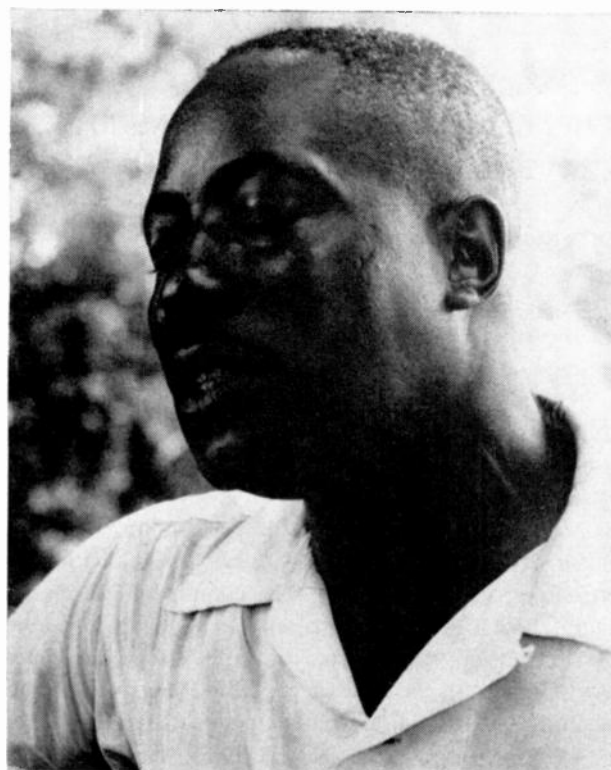
BOB DYLAN: *The Freewheelin' Bob Dylan. Oxford Town; I Shall Be Free; Down the Highway; Masters of War; Corrina, Corrina;* and eight others. COLUMBIA CS 8786 \$4.98, CL 1986 \$3.98.

Bob Dylan is unquestionably the most powerful force in contemporary folk music. He is certainly the most gifted writer of folk material today, and probably the most exciting performer. Something of a Woody Guthrie of the Sixties, he has the same naïveté, feeling for the underdog, anti-intellectualism, and insight that characterized his idol. At least one of Dylan's protest songs, *Blowin' in the*

Wind, seems likely to become a classic, and there will probably be more. Even those who do not respond positively to Dylan's personality should listen to this album. If you want to know what many Americans under thirty are thinking and feeling, here is the answer, distilled into art with undeniable force.

JACK ELLIOTT: *Sings Songs of Woody Guthrie. Tom Joad; This Land is Your Land; Hard Travelling; Grand Coulee Dam; How-di-do; Philadelphia Lawyer;* and eight others. PRESTIGE INTERNATIONAL 13016 \$4.98.

Jack Elliott is a remarkable exception to most of the accepted rules by which the validity of a folk performer may be tested. He has spent most of his professional life trying to sound like someone else. "But," to quote John Greenway in the notes for this album, "Elliott is not a mere imitator of Woody Guthrie; the person who said 'he sounds more like Woody Guthrie than Woody does himself' accidentally struck upon an important insight. Guthrie evolved a unique guitar style; Elliott has perfected it. Guthrie's singing, too, was imperfect; Elliott has refined that singing beyond anything but the very best of Woody's renditions." There is, of course, no substitute for originality, but there is much to be said for electing to carry on an important tradition, if one is emotionally attuned to it. Guthrie himself, because of illness, will never be able to perform again. In these circumstances, we are fortunate in having this collection of some of his finest songs sung with loving fidelity to the originals.



FOLKWAYS

LESTER FLATT AND EARL SCRUGGS: *Songs of the Famous Carter Family. Keep on the Sunny Side; Jimmy Brown the Newsboy; Forsaken Love; You Are My Flower;* and eight others. COLUMBIA CS 8464 \$4.98, CL 1664 \$3.98.

Lester Flatt and Earl Scruggs are the high priests of the now ubiquitous Bluegrass style, Southeastern mountain music in which great store is set by virtuosity on the banjo, fiddle, and dobro guitar. Though every one of the Flatt-Scruggs group is a brilliant instrumentalist, the main attractions are Flatt's matter-of-fact vocals and the Bluegrass trademark, the five-string banjo played in a manner called "Scruggs style" after the man who invented it. Since the vocal style most closely associated with Bluegrass was developed by the Famous Carter Family, it is appropriate to select this album to represent the style—both past and present. As a bonus, Mother Maybelle Carter is heard here playing a nearly vanished string instrument called the autoharp.

WOODY GUTHRIE: *Bound for Glory. Ship in the Sky: Pastures of Plenty; Do Re Me; Jesus Christ;* and nine others. FOLKWAYS FA 2481 \$5.95.

Unlike the others represented on this list, Woody Guthrie is included more for his aspiration and influence than for his accomplishments as a performer. Pete Seeger has written of Guthrie that "He put his rhymes to tunes which were, more often than not, slightly amended versions of old folk melodies. . . . He was often not exactly conscious of where he got the tune, until it was pointed out to him. . . . Anything worth discussing was worth

a song to him: news off the front page, sights and sounds of the countryside he traveled through, and thoughts brought to mind by reading anything from Rabelais to Will Rogers." Guthrie was a poet and a pamphleteer, deeply involved in the labor movement in the 1930's; but he also wrote children's songs, love songs, and sardonic ballads. Many singers who owe much to him are more satisfying as performers than Guthrie himself, whose voice and guitar playing were both limited. But he was perhaps the most important single influence upon today's folk music. The Guthrie album I recommend includes sections of his autobiography, *Bound for Glory*, read by Will Geer.

CAROLYN HESTER: *This Life I'm Living. Brave Wolfe; East Virginia; I Want Jesus; I Loved a Lass;* and seven others. COLUMBIA CS 8832 \$4.98, CL 2032 \$3.98.

Carolyn Hester has unfortunately been somewhat overshadowed by Joan Baez. Both young ladies began to record at about the same time, and both are striking girls with lovely voices. In contrast to Joan Baez' austerity, Miss Hester radiates a warmth and sweetness that I find in no other folk singer now performing. She is a subtle performer with an unusually sophisticated rhythmic sense, and she invariably chooses excellent material. Her specialities are early American and Spanish-language songs. She concentrates on the timelessness rather than the timeliness of folk song, and in following this goal she has become one of the most satisfying performers in the idiom.

(Continued overleaf)



COLUMBIA RECORDS



FOLKWAYS

Big Bill Broonzy (facing page) was distinguished for his direct and forceful country-blues style, while Carolyn Hester (left) specializes in lovely interpretations of early American and Spanish-language folk songs. Woody Guthrie (above), although no longer performing, remains an influence on some of our younger singers.

AMERICAN FOLK MUSIC

CISCO HOUSTON: *I Ain't Got No Home. My Gal; Danville Girl; Streets of Laredo; Hobo Blues; Bonneville Dam;* and eleven others. VANGUARD VRS 9107 \$4.98.

Cisco Houston was not a stunning or overwhelming performer, but a quiet one whose best records have the quality of someone singing for a group of friends. Houston was obviously deeply dedicated to folk music, and that commitment is everywhere discernible in his work. There is no attempt at rural authenticity; he is simply an intelligent, cultivated man singing music he loves. This is Houston's last record, and he knew when he made it that he was dying of cancer, but I do not include it for that reason. It is, in my opinion, one of the two best records he ever made. The other is his collection of the songs of his road buddy Woody Guthrie (Vanguard VSD 2131, VRS 9089), but his last disc has greater variety.

MAHALIA JACKSON: *The World's Greatest Gospel Singer. Didn't It Rain; Keep Your Hand on the Plow; Out of the Depths; Jesus;* and seven others. COLUMBIA CL 644 \$3.98.

Hyperbolic album titles can usually be taken with a grain of salt, but Mahalia Jackson probably *is* the world's greatest gospel singer. Some other gospel performers would like to take Miss Jackson out of the competition by labeling her a "concert artist," but there is no doubting the genuineness of her approach to one of our most gripping folk forms. At Miss Jackson's command are an awesome cello-like voice, an overwhelming passion, and a personality that makes it a privilege to attend her concerts. This album, her first for Columbia, was made with Mildred Falls, who is one of the foremost gospel pianists in the

The late Cisco Houston, a wanderer like his friend Woody Guthrie, is remembered for his easy style, wry humor, and virile gentleness.

country. I have chosen it not only because it contains striking performances of some of the best of Miss Jackson's repertoire, but also because it was made before Percy Faith and others began setting her awash in a sea of strings.

LEADBELLY: *Take This Hammer. Green Corn; Yellow Gal; Moaning; Leaving Blues;* and ten others. FOLKWAYS FA 2004 \$4.25.

Huddie Ledbetter, better known as Leadbelly, was almost a folk hero by the time of his death in 1949. John Lomax brought him from Louisiana to New York, where he thrilled audiences who were looking for authentic blues. Leadbelly had known and worked with Blind Lemon Jefferson, and most refinements of the blues since then had passed him by: he harked back to work-song, ring-shout, and field-holler. His style is so rough that the lyrics are sometimes incomprehensible, but he was a master of the powerful twelve-string guitar. The 10-inch record I have suggested includes some of the best-known songs associated with him, songs that more sophisticated performers have made concert staples: *Pick a Bale of Cotton, Take This Hammer, Bring Me a Little Water, and Goodnight, Irene.*

BROWNIE MCGHEE: *Blues. Sporting Life; Careless Love; Good Morning Blues; Betty and Dupree;* and three others. FOLKWAYS 2030 \$4.25.

The singer and guitar player Brownie McGhee, most often heard in the company of the singer and harmonica player Sonny Terry, has been one of the more successful popularizers of the Negro blues. His work rests on a dangerous middle ground, neither as obviously polished as that of Josh White or Harry Belafonte nor as authentic-



FOLKWAYS



MGM RECORDS

Hank Williams usually sang about the heartaches of country love.

ally craggy as that of Robert Johnson or Lightnin' Hopkins. Thus he has often been under fire from partisans of both camps. Though many of the McGhee-Terry collaborations have been too polished for my taste, McGhee is alone on the 10-inch disc recommended here, and his rumbling voice and flashing guitar are enough to dispel any objections to his method. His collection of blues, seven in all and largely gentle and rueful, is one of the most charming I have heard.

PETE SEEGER: *American Industrial Ballads. Peg and Awl; Casey Jones; Pittsburgh Town; Hayseed Like Me; Hard Times in the Mill; Sixty Per Cent;* and nineteen others. FOLKWAYS 5251 \$5.95.

To many younger aficionados, Pete Seeger is the folk-music movement. Nat Hentoff has accurately remarked that, as a performer, "Seeger is more a nimble cheerleader than an excavator of the marrow of folk feeling," but this in no way diminishes Seeger's genuine importance. He has gone everywhere and sung to everyone, teaching the guitar and banjo, carrying with him his altruistic—and sometimes naïve—idealism, inventing today's hootenanny nearly singlehandedly. He has justifiably been called folk music's Johnny Appleseed. Among his diverse albums, "American Industrial Ballads" stands out because it is practically a capsule history of the labor movement, and displays many of Seeger's polemical interests—the fight for unionism, the fight against low wages, bad housing, and automation. And it contains a hair-raising performance of a truly magnificent American song, *The Buffalo Skinners*.

HARRY AND JEANIE WEST: *Favorite Gospel Songs. Amazing Grace; Sweet Bye and Bye; Matthew Twenty-Four; Man of Galilee;* and twelve others. FOLKWAYS FA 2357 \$5.95.

While Negro gospel music is enjoying an unprecedented wave of popularity, Southern white gospel song goes almost completely unnoticed. This is unfortunate, for in the region to which it is indigenous, the music is an important part of people's lives. The musical antecedents of white gospel are about the same as those of Bluegrass; the lyrics are fundamentalist and concerned with "revealed" religion. This album, by Harry and Jeanie West, who come respectively from Virginia and North Carolina, is the best disc of white gospel music I have heard.

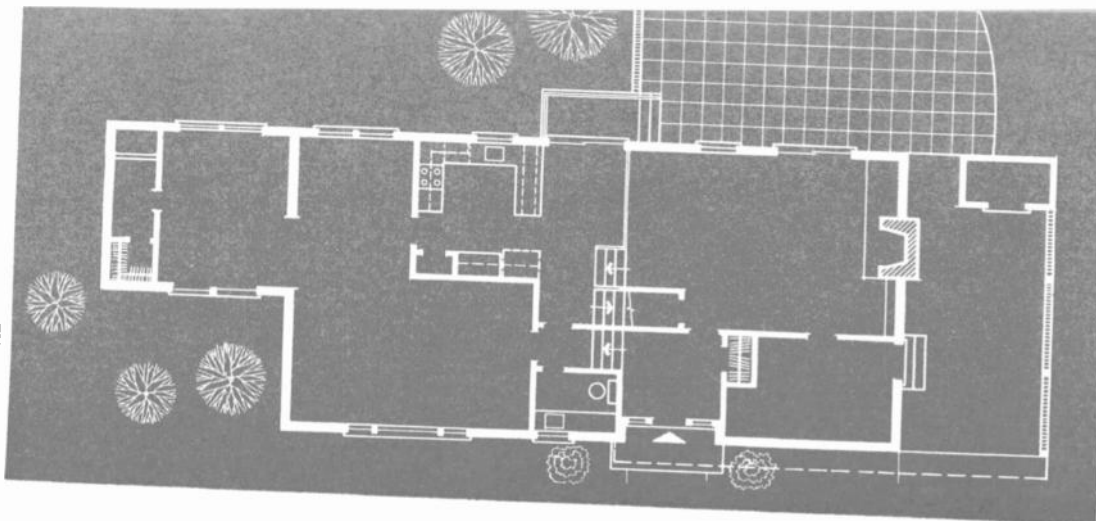
HANK WILLIAMS: *The Very Best of Hank Williams. Cold Cold Heart; Kaw-Liga; Your Cheatin' Heart; Why Don't You Love Me;* and eight others. MGM E 4168 \$3.98.

To followers of country-and-western music—which used to be called hillbilly and is still one of our most vital but somewhat looked-down-upon folk styles—Hank Williams is Charlie Parker, Dylan Thomas, and James Dean all rolled into one. Born in 1923 and dead (of an excess of living) on New Year's Day, 1953, Williams is still featured prominently on Southern jukeboxes. Ray Charles leaned heavily on Williams' songs for his recent popularizations of country songs (*You Win Again, Your Cheatin' Heart*). In Williams' own world-weary style, his songs of despair and betrayal call to mind the troubadour songs of courtly love and *la belle dame sans merci*. More than ten years after Williams' death, MGM continues to repackage and reissue his records, and the new album suggested here contains some of his finest and best-known work: *Lovesick Blues; Hey, Good Lookin'; Jambalaya; So Lonesome I Could Cry;* and others.

TALKING UNION. Pete Seeger. Almanac Singers, others. *Union Maid; Which Side Are You On; Hold the Fort; We Shall Not Be Moved;* and nine others. FOLKWAYS F 5285 \$5.95.

This selection might seem anachronistic—why not songs of the Freedom Riders?—but for many of my generation, "Talking Union" remains the prototype of the power of polemical folk song. I have heard these songs sung many times, not by anyone who fought in Harlan County or who sat down inside Fisher Body No. 2, but by younger people who felt the thrill of singing a song that called for action and that made them feel part of a movement. The enormously changed situation of labor unions since the days these pamphleteering adaptations of hymns and folk songs were written in no way diminishes their importance as documents, or the strength of commitment that rages through the occasionally ragged performances.

Joe Goldberg, educated at Northwestern, moved to New York City from West Virginia in 1956. He has reviewed folk-music and jazz discs for HiFi/STEREO REVIEW for the past two years.



CONTROLLING LISTENING-ROOM

AN ACOUSTICAL EXPERT EXPLAINS

MUCH has been published (in this magazine and elsewhere) on the problems of concert-hall acoustics. The celebrated difficulties at Lincoln Center's Philharmonic Hall, however, while of interest, are somewhat remote from the acoustic problems the average music listener must deal with in his own listening room. For the body of air that lies between the cone of the speaker and the ear of the listener *in his own home* has enormous potential for enhancing or impairing the quality of the sound his high-fidelity system produces. This potential is directly affected by physical factors capable of being predicted, measured, and—most important—controlled. This article discusses what the listening room's acoustic performance should be, and describes what can be done to obtain the performance desired.

Before we go further, a brief review of some basic acoustical concepts may be in order. A sound wave is generated by alternate compression and rarefaction of the air. As a loudspeaker cone moves forward, it compresses the air immediately in front of it. This "front" of increased air pressure spreads outward and away from the loudspeaker at the speed of sound—approximately 1,130 feet per second. Meanwhile, the loudspeaker cone reverses its motion, and by so doing creates a rarefaction. A front of decreased air pressure then spreads outward at the same speed. Thus, as the loudspeaker's cone moves alternately forward and backward, waves of compression and rarefaction are radiated into the room.

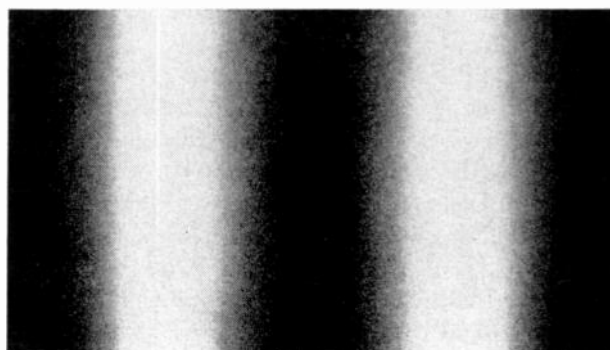
If the cone makes 100 to-and-fro motions every second, each compression wave will follow the preceding one at a time interval of $\frac{1}{100}$ second. In that interval each compression wave will travel $\frac{1}{100}$ of 1,130 feet,

or 11.3 feet. (Rarefactions are separated by the same distance, of course.) The distance in air between a sound wave's corresponding parts is called its *wave length*; 11.3 feet, then, is the wave length of a sound wave of a frequency of 100 cycles per second (cps).

When a speaker cone makes 500 to-and-fro motions each second, a 500-cps sound wave is generated. Its wave length is 1,130 divided by 500, or $2\frac{1}{4}$ feet. A 40-cps frequency represents a sound-wave length of 1,130 divided by 40, or 28.2 feet. The lower the frequency of a sound wave, the greater its wave length. It is apparent that these low-frequency wave lengths approximate the dimensions of most living rooms.

When a sound wave encounters an obstruction or meets a boundary—such as the wall of a room—part of the sound is reflected and part of it is absorbed. Both actions are important, for they determine how the room modifies or "shapes" the sound. For the moment, let us consider the reflected part of the sound.

Fig. 1. Side view of the sound-pressure distribution in a room when the second resonance of the room's length is stimulated. The darkest areas represent zones of maximum sound pressure.



ACOUSTICS

By ROY ALLISON

HOW YOU CAN IMPROVE THE SOUND IN YOUR LISTENING ROOM

Imagine a loudspeaker located at one end of a room 15 feet long, reproducing a frequency of 37.7 cps. The wave length is 1,130 divided by 37.7, or 30 feet—exactly twice the length of the room. A compression that travels the length of the room, is reflected from the end wall, and travels back to the speaker will arrive just in time to meet another compression being generated. It will reinforce that compression. In fact, the 37.7-cps tone might be uncomfortably loud at both ends of the room, because at those points the reflected sound and the direct sound are always in additive relationship. At the center of the room, however, the reflected compression wave coincides with the direct rarefaction wave, and there is cancellation rather than reinforcement. This is a so-called standing wave, or resonance, and is like any other acoustic resonance (as in a brass musical instrument or an organ pipe).

A room has standing-wave resonances at many frequencies, which are determined by the room dimen-

sions. The number, frequency spacing, physical distribution, and severity of these standing waves are responsible for the acoustic character of the room.

Such room resonances are beneficial, if properly controlled, in two ways: first, they decrease the amount of acoustic power it is necessary to put into the room for a given loudness; second, they provide an acoustic environment without which music would sound quite unnatural. The room should not have a strong personality of its own. If it does, it can mask the desirable reverberative character of the concert hall which has been recorded along with the music, and thus decrease the illusion of reality. Such a room is likely to be unpleasant to live in, to say nothing of its effect on reproduced sound. But an overly "dead" room is almost as unpleasant in a different way, and reproduced music sounds just as unnatural in it, since experience leads us to expect to hear reflected sound in a room as well as direct sound. If all reflections are missing, even the

Fig. 2. Side view of sound-pressure distribution when the combination resonance of a room's width and height is activated. Pressure is least in centered vertical and horizontal planes.

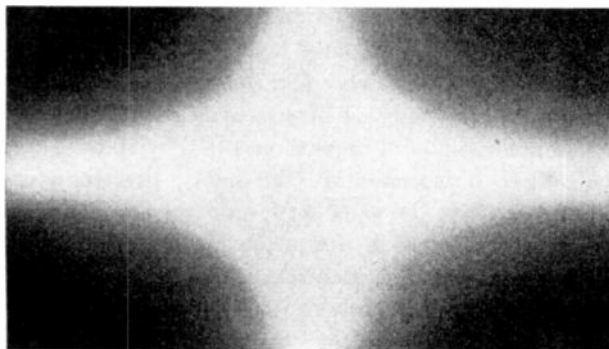


Fig. 3. Overhead view of sound-pressure distribution when the combined second-order resonance of a room's length and width is stimulated. Nine columns of maximum sound pressure result.



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recorded concert-hall reverberation cannot make up for the loss.

The trick is to strike the proper balance between an excessively live and a dull, dead room; to spread the room's resonant frequencies as evenly as possible; and to avoid exciting those standing waves that are harmful. When this is done the room reinforcement becomes fairly uniform for all frequencies, so that the tone color of complex musical sounds is preserved; the listening position within the room becomes less critical; and the room reverberation is at such a level that it provides minimum interference with the recorded reverberation but is not disturbingly absent. It is worth trying to approach this ideal for the same reasons that it is worth the expense to use high-fidelity speakers, amplifiers, and record-playing equipment.

The standing wave of lowest frequency for any room is found by dividing 565 by the *length* of the room in feet. (This gives the frequency at which the room is one-half wave length long.) For example, if the room length is 20 feet, the fundamental (lowest) resonant

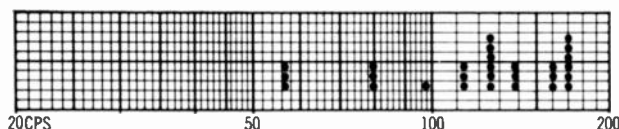


Fig. 4. Dots indicate frequencies at which resonances occur in a 10 x 10 x 10-foot room. The gaps between resonances and the bunching at some frequencies result in an uneven bass response.

frequency is 565 divided by 20, or 28.2 cps. Standing waves occur also at all multiples of the room's fundamental length resonance. At the room's second length resonance (56.5 cps, still assuming a 20-foot room length), areas of maximum sound pressure occur at both ends of the room and also at its center, with cancellations (nulls) occurring a quarter of the distance from each end wall. This is shown in Fig. 1. At the third length resonance (three times the frequency of the first length resonance), the sound is loudest at both ends of the room and also at $\frac{1}{3}$ and $\frac{2}{3}$ the distance along the length of the room. It is worth emphasis here that the *locations* of the high and low sound-pressure areas are *independent of speaker placement*, although speaker location does affect the magnitude of the intensity differences.

Similar sets of resonances exist for the width and height dimensions of the room. The first resonant frequency for each dimension can be found by dividing the dimension (in feet) into 565; the other standing-wave frequencies for that dimension are found by multiplying the first frequency by 2, 3, 4, 5, and so on.

Standing-wave resonances are formed also by reflections more complex than the simple wall-to-opposite-wall or floor-to-ceiling reflections. They occur for the combinations of any two dimensions and for combinations of the dimensions' submultiples; and for three dimensions and all combinations of their submultiples. Sound-pressure distribution patterns for these standing waves can be visualized easily, however, by remembering that the number of sound-pressure nulls for each dimension corresponds to the order of the standing wave (first, second, third resonance, etc.) for that dimension. Figure 2 is a view of the sound-pressure distribution in a room that has been stimulated at a frequency determined by the combined first-order resonances of the width and height. Sound pressure is minimum in a vertical plane at the center of the width dimension, and also in a horizontal plane at one-half the room height.

Combination resonant frequencies that excite only the length and width dimensions produce column-shaped regions of maximum sound pressure. A room is shown in Fig. 3 being stimulated at a frequency corresponding to the combined second-order standing waves of length and width. Nine regions of maximum sound pressure extend uniformly from floor to ceiling. If this frequency happened to be one for which the height dimension were involved also, each of these nine regions would be divided by nulls into halves, thirds, or quarters (depending on whether the first, second, or third order of standing wave for the height dimension was involved).

AT THIS point we can shift our attention from theory to practice. Since the frequencies at which room reinforcement occurs are determined by all the room di-

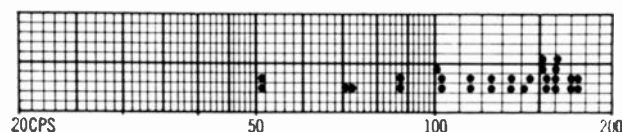


Fig. 5. Resonant frequencies plotted to 175 cps for a room with dimensions of 11 x 11 x 8 feet. The two identical dimensions cause poor distribution and pairing of the resonant frequencies.

mensions, individually and in combination, how should these dimensions be related?

Let us consider a very bad listening room. Figure 4 shows the standing-wave frequencies plotted up to 170 cps for a room with dimensions of 10 by 10 by 10 feet. All three dimensions are the same; therefore, each dimension has the same first resonant frequency, the same second resonant frequency, and so on. This creates groups of three identical single-dimensional resonances at frequencies of 56.5 cps and at all multiples of that frequency. Standing waves for all like combina-

tions of two dimensions occur at identical frequencies also. The only resonant frequency that stands alone is for the interaction of all three fundamental standing waves, at approximately 98 cps.

This is the worst possible case. A number of resonances at the same frequency, isolated far from other resonant frequencies, produce very powerful reinforcement only at those frequencies and very little reinforcement between. Such a room would be thoroughly objectionable for music-listening purposes.

Only a little less objectionable is a room in which two dimensions are identical. Resonant frequencies up to 175 cps are plotted in Fig. 5 for a room with dimensions of 11 by 11 by 8 feet. Note the pronounced pairing of standing-wave frequencies and the relatively wide spacing between each pair.

A similar situation is shown in Fig. 6, but in this case one dimension is an exact multiple of another. The room here is 20 by 10 by 8 feet. Pairing of resonant fre-

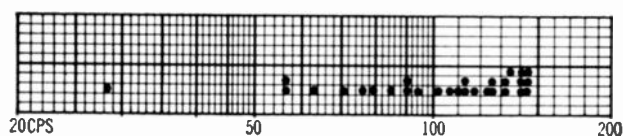


Fig. 6. In this 20 x 10 x 8-foot room, where one dimension is a multiple of another, there is a tendency toward clustering, but the spacing of resonances is superior to the previous examples.

quencies begins at 56.5 cps, which is the first resonant frequency for the width and the second resonant frequency for the length. Even so, the distribution is not bad (the height dimension is a fortunate one) except for the isolated first standing wave of length, at 28.2 cps, and the severe clustering of several nearly identical resonant frequencies in the 130- to 150-cps region.

The gap between the first and second resonant frequencies for each dimension is one octave. To obtain the best frequency distribution of standing waves, therefore, it seems logical to proportion the room dimensions so that the first resonances for length, width, and height are evenly spaced within one octave. It turns out that this is accomplished when the ratio of width to height is as the cube root of 2 (about 1.26) is to 1, and when length is related to width by the same ratio—in other words, when the three dimensions are related approximately as 1 to 1.25 to 1.6. A room 16 by 12½ feet, with a 10-foot ceiling, has these proportions. An example of standing-wave frequency distribution for a room 12½ by 10 by 8 feet (same proportions) is given in Fig. 7. A notable improvement in resonant-frequency distribution can be seen.

Ideal proportions for a room, at least in the acoustic sense, can rarely be obtained except for relatively small rooms. In most practical circumstances the height is limited to 8 feet or less by the hard facts of economics.

Following the 1¼-ratio rule, the width must be 10 feet and the length must be 12½ feet—the room plotted in Fig. 7. The lowest standing-wave frequency is 45.2 cps; there are only two resonances below 70 cps, and only seven below 100 cps.

From the point of view of sound reproduction only, there are at least two disadvantages in a room this small. First, there is little or no reinforcement of very low frequencies. This is not to say that frequencies below 45 cps cannot be generated in the room; they can be. But a speaker system has a difficult enough job producing these very low frequencies under favorable conditions, and if the room itself is deficient in bass response, the problem is aggravated. The second disadvantage of a small room is the wide spread among the resonances below 100 cps. Even if they are well distributed, there simply aren't enough of them to provide an audibly smooth response in the 50- to 100-cps region, where most materials have little absorption and can provide little useful damping.

Since larger rooms are desirable, but ceilings over 8 feet high are rarely practical in homes, the 1¼-ratio rule cannot be adhered to strictly. Two satisfactory compromises can be made.

It is possible to multiply the actual height dimension by two in order to serve as a basis for calculation of the

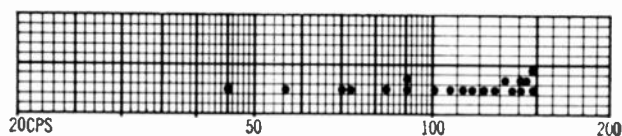


Fig. 7. A small room (12½ x 10 x 8 feet) can approach ideal proportions (see text), but since most resonances are above 80 cps, reinforcement of the lowest bass frequencies will be lacking.

width and length. This was done in designing Acoustic Research's audio demonstration room now being constructed in the Better Living Building at the 1964-1965 New York World's Fair. The actual inside dimensions are 27.5 by 21.75 by 8.7 feet. The height is just half what it should be ideally. Standing-wave frequencies up to 130 cps are plotted for this room in Fig. 8. The frequency distribution is quite respectable, although some gaps associated with the missing full height dimension are detectable.

As a second compromise, this procedure can be further modified by reducing the width slightly to compensate for the reduced height dimension. The room for which resonant frequencies up to 130 cps are plotted in Fig. 9 has dimensions of 25 by 17.5 by 7.75 feet. Ideally they should have been 25 by 20 by 15.5 feet, but the height was cut in half and the ratio of length to width was changed to 1.4 to 1. A good distribution below 90 cps was obtained at the expense of some clustering just above and below 100 cps. (Continued overleaf)

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If room surfaces and furnishings reflected sound energy perfectly, then any sound radiated into a room would continue to rebound and reverberate for a very long time—until it finally became dissipated as heat by the air itself. Fortunately, this doesn't happen in practical cases, because room surfaces and furnishings do in fact absorb some sound energy. When they do, there is a beneficial side effect: the room resonances become less acute. The standing-wave pressure maximums are reduced in intensity, and the nulls become merely locations of somewhat reduced pressure. In other words, the resonances are damped by absorption. As the absorption increases, each standing wave becomes less severe and its effect is spread over a wider frequency range; the sound pressure is spread more evenly throughout the room; the average pressure in the room, and therefore the average loudness, decreases; and the sound becomes more dead, less reverberant.

It should be evident that absorption (like many good things) can be carried to excess. Materials vary widely in absorption characteristics, however, and common

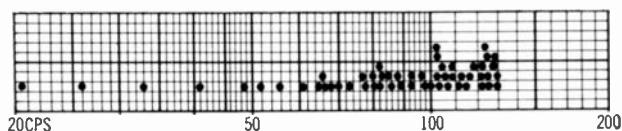


Fig. 8. Resonances show good distribution in Acoustic Research's 27 x 21 $\frac{3}{4}$ x 8.7-foot demonstration room being built in the Better Living Building at the 1964-1965 New York World's Fair.

materials used with common sense can be used to avert or to correct most undesirable acoustic conditions.

Room-resonance damping is controllable with moderate ease from, say, 100 cps upward. Normal construction materials, room furnishings, and wall and floor treatments will usually provide acceptable control. A room furnished in spartan contemporary manner, with few drapes, uncarpeted floors, and virtually no upholstered pieces cannot help but make music sound overly bright and hard. A room with wall-to-wall carpet, heavy drapes on much of the wall area, "acoustical" tile on the ceiling, and a lot of overstuffed furniture will make music sound as if every instrument were filled with cotton batting. In this matter the middle of the road is best.

Do not, for example, have two completely hard or two very absorptive walls opposite one another. If one wall is mostly wallpapered or painted plaster, the wall opposite should have a significant part of its area "soft"—well-draped windows, wall hangings, bookcases (with books) and so on. Avoid acoustic tile on the ceiling; ordinary plaster is fine if you intend to cover a

large part of the floor with area rugs. If you insist on tiled floors with no rugs, use Hushkote plaster or moderately soft (but not acoustic) tile on the ceiling. A mixture of hard-surfaced and upholstered furniture should be used, with the upholstered pieces placed near the hard walls if possible.

Hard, rigid surfaces in general have low absorption, while soft padded surfaces have relatively high absorption. Painted brick, ceramic tile, concrete, glass, wood flooring or polished solid wood, linoleum, and most floor tile all have low absorption at all frequencies. Unpainted brick has very low absorption at frequencies below 1,000 cps, but its absorption rises slightly at higher frequencies. Ordinary plaster and plasterboard have fairly low absorption at all frequencies.

Wood paneling of $\frac{3}{8}$ -inch thickness or less, with an air space (partition studding, for example) behind it is one of the few building materials that has high absorption at moderately low frequencies but low absorption at higher frequencies, and for that reason is often useful. Most materials behave in an opposite way: acoustic tile has extremely high absorption at 500 cps and higher, but its absorption decreases sharply below that frequency. This is a useful characteristic for noise reduction in offices and public areas, but gives an unnatural environment for music listening.

Rough-textured carpeting with underlining has absorption that is fairly low at 125 cps but rises gradually until it is quite high at 3,000 cps and above. Without underlining, the absorption is reduced by half. Soft drapes hung straight against the wall or covering a window are similar in effect to carpet without underlining. Lining the material with a double thickness makes it roughly equivalent to carpet with underlining. Hanging the drapes well away from the wall appreciably increases absorption at low frequencies.

Upholstered chairs and sofas have high absorption and, significantly, they remain quite effective down to

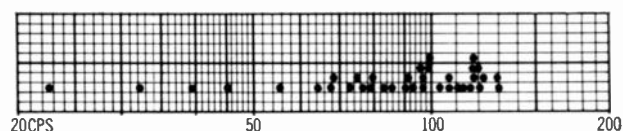


Fig. 9. A compromise room with proportions of 25 x 17 $\frac{1}{2}$ x 7 $\frac{3}{4}$ feet shows a good resonance distribution below 90 cps. There is, however, some resonance-clustering above and below 100 cps.

low frequencies. Open windows and doorways can be considered completely absorptive (since they reflect no sound at all) down to frequencies at which their dimensions are equal to or less than one wave length. For doors and windows of typical size this occurs at around 350 cps.

People also are efficient sound absorbers. They are most efficient in this capacity at about 2,000 cps, at

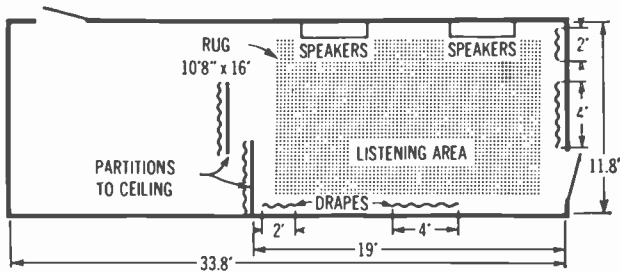


Fig. 10. Floor plan of AR's demonstration room in Grand Central Station. Here an existing structure was modified for the suppression of certain resonances and the reinforcement of others.

which frequency they are roughly the equivalent of small sofas; at 250 cps, however, they absorb no more than upholstered chairs.

Most materials have relatively low absorption below 100 cps. Accordingly, it is difficult to damp severe resonances in this frequency region. The most satisfactory answer, of course, is to avoid them by choosing proper dimensions for the room. If that isn't possible—or if the room is already built and you are stuck with it—it is often possible to build a false partition or a partial room divider to break up the worst resonance. Finally, you can place the speaker systems in locations where they simply will not stimulate an offending standing wave.

Standing-wave nulls may be formed at any location in the room except at the eight three-surface junctions where two walls come together with the floor or ceiling. If a speaker system is located at a minimum-pressure point for any particular standing wave, it cannot generate that frequency efficiently. It is necessary only to locate suitable minimum-pressure points for that frequency along a convenient wall and put the speaker systems there. These points can be found either by calculation (if the frequency and the room dimensions are known), or by using your ears as a detector.

Room walls themselves are not perfectly stiff. If they are too flexible they will flex when the room is excited at very low frequencies, and it will not be possible to build up good low-frequency response in the room. This is damping in a sense, but it is damping where it is not often needed. The objectionable resonances usually occur at frequencies above those at which wall, ceiling, or floor flexure is significant, with the result that the flexing can do harm but no compensating good.

Walls and ceilings can be made more stiff than is usual in common home construction, at relatively little expense, by specifying three or four coats of plaster instead of the usual two. Still more stiffness can be obtained by decreasing the normal spacing between floor and ceiling joists, and of wall studs; and by applying a layer of plywood to the joists or studs under the plaster lath. Walls constructed of brick, needless to say, are extremely rigid.

What can be done to amend the acoustic properties of an existing room? An excellent example is supplied by AR's Music Room on the west balcony of Grand Central Station in New York City. The structure as acquired was very long and narrow (see Fig. 10) and proved to be impossible for audio demonstrations. The room shape was changed by adding solid $\frac{3}{4}$ -inch wood semi-partitions, heavily braced with 2 x 4 studs, from floor to ceiling. Cork sheeting (with its peculiar absorption properties) was removed from the walls, which were then braced with closely-spaced 2 x 4 studs. Plywood and plasterboard were applied over the wall studding; this restored the missing low bass tones.

Other measures taken included plastering over an acoustic-tile ceiling, and replacement of the wall-to-wall carpeting with a rug which left some of the marble

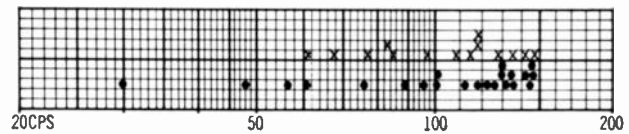


Fig. 11. Resonances plotted for the room shown in Fig. 10. The X's indicate potential resonances that have been suppressed by mounting the speakers at the room's standing-wave null points.

floor exposed. Drapes were hung on a trial-and-error basis until the best sound was obtained.

The modifications yielded a listening area of 19 by 11.8 feet, with a ceiling height of 9.3 feet. Resonant frequencies up to 150 cps are plotted for this room in Fig. 11. Note that the ceiling height is almost exactly half the room length, a coincidence that could have been troublesome. All standing waves associated with the fundamental height resonance are plotted in Fig. 11 as "X" marks. For all these standing waves there is a null at half the room height, and the speakers are located on the wall opposite the listening area at just about that height. Consequently these resonances are excited by the speakers to only a small degree; some potentially unpleasant resonant-frequency bunching is thereby avoided. (Even so, it was still found to be impossible to face the speakers into the long dimension of the room.)

All these changes together transformed a room with intolerable acoustic properties into one that is now generally conceded to be excellent. Comparable modifications were applied successfully also to the AR Music Room on Brattle Street in Cambridge, Massachusetts.

Roy Allison attended the University of Connecticut, has been the editor of several magazines in the electronics field, and has published many articles concerning high fidelity. For the past four years, Mr. Allison has been with Acoustic Research, Inc., first as chief engineer and presently as plant manager.

* **NOW**, FOR THE FIRST TIME
ANYWHERE,
 THE **TRUE,** UNVARNISHED,
 FEARLESS AND IMPARTIAL
FACTS ABOUT **Hi-Fi!**

By JIM WILDER



WHAT you are about to read are the *facts* about high fidelity, told in plain language by an expert who, because of the controversial nature of some of his disclosures, prefers to be known simply as the next President of the United States. Would you like to know what *really* to look for in an amplifier? Which of today's stereo components are the best? As you may have suspected, we experts have known the answers all along.

Q On a limited budget, which program source should I buy first: record player, tape recorder, or tuner?

A It all depends. Today's stereo records will give you sound with rich bass and sparkling highs. Tape, on the other hand, provides solid lows and silky highs. Stereo FM broadcasts offer resplendent lows and transparent highs. It's up to you to decide which of these means the most to *you*.

Q Why aren't the response curves for cartridges and speakers as good as those for amplifiers and tuners?

A There is no single reason. Cartridges and speakers are transducers, of course, and then there's the matter of parameters—always a limiting factor. But probably the big reason is that cartridge and speaker manufacturers don't know what they are doing.

Q Why do all my records—even brand-new ones—have pops and clicks on them?

A The problem, heretofore obscured by a lot of nonsense about static electricity, lies in your turntable or record changer. As soon as a record begins to revolve on the average grimy record player, the torsional forces propel the accumulated grit on the turntable up through the record. To understand this completely, simply take a clean LP and press it to your ear *before* putting it on your turntable. You will hear no annoying noise. *Only when you actually put the record on to play will the noise appear.*

Q I was listening to a Lawrence Welk show in stereo, and bubbles started coming out of my left speaker. Can you beat that for realism?

A Yes. The other night I was playing the "Dance of the Seven Veils," and it blew the grille cloth right off the speakers.

Q I keep seeing references to the Fletcher-Munson effect, but I don't understand what this means. Would you please explain?

A Certainly. Amalie Fletcher and Edna Munson were twin sisters who, after a deprived childhood in Sunnapee, New Hampshire, married the first men who came along. Their husbands hated each other on sight, and they permitted their wives to

meet only once a year at the general store in Sunnapee. On these occasions, the two sisters had so much to tell each other that their excited voices blotted each other's out. In 1953, a visiting anthropologist recognized the sisters' efforts as a primitive form of internodulation distortion, and after writing them up in a thesis for the Audio Engineering Society, he became their agent, took them on tour, and managed them to world-wide fame as Mike Nichols and Elaine May.

Q I've read that the human ear is the best of test instruments. But my own hearing starts to roll off at 10,000 cps and drops out almost completely at 13,000. Does this disqualify me as a judge of hi-fi equipment?

A Not necessarily. As you should know by now, frequency response is not everything. Before you lose hope, check the tone-burst response of both your ears, and plot their IM and harmonic-distortion curves. But don't expect too much. From your description, you sound like a shell of a man.

Q I'm very interested in high fidelity, but whenever I ask my husband a question about how our outfit works, or even just what constitutes high fidelity, he says, "It's too technical. You wouldn't understand what I'm talking about." As a last resort, I'm writing to you. Tell me, what is high fidelity?

A It's too technical. You wouldn't understand what I'm talking about.

Q How can I get rid of the hum in my stereo system?

A The important thing here is to trace the hum back to its source. It's easy. If you listen closely, you will notice the hum comes from your speaker. Replace it, and if the new speaker hums, try another.

Q I am a very rich doctor, and I can afford the best stereo components. Which are they?

A Mine. And since they are custom-made, you can't buy them on the open market. Hah!

Q Every time I build a kit, I take twice as long as the instructions say I'm supposed to. What can I do to cut my building time?

A The next time you build a kit, take all the wires, resistors, and capacitors and solder them together. Then solder the resulting mess to the chassis of the kit at two convenient points, wedge in any parts that are left over, and throw away the hardware. Repack the unit in its original carton and send it

back to the manufacturer, together with an irate note that says you have followed instructions to the letter and look what's happened. The foregoing should not take you more than two hours. Within a few days you should receive a new, perfectly wired unit from the manufacturer.

Q A friend has warned me about cold solder joints, but I'm not sure just what he is talking about. Precisely what is a cold solder joint?

A If you don't know already, you aren't old enough to know. When the time comes, you will probably find one in your own neighborhood.

Q I have a console radio-phonograph I bought for four hundred dollars in 1934. I'd like to convert it to a stereo hi-fi system. My friends all say I should scrap it and start from scratch; so do all the magazine articles I've read. What should I do?

A Ignore your friends and all those articles. Here's what to do. First, rework your old amplifier, adding a stage of voltage amplification, one of phase inversion (use the long-tailed-pair configuration), and a standard push-pull output arrangement. Do the same to a matching amplifier obtained from the Société Anonyme des Amplis Obsolètes, 15 Rue de Lancey, Paris (France). After designing a simple high-gain stereo preamp, update your old turntable mechanism (don't forget to modify the tone arm to track below one gram). Once you have converted your old AM radio to FM and added a stereo adapter, all you have to do is buy a modern stereo cartridge (building your own can be a bit tricky).

Q What's the best way to handle a neighbor who plays nothing but hillbilly music, at full volume, day and night?

A What do you have against hillbilly music? Snobs like you make me sick.

Q I've noticed that all my friends keep the tone controls on their amplifiers in the flat position. I find that I like to boost the bass a bit and cut the highs down once in a while. Is this okay?

A Look, Buster, if you want to play a game, abide by the rules. You'd better start learning right now that the world isn't your oyster.

Q I plan to put up an outside antenna for my FM tuner. Would you explain the advantages of using 72-ohm wire rather than 300-ohm wire?

A No.

THE SOUND OF THE WOODWINDS

A resurgence of interest in Baroque music is rallying the orchestra's dulcet pipes from their nineteenth-century eclipse

By Robert Clark



IT HAS at times occurred to me, when the lights go up after a concert evening and the orchestra files off the stage, that the sounds that have most beguiled me were not those of the strings, those orchestral beasts of burden; not the percussion, whose task is merely to punctuate the work of others; nor even the stern and sullen authority of the brasses. What I always seem to remember with most affection are the subtle and appealing triumphs of the woodwinds—the flutes, the oboes, the clarinets, the bassoons.

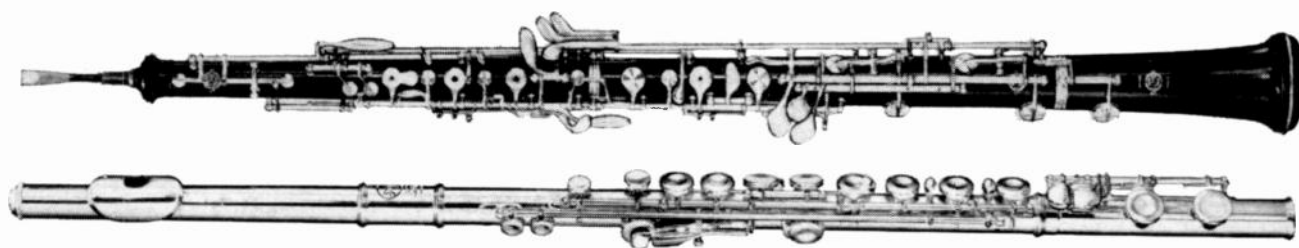
Woodwinds have existed in most of the world's cultures about which we know anything at all. Before 3,000 B.C. the Egyptians made music on a cane pipe that was rim-blown—that is, blown across the open end. In classical times the Greek *aulos* and the Roman *tibia* were the principal wind instruments. (It is no accident that this musical *tibia* bears the same name as the bone between the knee and ankle: legs of sheep and deer often made music after they had made dinner.) The *aulos* and the *tibia* were usually cane or wood pipes, sounded by reeds, and customarily played in pairs—the player held one pipe in each hand and sounded them simultaneously. These were urban instruments: in the countryside, shepherds were using the bagpipe and hornpipe to keep their flocks in order. Medieval times saw the development of many new varieties of woodwind instruments, including the recorder, an ancestor of the flute that in its modern form is enjoying a vogue of its own; the shawm, which, with the trumpet, heralded important medieval ceremonial events; and the flute-like “pipe.” The shawm, fore-

pipe became, in time, the prototypes of our present-day wind instruments.

From antiquity down to the present, the principles of woodwind instruments have been the same. All woodwinds are tubes, and the length of this tube determines the basic pitch of the instrument. To obtain a musical scale from this tube, holes are bored in it along its length. Cover all the holes, and you sound the basic pitch; uncover each hole successively, and the pitch becomes higher as the effective length of the tube from the player's mouth to the opened hole becomes shorter.

This rather simple description of woodwind-instrument design does not take into account two major problems of construction. First, the distance between the lowest and the uppermost holes on any of today's standard orchestral instruments is greater than anyone's fingers can stretch. This problem was solved in essence in 1832 by Theobald Boehm, a German flutist with the mind of an engineer. By Boehm's time it was the general practice to cover the holes with padded keys, and Boehm simply linked the keys together so that each finger controlled more than one.

The second problem is that the number of holes that can be drilled in any pipe is limited, so a way must be found to extend the number of tones an instrument can play beyond such limits. One method is called overblowing: notes higher than the basic scale are obtained simply by blowing harder into the mouthpiece. Because of the peculiar tone-producing characteristics of woodwinds, overblowing will raise the



The oboe (top) and the flute (bottom), although members of the same family, are very different in construction and tonal quality.

father of the oboe, was a staple of the early military band, and is probably the pipe in these lines from Chaucer's *Knight's Tale*:

... Pipes, trompes, nakers, clariounes,
That in the bataille blowne bloody sounes.

With the tabor (a small drum), the pipe provided music for dancing, and the two are still heard in the vineyards of Provence and northern Spain in the festive chain dances called *farandoles*. As the Renaissance gave rise to consort music, medieval instruments underwent adaptation and transformation, and the sixteenth century's inventions based upon the shawm and the

standard pitch by an octave in some instruments, and by a twelfth—an octave plus a fifth—in others. In addition, there is the speaker hole, bored at a strategic point in the tube—the oboe has two and the clarinet one. With speaker holes covered, the instrument sounds its standard pitch; when speaker holes are open, it sounds a higher pitch.

But though these principles are the same for all, the woodwinds' voices—their characteristic timbres—are quite distinctive. The tone of the flute, for example, is not at all like that of the clarinet in a similar range. There are three reasons for these differences in timbre. There are two kinds of woodwind bores, two shapes for

WOODWINDS

the columns in which the air vibrates to make sound: the clarinet and flute have cylindrical bores, the oboe and bassoon have conical bores. Second, timbre is affected by whether the pipe is open at both ends (as in the flute), or open at one end only (as in the other three standard instruments). Then, too, the different mouthpieces—the flute's embouchure, the clarinet's single reed, and the oboe's and bassoon's double reed—influence sound to some extent.

All these factors are significant to the ear because they bear on the harmonic or overtone content of the sounded tone. Harmonic or overtone content is the salt and pepper of musical tone. It creates the tonal personality of an instrument, telling us which one is playing—or (in the case of a wind instrument not considered here) who is singing.

When a woodwind player blows into the mouthpiece of his instrument, he sets the column of air in the tube into vibration, producing a fundamental pitch. But in addition to the vibration of the column as a whole, shorter component lengths of the column—the half-length, third-length, and so forth—vibrate as independent units, and produce tones of their own, higher than the fundamental pitch, called overtones or harmonics. In musical terms, these overtones form an orderly row: the first is an octave above the fundamental, the second a fifth above that, the third an octave above the first, and so on. Seldom are the overtones distinct to the listening ear; rather they give the fundamental tone its peculiar coloring. Among orchestral woodwinds, the flute is unique because the fundamental pitch supplies the greatest portion of any tone—there is very little harmonic content. In clarinets, the odd-numbered overtones are almost entirely absent. The tones of oboes and bassoons are rich in harmonics.

The subfamily of "flue" instruments—the flute, piccolo, fife, flageolet, and recorder—differs from the other woodwinds in a fundamental way: the nature of the mouthpiece. In all the instruments of this subfamily the jet of air from the player's mouth is directed

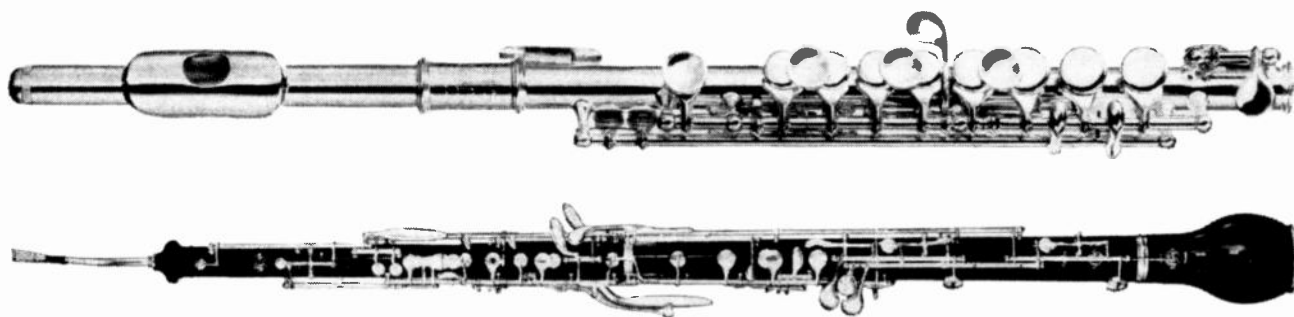
at the edge of a hole cut in the tube. Some of the air goes over the hole, but some of it strikes the edge, creating eddies, which in turn set the column of air inside the tube into vibration. This system of exciting the column of air distinguishes the flue instruments from the other standard woodwinds, all of which employ a reed at the mouthpiece.

The oldest member of the flue family still in use, the recorder, was already being heard and enjoyed in twelfth-century England—in fact, one of the instrument's many names through the ages was the "English flute." Probably the earliest trace of the name "recorder" is found in the household accounts of the Earl of Derby, later Henry IV, in 1388: "*i fistula nomine Ricordo*" ("a flute called a keepsake") probably given to Derby by an Italian nobleman. Henry VIII was obviously warmly disposed toward the recorder, for an extant inventory of his musical collection lists forty recorders, most of them in sets, as was then the custom. During England's turbulent early seventeenth century, the recorder, together with all music except the hymn, took a back seat to violent politics, but by 1684 it had come back into its own again. Londoners could buy John Carr's book of "choice new lessons for the recorder or flute." In the preface, Carr says:

This Delightful Companion the Pipe Recorder hath been for a long time out of use, but now it's beginning to be in a greater repute than ever it was before, and indeed there is no music for so natural a voice. It admits of excellent harmony on consort of 2 or 3 parts.

The recorder was equally familiar to the Renaissance men of continental Europe, where, because of its beak-shaped mouthpiece, it was known as the *flute à bec* in France and the *Schnabelflöte* in Germany. (Italians knew it as the *flauto dolce* because of its delicate tones.) But the recorder is rather muted in its general sound quality and limited in dynamic range. It belonged to the era of musical formality and level "terrace" dynamics. As the eighteenth century opened, courtly audiences began to demand instruments capable of tonal nuances and a wider range of dynamics. The flute filled the bill and soon displaced the recorder.

As anyone who has ever seen both instruments played

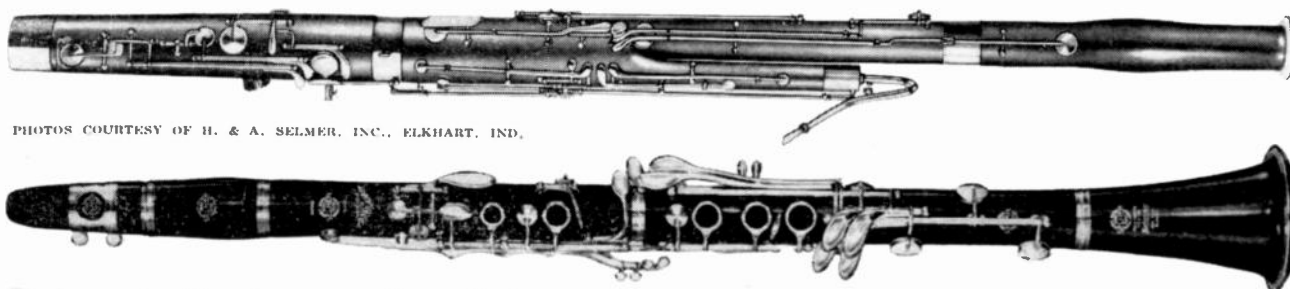


"Piccolo" (top) means "small" in Italian—which it is. But the English horn (bottom), despite its name, is neither English nor a horn.

will know, the differences between the flute and the recorder are not limited to sound. The recorder is played like an ordinary whistle, from the upper end, through a mouthpiece (called a fipple) that directs the jet of air toward the sounding edge. The flute is held horizontally, the mouthpiece resting just below the player's lower lip, and he blows toward the far edge of the hole cut into the tube.

Flutists largely agree that the best flutes are made in Boston. In the seventeenth century the flute was usually made of boxwood, but in the middle of the nineteenth century, about the time Boehm patented

What we now call the oboe (from the French *hautbois*, meaning high or loud wood) first appeared at the court of Louis XIV about 1660 when French wind-instrument makers constructed a shawm with reduced pungency of tone for the court orchestra. The oboe gradually triumphed over its older cousin in outdoor music, and established itself in France's military bands. As the instrument's fame spread, the Italian name "oboe" gradually displaced the French form and the English variant "hoboy." The oboe at first doubled the orchestra's violins for clear articulation of melodic lines, but by the third decade of the eight-



PHOTOS COURTESY OF H. & A. SELMER, INC., ELKHART, IND.

The bassoon (top) is an instrument rather too big for our pages; its actual size is approximately twice that of the clarinet (bottom).

his keying system, the flute began to be made of silver. Today most of the flutes in French and American orchestras are made of silver, but the wooden flute is often preferred by British instrumentalists. Flutes have been made of gold and of platinum, but the difference between a silver and a platinum flute matters more to the player's bank balance than to the listener's ear.

In the other major woodwind instruments of the present and the past—the clarinet, oboe, saxophone, bassoon, bagpipe, and shawm—a reed excites the air column by vibrating in the jet of air from the player's mouth. The reed is a thin slice of vegetable cane so important to proper instrumental tone that the devoted player scrapes and shaves and soaks it and generally treats it with tender loving care before, during, and after playing. The single reed of the clarinet and saxophone is clamped to a mouthpiece; the double reed of the oboe and bassoon forms a mouthpiece itself. The vibration of the reed sets the air column in the instrument's slender cylinder or cone into vibration, producing the sound. Reed tone, as contrasted to that of flue instruments, is rich in harmonics.

THE LEADING wind instrument of the high Renaissance was the shawm, a double-reed instrument still heard in folk music around Barcelona and elsewhere. During the shawm's heyday, when it came in all sizes and ranges, the larger and lower-pitched ones were dubbed bombard or pommers to distinguish them from their smaller and higher-pitched brethren. From the high shawm came the oboe, and from the bombard came the bassoon.

century, when Giuseppe Sammartini, who was an oboe virtuoso as well as a composer, was making his sensational London appearances, the oboe had gained full independence as a solo instrument in all ensembles.

Through the long history of the oboe as an orchestral instrument, few composing and playing generations have been satisfied with only one variety. And so a whole flock of oboes has come into existence—pitched slightly higher or lower, with a peculiarity of shape or of tone or some other distinctive feature. (The same thing has happened to the other three standard instruments.) We know from the Christmas Oratorio, the Passions, and other compositions, that Bach liked the sound of the *oboe d'amore*, which is pitched a minor third below the oboe proper and has a deeper, warmer tone. It was revived for Bach performances in 1874 by Charles Mahillon of Brussels, a noted oboe-maker and collector of sixteenth-century wind and string instruments. A tenor oboe, pitched in F, and in Bach's time called an *oboe da caccia* ("of the hunt"), was often curved like a bow. In its development it underwent a straightening and acquired a globular bell like that of the *oboe d'amore*. In this new form, it became known as the *cor anglais*, or English horn, though it is neither English nor a horn. Trying to explain this peculiar name, one authority speculates that the resemblance of the curved *oboe da caccia* to the English semicircular hunting horn is responsible. Others think the name a corruption of the French *cor anglé*, the angle being the bent pipe that holds the mouthpiece at the upper end. Since the mid-nineteenth century, composers have written solos for the English horn fre-

WOODWINDS

quently. In *Musical Instruments through the Ages*, James Macgillivray relates this sidelight on the *oboe da caccia's* transfiguration :

A well-known London player of the 1920's obtained a virtual monopoly of Bach engagements by having a flared bell made for his *cor anglais*, which he affixed in a quiet corner of the bandroom before playing "oboe da caccia." When asked point-blank by a conductor the difference between the two instruments, he replied: "Five guineas a concert."

There is a baritone oboe, pitched an octave lower than the standard instrument, as well as a variant named the heckelphone (after Wilhelm Heckel, who invented it in 1904), but both are rare.

The bass instrument of the woodwind family is the bassoon, an expensive array of plumbing and wood (commonly maple or rosewood) that is a compromise between the dimensions necessary to its pitch and the limits to which human hands can stretch. To get the necessary length, the bassoon goes down to the floor, makes a U-turn, and shoots up again past the mouth-piece into the air to make the red-brown "chimney" so easily seen from a seat in the concert hall. The two parallel bores are bound together, rather like firewood, from which resemblance the bassoon got its German name *Fagott*. The player holds it somewhat as he would a shotgun if he were looking for a prowler—almost side-saddle. It established its place in seventeenth-century orchestras as a workhorse that doubled the oboes in the bass.

In the eighteenth century the bassoon was a favorite solo instrument—it outstripped its natural low-pitched rival the cello—and it was also a prominent contributor to *sinfonie concertanti*. A modern variant is the contrabassoon, to woodwinds what the double bass is to strings—it plays an octave lower than the standard instrument. The sarrusophone, a distant relative, has a double reed but is made of metal. Its tone is particularly suitable for outdoor music, so it has become a staple military-band instrument, although in Spain it is sometimes found in symphony orchestras.

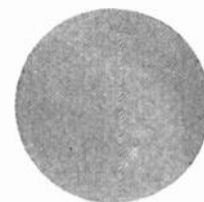
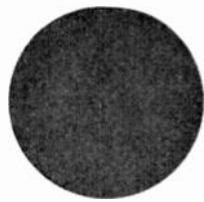
The youngest of the reeds, the clarinet, emerged in the form we know it today when J. C. Denner of Nuremberg made some basic improvements on an ancient instrument in the early eighteenth century. At first it was considered a cheap substitute for the clarino, the valveless high trumpet of the seventeenth and eighteenth centuries—it could sound such trumpet parts with ease, although with what Sir Donald Tovey called a "vinegar" tone. Gluck, Mozart, and other composers used the clarinet often in the manner of a continuo, since it was pitched more comfortably

than the bassoon and was not as limited as the valveless horn. But Mozart also sensed the full possibilities of the clarinet—his concerto for the instrument is one proof. He brings on the three masqueraders at the end of the first act of *Don Giovanni* with the clarinet's coldly mysterious, almost cavernous low register, called *chalumeau* (the word is cognate with shawm).

The clarinet is commonly made of African blackwood. Superficially, it resembles the oboe: it is a simple straight pipe with a slight flare or bell at the lower end. Internally, however, it is quite different. The oboe is conical, the clarinet cylindrical in bore. The standard orchestral clarinet is pitched in B-flat and has a remarkably wide compass, from D below middle C to B-flat nearly three octaves above middle C—and some skilled players can soar even higher. It has a close relative with a colorful background: the basset horn, which, despite its name, is a tenor clarinet in F. Although George Bernard Shaw took it as his critical pseudonym (Corno di Bassetto), he called it wretched, just the thing for funerals, and said that the only reason for its continued existence was that Mozart had scored for it in his Requiem.

THE WOODWIND has a remarkably adaptable personality: musical history shows it equally at home indoors and out, in chamber music or band. In the eighteenth century a large segment of the cultivated European nobility and gentry were amateur woodwind players—the highest-born of them probably being Frederick the Great of Prussia, who performed and composed for the flute. The comedy and drama of that enlightened time was played out to the accompaniment of woodwinds—on streets and in gardens they were the mainstays of cassations, serenades, and *sinfonie concertanti*, and in the salons of princes secular and ecclesiastical they were discreet participants in sonatas, concertos, and suites. Woodwinds suffered a partial eclipse during the nineteenth century. The piano conquered the bourgeois parlor, and, together with the violin, the chamber-music hall as well. In the orchestra, which was afflicted with a steadily worsening case of elephantiasis about the time of Berlioz, the woodwind sound was usually drowned in the torrents of strings and brasses. But in our century the gentle and gentlemanly winds seem to have quietly asserted themselves again. Debussy, Ravel, and Stravinsky all enlisted in their behalf—Stravinsky's Octet for Wind Instruments is a landmark in the woodwinds' modern rally—and a revived interest in the Baroque composers moved the wind soloist up front again. The woodwinds—both their pungent solo voices and the acrid sonorities of their ensemble sound—are again in command, and likely will remain so for some time to come.

BEST OF THE MONTH



DUPARC ART SONGS IN A DEFINITIVE PRESENTATION

Gérard Souzay is unexcelled in unique works by a unique composer

AS GÉRARD SOUZAY points out in the liner notes for this definitive recording (on the Philips label) of the art songs of Henri Duparc, the curious mixture of influences in the music itself, and the all but legendary details of the composer's career together make this collection of songs one of the more astonishing phenomena of nineteenth-century French music.



NEW YORK PUBLIC LIBRARY

HENRI DUPARC
Sixteen remarkable songs

We know, for example, that in 1884, with the completion of *La Vie Antérieure*, Duparc (then only thirty-six years old) stopped composing. Nor, as far as is known, did he ever compose again, even though he lived to eighty-five. Chronic illness took its toll, but even more than that, as Mr. Souzay notes, he seems to have been overcome by a kind of creative impotence. Except for some mostly appalling short orchestral pieces, his sixteen master songs (the present disc contains twelve) constitute this remarkably gifted composer's principal contribution to the world of music.

But putting aside the curiosities of Duparc's career itself, we find, in turning to the music, more anomalies. Duparc was strongly influenced by Wagner and Franck—or perhaps it would be more exact to say that he was influenced by Franck and obsessed by Wagner. One smiles at the first few bars of *Extase*, for example: the subject matter of the poem and the baldly *Tristan*-esque origins of the musical ideas would be at best merely disarming, were it not for the unmistakable French flavor that penetrates the song, transporting us, in a split second, far from Bayreuth.

Stylistic evocations abound in these songs. *Le Manoir de Rosamonde* brings to mind Schubert, while *La Vie Antérieure*, *L'Invitation*

(continued overleaf)





GÉRARD SOUZAY AND DALTON BALDWIN
An ensemble scarcely to be improved upon

au Voyage, and (in large part) *Phidylé* evoke Impressionism so powerfully that one is left wondering over their early composition dates (1868-1884). Yet despite all the influences, despite their lack of sophistication, they remain unique. Along with Debussy and Fauré—and possibly the late Francis Poulenc—Duparc stands with the best France has produced in the art-song medium.

As suggested earlier, I can conceive of no better performance of this music than Gérard Souzay's here. This music *can* lapse into sentimentality—make no mistake about that. Yet Souzay manages not only to avoid this lapse, but does so without seeming even to have taken note of the danger. There is none of the restraint, the calculated understatement, the holding back that one finds in, say, Maggie Teyte's interpretations of these songs. With Souzay, all the stops are out, yet the line beyond which lies mawkish excess is never crossed. It is a remarkable job of singing, and Dalton Baldwin is an admirable partner.

The recorded sound is entirely satisfactory—restrained, clean, and appropriate. The release is one that no lover of serious vocal music can afford to overlook.

William Flanagan

© © DUPARC: *Songs. L'Invitation au Voyage; Sérénade Florentine; La Vague et La Cloche; Extase; Le Manoir de Rosamonde; Lamento; La Vie Antérieure; Testament; Phidylé; Chanson Triste; Élégie; Soupir.* Gérard Souzay (baritone), Dalton Baldwin (piano). PHILIPS PHS 900027 \$5.98, PHM 500027* \$4.98.

BACH'S COMPLETE ORGAN WORKS REVISITED

*Helmut Walcha discloses
 overwhelming drama and power*

GERMAN organist Helmut Walcha began recording Bach's complete organ works in 1947. A set of eighteen records was released in the U. S. by Archive in 1955, to which was added a few years later Walcha's recording of the *Art of the Fugue*. These discs were justifiably—and almost unanimously—hailed as being among the best of their kind.

Walcha is now in the process of rerecording these works in stereo for Archive, and the latest two volumes once again reveal the organist's supreme understanding of Bach, his unerring rightness of registration, his rock-steady technique, and his ability to present the music with drive and brilliance. The two fine old German organs used in the older records have been abandoned in favor of an equally splendid Baroque instrument, with more spacious acoustic surroundings, in Alkmaar, Holland. The performer's interpretations, aside from the obvious advantage of more up-to-date sound, are by and large identical with his older performances, but in at least one case, the *Fantasia and Fugue in G Minor*, Walcha has altered some details, notably in subtleties of articulation. The previous version was a splendid performance; the new one, for sheer drama and power, is overwhelming.

Two of the remade pieces, the familiar D Minor Toccata and the C Major Toccata, Adagio, and Fugue, were released a few years ago by Deutsche Grammophon on Archive ARC 73124/3124 (with two trio sonatas and a C Major Prelude and Fugue) and DGG 138119/18619 (plus a choral partita and several chorale preludes). These were recorded in 1956, but it is difficult to distinguish any sonic differences between them and the remaining items, made in 1962. The coupling, one disc comprising toccatas, the other fantasias plus the passacaglia, is also more logical here, but the duplication between the four records and the possible confusion for the collector is a little unfortunate.

However, I cannot praise these two records highly enough. Anyone interested in Bach owes it to himself to hear Walcha's performances. Rarely does one have an opportunity to hear the



HELMUT WALCHA
A master of the tradition

organ played by such a master of the grand Lutheran tradition.

Igor Kipnis

⑤ ⑥ BACH: *Tocatta and Fugue, in D Minor; Tocatta and Fugue, in F Major; Tocatta and Fugue, in D Minor ("Dorian"); Tocatta, Adagio, and Fugue, in C Major.* Helmut Walcha (organ of St. Laurenskerk, Alkmaar, Holland). DGG ARCHIVE ARC 73204 \$6.98, ARC 3204* \$5.98.

⑤ ⑥ BACH: *Fantasia and Fugue, in G Minor; Fantasia and Fugue, in C Minor; Fantasia, in G Major; Fantasia, in C Minor; Passacaglia and Fugue, in C Minor.* Helmut Walcha (organ of St. Laurenskerk, Alkmaar, Holland). DGG ARCHIVE ARC 73205 \$6.98, ARC 3205* \$5.98.

A GREAT DAY FOR LIEDER: ANOTHER SCHWANENGESANG

Hermann Prey is compelling in a youthful and exuberant performance

TWO MONTHS ago in these pages I gave an enthusiastic and virtually unqualified endorsement to Dietrich Fischer-Dieskau's Angel recording of Schubert's *Schwanengesang*. I must now do the same for Hermann Prey's new recording of this lovely song cycle for London Records. A great age has indeed dawned for lieder singing when two performers of this caliber compete for the listener's preference.

Of the two, Fischer-Dieskau is the older (all of thirty-eight!) and more experienced artist, with a more precise command over his vocal resources and a more magnetic hold on his audience. Prey, on the other hand, has vocal means that are richer by nature's gift, the kind that require less manipulative skill to attain the same, or nearly the same, effect. There is also a youthful exuberance in his singing that is most appealing: it is a quality particularly appropriate in



HERMANN PREY
A vocal instrument of rare beauty

such effusive songs as *Liebesbotschaft*, *Abschied*, and *Frühlingssehnsucht*.

Prey cannot as yet quite match the gripping force of Fischer-Dieskau's *Der Atlas* or the evocative power of his *Die Stadt*, but the differences between the two renditions are a matter of nuance and, perhaps, personal preference. Prey captures the chilling bleakness of *Die Stadt* with great insight, but Fischer-Dieskau has more control over the song's emotional tide as it rises to the powerful concluding line. Prey, on the other hand, has a distinct edge in his flowing, unmannered *Ständchen* and in his grimly powerful *Aufenthalt*. His voice is an instrument of rare beauty—warm, vibrant, and flexible, used with manly vigor and communicativeness.

Walter Klien's excellent collaboration is somewhat handicapped by an overly resonant sound that occasionally blurs his accompaniments. The recording is in general good, but not quite London's best: very high-level and apparently aiming for powerful effects where they are not needed.

George Jellinek

© ® SCHUBERT: *Schwanengesang*. Hermann Prey (baritone), Walter Klien (piano). LONDON OS 25797 \$5.98, 5797* \$4.98.

CARMEN MCRAE: A MYSTERY SOLVED

*A distinctive jazz artist
is finally captured on discs*

AMONG THE jazz mysteries of recent years has been the reason for the inability of any record company to capture on discs the considerable artistry of Carmen McRae. In night clubs, Miss McRae has long excelled her singing contemporaries in emotional depth, intelligence, and rhythmic subtlety. On records, however, her seemingly casual wizardry has been only occasionally evident. Now, for the first time, the full presence of Carmen McRae can be heard on Time Records' "Carmen McRae Live at Sugar Hill in San Francisco." Time solved the problem simply by recording Miss McRae in her natural habitat, the night club.

In quality of mind and intensity of feeling, Carmen McRae can be compared to the late Billie Holiday. She is not yet Miss Holiday's equal, but she is nonetheless the best female jazz singer now working. Miss McRae not only feels

deeply, but she can communicate her emotions with power and grace. Her beat is unusually flexible, and because she is also a woman of wit, she can play with the rhythm to develop additional nuances. Her agile handling of musical textures further intensifies and broadens her expressive gifts.

Miss McRae is obviously quite at ease in this recording, singing as she would on an evening when tape recorders are not a part of the audience. Her trio is also fully relaxed, and while pianist Norman Simmons is a rather brittle soloist, he is an accurate and encouraging accompanist. The most remarkable instrumentalist here, however, is bassist Victor Sproles, whose clarity and freshness of line behind the singer ought to be studied by any bassist who is called on to work with a vocalist. Familiarity with Carmen McRae's mesmeric singing skills is no longer limited to those who can get to hear her in night clubs. Her art has finally been adequately documented on records.

Nat Hentoff

© ® CARMEN MCRAE: *Live at Sugar Hill in San Francisco*. Carmen McRae (vocals), Norman Simmons (piano), Victor Sproles (bass), Stewart Martin (drums). *Sunday: I Didn't Know What Time It Was; Thou Swell; Make Someone Happy; What Kind of Fool Am I; A Foggy Day; I Left My Heart in San Francisco; Let There Be Love; This is All I Ask; It Never Entered My Mind*. TIME S 2104 \$5.98, 2104* \$3.98.



CARMEN MCRAE
A commanding way with a ballad

TIME RECORDS



When Victoria de los Angeles was a little girl her uncle gave her a guitar because she loved to make music. The delighted youngster took it with her whenever she went with her father on his rounds as caretaker at the University of Barcelona. Up and down the halls of the great university she would tag along, playing and singing as she went.

And a strange thing began to happen. Wherever her clear and youthful voice was heard students would stop what they were doing to listen. Finally the university professors had to issue an edict: the little girl must not sing during lectures. They could not compete with her for their students' attention. But they were wise enough to realize they had heard a voice of great promise. A group united to send the little girl to the Conservatorio del Liceo for training.

The career so launched has culminated in garlands of praise from critics the world over. The New York *Herald Tribune* has called Victoria de los Angeles "a vocal delight unique in our time." The London *Times* terms her "a paragon with all the virtues." To the *Washington Post*, she is "one of the world's greatest artists!"

Today the voice that stopped classes at the University of Barcelona can be heard on many fine Angel recordings. Her *Carmen*, *Madame Butterfly*, *Faust* and many other roles are available in both complete opera and Opera Highlights recordings. And her aficionados will want to hear and own *Twentieth Century Spanish Songs* and *Spanish Song of the Renaissance*.

The little Spanish girl still loves to make music. And people still stop what they are doing to listen.



As Violetta in *La Traviata*

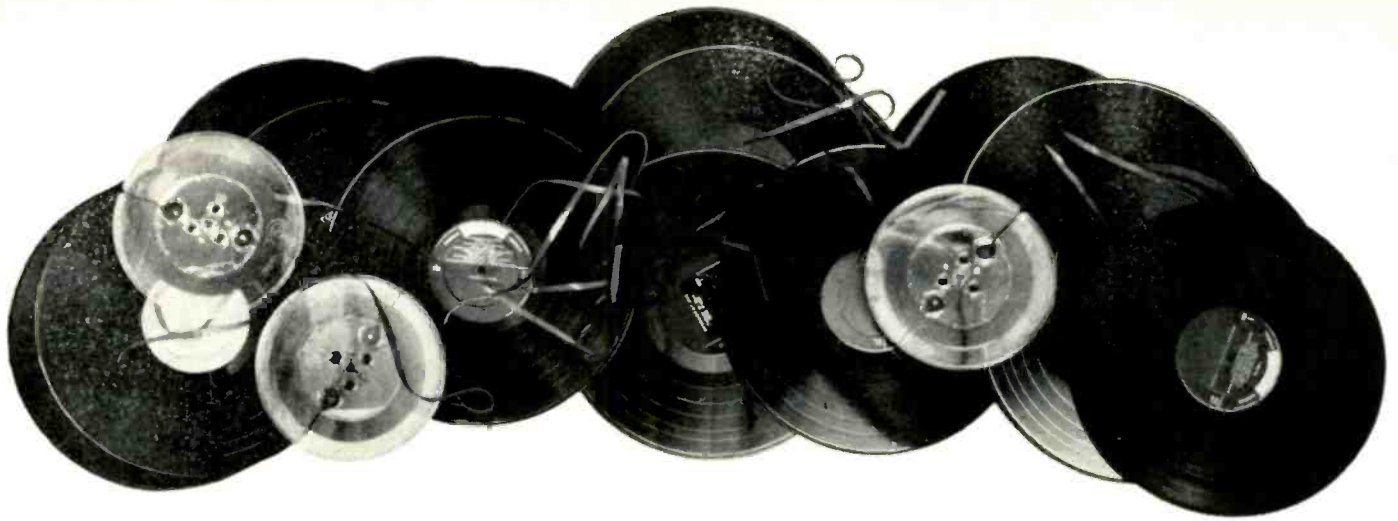


As Manon in *Manon*

THERE IS ONLY ONE
**VICTORIA DE
LOS ANGELES**



As Cio-Cio-San in
Madame Butterfly



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HIFI/STEREO REVIEW'S CHOICE OF THE LATEST RECORDINGS

CLASSICAL

Reviewed by WILLIAM FLANAGAN • DAVID HALL • GEORGE JELLINEK • IGOR KIPNIS

Ⓢ Ⓜ BACH: *St. Matthew Passion* (abridged). David Lloyd (tenor), Evangelist; William Wildermann (bass), Jesus; Donald Bell (bass-baritone), Judas, Peter, and Pilate; Adele Addison (soprano); Betty Allen (mezzo-soprano); Charles Bressler (tenor); Collegiate Chorale, Abraham Kaplan director. Boys' Choir of the Little Church Around the Corner, Stuart Gardner directing; New York Philharmonic Orchestra, Leonard Bernstein cond. COLUMBIA M3S 692 three 12-inch discs and one 7-inch disc \$17.94, M3L 292 \$14.94.

Interest: Bernstein's Passion
Performance: Pseudo-dramatic uncton
Recording: Full-blown
Stereo Quality: Advantageous

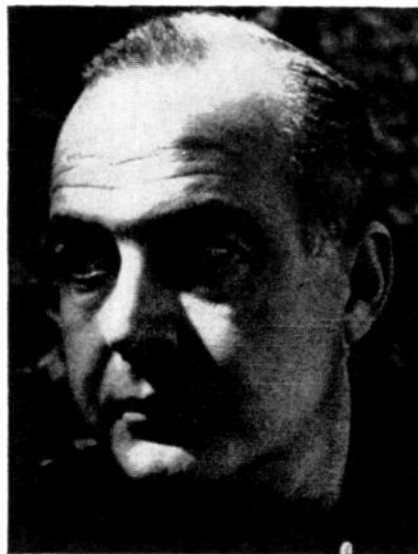
For those who must have Bach sold to them via a preliminary pep-talk on a seven-inch disc, and who require the dramatic trappings of a full-scale operatic production, I suppose Leonard Bernstein's performance will do, and it may win some new converts to the work. To say that this recording's massive "Greek tragedy" (to quote Bernstein) has anything to do with the Christianity of Bach or of anybody else, however, would be an outright fib. Patting God solicitously on the head, as the conductor does both in his talk and through his musical interpretation, is no service to Lutheranism, eighteenth-century or contemporary.

The air is heavy with piety throughout the six sides, but the intense drama of the Passion story is only sporadically gleaned: sometimes in the angry choruses, the moments of extreme stress, and the earthquake. For the rest, Bernstein's chorales ooze syrupy sentimentality, his recitatives are even but quite monotonous statements of fact, and his opening and closing choruses belong to the neon-lit realm of Cinerama.

The vocal soloists are unexceptional: Betty Allen alone expresses in her arias a genuine feeling of identification with

the spiritual essence of the work. The orchestra, given the conductor's non-stylistic framework, does its work cleanly and accurately, and the Collegiate Chorale enunciates the English translation, borrowed for the most part from Schirmer, with commendable clarity. The cuts are mainly portions of recitatives, sometimes with chorus, as well as Nos. 6-13, 37-46, 49-52, 55, 61, and 64-66 in the Schirmer vocal score. The text is enclosed in a nicely illustrated booklet, and the sound, barring constricted side-ends, is clean and full-bodied, perhaps richer in mono than in stereo. The double choruses are effectively separated in the latter.

I. K.



COLUMBIA RECORDS

SAMUEL BARBER

A classicist despite his lyrical intensity

BARBER: *Andromache's Farewell* (see SCHUMANN)

Ⓢ Ⓜ BARBER: *Violin Concerto, Op. 14*. DELIUS: *Violin Concerto*. Robert Gerle (violin); Vienna State Opera Orchestra, Robert Zeller cond. WESTMINSTER WST 17045 \$4.98, XWN 19045 \$4.98.

Interest: Twentieth-century lyricists
Performance: Proficient
Recording: Close and clear
Stereo Quality: Good

Westminster deserves to be credited with

real inspiration in pairing these two twentieth-century violin concertos, for they have as their common denominator a highly personal lyricism. Even the main themes of the first movements show a curious similarity of contour. In musical procedure, however, the British impressionist master and the gifted American part company. For all the lyrical intensity of his musical language, Samuel Barber is a classicist who insists on clearly defined and well-proportioned structure, but Delius—employing what might be called a "variations-by-association" technique—gives us no concerto in the classical sense, but rather an exquisite, long-drawn-out fantasy of bitterness.

The Delius had not been available in LP form on these shores until a few copies of the 1946 Jean Pougnet-Sir Thomas Beecham performance, transferred from 78's, came to this country through the recently initiated Capitol-EMI import program. For my taste, the work is by far the most successful of any by Delius in a traditional form. Gerle and Zeller play the piece with great incisiveness and zest, but for poetic values the Pougnet-Beecham performance has the edge, and its sound remains surprisingly good. Furthermore, Westminster has chosen to record the Delius concerto in dual perspective, so that soloist and orchestra never seem sonically integrated. Thus, instead of emerging from and dropping back into the orchestral fabric, Gerle's violin constantly stands out, occasionally in an obtrusive and wiry way.

As for the Barber concerto, the work was written so as to put the soloist in high relief. Again, Gerle and Zeller serve the music well, reaching a brilliant peak in the finale. I listened to the CRI mono disc recorded in Japan some years ago by Wolfgang Stavonhagen and William Strickland, and was frankly surprised to find that it stands up well against this new Westminster version, both in sound and in performance.

If I were a listener interested in acquiring the works, I would choose the Westminster if stereo were the prime consideration. But my own preference is the Pougnet-Beecham import of the Delius. As for the Barber concerto, the choice is between the taut reading of Gerle and Zeller and the more relaxed

Explanation of symbols:

- Ⓢ = stereophonic recording
- Ⓜ = monophonic recording
- * = mono or stereo version not received for review

and songful collaboration of Stavonhagen and Strickland. *D. H.*

Ⓢ Ⓜ **BEETHOVEN: Piano Concerto No. 1, in G Major, Op. 58.** Van Cliburn (piano); Chicago Symphony Orchestra, Fritz Reiner cond. RCA Victor LSC 2680 \$5.98, LM 2680* \$4.98.

Interest: Beethoven's finest concerto
Performance: Thoughtful
Recording: Just
Stereo Quality: Good

Together with the violin concerto and the Fourth Symphony, Beethoven's G Major Piano Concerto offers the shape-liest large-scale synthesis of the lyrical and dramatic aspects of his musical language. For this reason, and because—like the Schumann piano concerto—it offers



RCA VICTOR RECORDS

VAN CLIBURN

Care, finesse, and a singing quality

so few opportunities for the display of what Virgil Thomson has called the "wow" technique, the Beethoven G Major has always been an elusive work to communicate in all its fullness, subtlety, and beauty. Schnabel knew how, as his recently reissued recording attests, and certainly Fleisher and Szell in their stereo recording for Epic come very close to this standard.

To judge from this newest recorded performance of the G Major Concerto with Fritz Reiner as collaborator, Van Cliburn could come within striking distance of the ideal reading in a matter of a few years. For there can be no doubt that this recorded performance has been prepared in the most careful and minute detail, with particular emphasis on finesse of phrasing and dynamics, and the achievement of a singing quality on the part of soloist and orchestra alike. Perhaps thought and preparation, how-

ever, have been excessive—to the point that the finished performance as recorded here lacks spontaneous flow. I am aware of a wealth of lovely detail throughout the long first movement, but not the sense of flow found in the Fleisher-Szell reading.

All told, I would call this recorded performance an almost-but-not-quite proposition. It is certainly the preferred stereo version after that of the Fleisher-Szell team, which remains well in the lead. The recorded sound is first-rate: plenty of presence and tonal solidity, yet enough reverberation to provide desirable warmth for soloist and orchestra alike. *D. H.*

BEETHOVEN: Complete Piano Sonatas (see page 80)

Ⓢ Ⓜ **BEETHOVEN: Symphony No. 5, in C Minor, Op. 67.** New York Philharmonic, Leonard Bernstein cond. Columbia MS 6468 \$5.98, ML 5868 \$4.98.

Interest: The Beethoven symphony
Performance: Majestic
Recording: Too spacious
Stereo Quality: Adequate

Although Leonard Bernstein's justly celebrated 1954 TV discussion of the first movement of Beethoven's Fifth Symphony—included on a 7-inch LP as a bonus here—has been available for a good many years with the Bruno Walter-New York Philharmonic mono performance (CL 918), it was only this past year that Bernstein himself chose to record the work. Very wisely, Columbia includes the Bernstein discussion, and it still stands as a model of this kind of thing.

As to Bernstein's musical views of this most-often-recorded and -played of the Beethoven symphonies, they are genuinely interesting and absorbing, departing in some respects from tradition, but without lapsing into the cuteness or vulgarization that have marred some others of his recent discs. In general, the Bernstein reading is a close relative of the pre-war Furtwängler-Berlin Philharmonic interpretation of twenty-five years ago, which is to say that Bernstein stresses spaciousness, majesty, and lyrical flow rather than drive and ferocity. Thus his statement of the opening four notes is deliberate (like Furtwängler) rather than peremptory, as in the Toscanini—and the more recent Karajan—manner. Particularly fascinating is the Bernstein way with the slow movement, in which he takes special care to bring out inner voices that get lost in most performances. It should be noted that, as in many of today's recorded performances, the exposition of the first movement is repeated. But in addition—and to very good effect—the exposition of the last movement is repeated as well,

(Continued on page 74)

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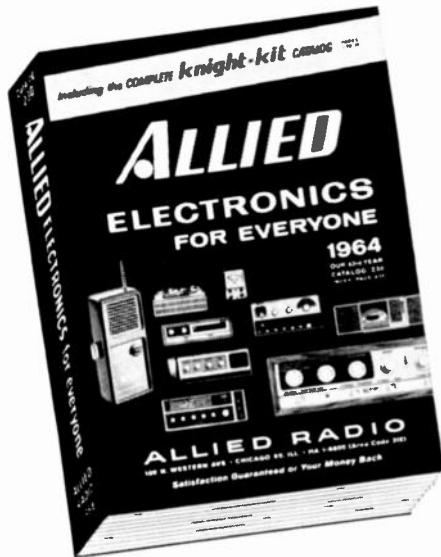
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thus enhancing the work's expansiveness.

The only unhappy aspect of this disc is its sound, for the engineering staff seems to have let the Bernstein spaciousness go so much to their heads that the sonic results verge distressingly on the cavernous. *D. H.*

RECORDING OF SPECIAL MERIT

© © BEETHOVEN: *Symphony No. 6, in F Major, Op. 68 ("Pastoral")*. Chicago Symphony Orchestra, Fritz Reiner cond. RCA Victor limited edition LSCD 2614 \$15.00. LMD 2614* \$15.00; LSC 2614 \$5.98, LM 2614* \$4.98.

Interest: Reiner valedictory
Performance: Spacious and affectionate
Recording: Gorgeous
Stereo Quality: Very good

No sooner had I sat down to write this review than word came over the radio that Fritz Reiner had passed away at the age of seventy-four. To today's generation, he was known as the man who rebuilt the Chicago Symphony Orchestra into one of the world's greatest. But I remember Reiner more especially from rehearsals with the NBC Symphony, which I was privileged to attend during the 1940's. In them, a combination of incredibly exact and exacting baton technique coupled with occasional doses of quiet but withering sarcasm produced crackling performances of contemporary and near-contemporary music. Memorable, too, were the Reiner opera productions in Philadelphia, such as *Der Rosenkavalier*, and at New York's Metropolitan—*Salome* with Ljuba Welitsch.

My steadfast opinion is that Fritz Reiner's monument in recorded music will remain his performances of the works of Béla Bartók and Richard Strauss, but this in no way detracts from the very substantial merits of this reading of the Beethoven "Pastoral" Symphony. As in the new Leinsdorf "Eroica," we have an approach quite different from that initiated by Arturo Toscanini and carried on by Karajan. Dr. Reiner, in company with Walter, Klemperer, and Monteux, takes a sultry midsummer day as his model: the opening pages are exquisitely limned, delicate in texture and carefully balanced in detail; the brook has an almost hypnotic, but not soporific, quality; and the peasants' merrymaking, storm, and song of thanksgiving are all treated with affectionate care rather than surrendered to impetuous drama. Thus the storm music, usually so impossible to reproduce on discs with any clarity, comes forth here with remarkable impact and musical intelligibility—for which the RCA engineering staff deserves a large share of the credit.

For all the control in Reiner's reading, this is no chilly interpretation. There can

be no question that this disc belongs high in the ranks of recorded "Pastoral" Symphony performances.

For those in an extravagant gift-giving mood, the \$15 limited-edition album has beautiful, if not always very appropriate, reproductions of paintings by Hobbema, Corot, Constable, Van Gogh, and others, together with joys-of-nature musings by Wordsworth, Tennyson, Tolstoy, Thoreau, and others. *D. H.*

© © BIZET: *Carmen*. Regina Resnik (mezzo-soprano), Carmen; Mario del Monaco (tenor), Don José; Joan Sutherland (soprano), Micaela; Tom Krause (bass-baritone), Escamillo. Suisse Romande Orchestra, Thomas Schippers cond. LONDON OSA 1368 three 12-inch discs \$17.94, A 4368* \$14.94.

Interest: Popular perennial
Performance: Uneven
Recording: Sumptuous
Stereo Quality: Spectacular

Though she does not, as a rule, sing the role at the Met, Regina Resnik is an internationally celebrated Carmen. Her



LONDON RECORDS

REGINA RESNIK
Sensuous and feline as Carmen

portrayal, as it is heard in this recording, is dramatically convincing. Details are well thought out: her *Habanera* is effectively feline, her *Seguidilla* is sensuously insinuating, and her scenes in the last two acts are imbued with an aura of fatality. But the bleak and lamentable fact is that Miss Resnik's voice is so wavery and so uncertain in intonation as to render her performance, in the final analysis, unacceptable.

Thomas Schippers' conducting is far too intense and too fast, and is lacking in lyricism, geniality, and important orchestral details. True, the procession that opens Act Four is tremendously exciting, but the same effect could have been
(Continued on page 76)

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gained with less frantic pacing: the music should suggest the anticipation of facing the bull rather than the sensation of being chased by it.

Though Mario del Monaco is hardly an ideal Don José from a strictly stylistic point of view, he nearly always manages to be convincing. The performance also receives a strong assist from Joan Sutherland's vocally exquisite Micaela, a role that asks for very little characterization, and from Tom Krause's resonant and swaggering Escamillo. The supporting roles are filled by artists of only routine competence.

This is certainly the richest-sounding

Carmen ever recorded—full of action, color, and such effective devices as crowd noises, marching feet, and even dancing heels. The orchestral preludes and entr'actes are excellently performed and recorded. If sound is your major consideration, the set is not to be dismissed. Otherwise, it is no match for the Beecham-De los Angeles version on Angel.

G. J.

© © COPLAND: *Concerto for Clarinet and String Orchestra*. Benny Goodman (clarinet); Columbia Symphony Orchestra, Aaron Copland cond. *Old American Songs*. William Warfield (bar-

itone); Columbia Symphony Orchestra. Aaron Copland cond. COLUMBIA MS 6497 \$5.98, ML 5897* \$4.98.

Interest: **Less familiar Copland**
Performance: **Authentic**
Recording: **Excellent**
Stereo Quality: **Good**

Aaron Copland's *Concerto for Clarinet and String Orchestra* was commissioned and first performed by Benny Goodman. The work reached the public about 1950, and due partly, I suspect, to the shift-in-the-wind toward serial chromaticism that was then beginning to alter our musical climate, the piece was rather dimly received by the new-music crowd of the time.

It shouldn't have been. And if I am tempted here to dabble in the sort of sweepstakes comparisons that I loathe, and to suggest that the piece is not the very best Copland, I do so only to stress better the fact that second-best Copland is likely to be a more rewarding musical experience than first-best almost anybody else today.

The piece is all charm and a mile wide. The opening slow movement is dominated by an easy-tempo, tender, blues-tinged melody over a sort of Satie accompaniment. The second movement is a jumpy, bright, jazz-inflected essay in Copland's brightest neoclassical manner. The piece is a joy to hear again, and Goodman, Columbia, and the composer conducting have given it to us in a recorded performance that improves upon the excellent one that it replaces.

The *Old American Songs* are "settings"—i.e., harmonizations, arrangements, and orchestrations—of already existing musical folklore. But the composer's creative act here is a good deal more dominating than such a description would seem to suggest. The pieces have already become staples of the recital repertoire, and William Warfield—their most celebrated interpreter—does them beautifully on this record. H. F.

DELIUS: *Violin Concerto* (see BARBER)

© © HANDEL: *Samson*. Phyllis Curtin (soprano), Delilah; Jean Preston (soprano), a Maiden; Louise Parker (contralto), Micah; Jan Peerce (tenor), Samson; Kenly Whitelock (tenor), a messenger; Roy Samuelson (baritone), Manoah; Malcolm Smith (bass), Harapha; Alexander Schreiner (organ and harpsichord continuo); University of Utah Symphonic Choral, Newell B. Weight director; Utah Symphony Orchestra, Maurice Abravanel cond. VANGUARD BACH GUILD BGS 5060/1/2 three 12-inch discs \$11.90, BG 648/49/50 \$9.96.

(Continued on page 78)

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COMMENTARY

⑤ ⑩ BYRD: *Mass for Five Voices; The Great Service: Magnificat and Nunc Dimittis; Ave Verum Corpus*. Choir of King's College Cambridge, David Willcocks cond. LONDON OS 25725 \$5.98, 5725* \$4.98.

These are some of William Byrd's most exquisite choral settings, music of simple, serene beauty, woven with polyphonic mastery. The polished choir produces well-blended sound, and its intonation is remarkably pure. Framed here in reverberant acoustics, the singing takes on an almost otherworldly quality, but the chorus' enunciation is rendered indistinct.

G. J.

⑤ ⑩ LISZT: *Piano Concerto No. 1, in E-flat; Les Preludes*. Andre Watts (piano); New York Philharmonic, Leonard Bernstein cond. COLUMBIA MS 6458 \$5.98, ML 5858 \$4.98.

Sixteen-year-old Andre Watts shows mastery of Liszt's technical fireworks and a sure musical personality—his interpretation is that of a perceptive musical intellect. Leonard Bernstein's orchestral support is smoothly excellent, and the sound is fine.

W. F.

⑩ MOZART: *Der Schauspieldirektor*. Hans Thimig (spoken role), the Impresario; Ellen Klein (soprano), Mlle. Herz; Margarethe Cornel (soprano), Mlle. Silberklang; Erich Zur Eck (tenor), Vogel-sang; Norman Foster (baritone), Buff. Vienna Volksoper Orchestra, Kurt Rapf cond. AMADEO AVRS 6254 \$5.95.

In this commendable performance, Mozart's little *Singspiel*, consisting musically of only an overture and five episodes, is augmented by two ensembles from his incomplete operas *L'Oca del Cairo* (K. 422) and *Lo sposo deluso* (K. 430). The slangy spoken text is delivered by the Viennese actors with clarity and gusto, but no translation is provided. The orchestral performance could use a little more sparkle. The sound is clean, the surfaces unusually silent.

G. J.

⑤ ⑩ MOZART: *Symphony No. 40, in G Minor; Symphony No. 41, in C*. Berlin Philharmonic, Karl Böhm cond. DEUTSCHE GRAMMOPHON SLPM 138815 \$5.98, LPM 18815* \$4.98.

Böhm's readings of these masterpieces are patently Central European: a little somber and weighted, a little on the slow side, and quite a lot short (when compared to Beecham's) in wit and élan. But the approach is valid, and the mellow results are commendable. The stereo recording is quite good—the Beecham recordings are in mono only.

W. F.

⑤ ⑩ SCHUMANN: *Symphony No. 2, in C Major, Op. 61*. New York Philharmonic, Leonard Bernstein cond. COLUMBIA MS 6148 \$5.98, ML 5818 \$4.98.

Bernstein, who is capable of outstanding Schumann interpretation, seems bent in this performance on the creation of dramatic effect through exaggeration. Lyrical episodes are heavily sentimental, and the heroic moments verge on the hysterical. Thus the final effect comes perilously close to vulgarity. The recording has plenty of impact and tonal warmth.

D. H.

⑤ ⑩ VIVALDI: *Gloria*. PEETERS: *Entrata Festiva, Op. 93*. Andrée Espósito and Michel Solange (sopranos); Janine Collard (contralto); Robert Casier (oboe); Henriette Puig-Roget (organ of Église St.-Roch Paris); Roger Wagner Chorale; Paris Conservatory Orchestra, Roger Wagner cond. ANGEL S 36003 \$5.98, 36003* \$1.98.

The Vivaldi reading, in spite of snappy tempos and rhythmic precision, is hopelessly Romanticized, and the distant, resonant sound of the ensemble is woeful. The bonus, a short processional written in 1959 by the Belgian organist-composer Flor Peeters, is grandiloquently sonorous but not very substantial thematically. Stereo possibilities are stunted.

I. K.

Interest: First recording
Performance: Rousing but unstylistic
Recording: Full-bodied
Stereo Quality: Excellent

Handel's three-act oratorio *Samson* was composed in 1741 shortly after the completion of *Messiah*, and uses a libretto condensed and adapted from Milton's epic poem. *Samson*, of course, is the mainstay of the drama, though the story does not begin until after his capture and blinding. Delilah has only a portion of the middle act, and the last act progresses gradually through a series of magnificent choruses to the destruction of the temple (in a Sinfonia).

The Utah production omits a number of the aria *da capos*, necessitated most likely by the problem of restricting the oratorio to six sides. Unfortunately, even those repeats that remain are not embellished in a fitting manner. Though the conductor commendably avoids an out-and-out Romantic treatment, the heavy orchestral and choral weight is nevertheless in the Victorian oratorio manner, and devoid of Baroque articulation and phrasing or such refinements as double-dotting and the embroidered cadences of Handel's day. The harpsichord continuo, too, is stolid.

One cannot find fault with Jan Peerce's projection of the name part, for he is an uncommonly stirring singer, and in good voice here, but neither his interpretation nor that of any other member of the cast sounds very Handelian. The performance as a whole is a rousing one, and if the style does not come up to the best Handel productions on records, such as *Alcina*, *Semele*, or L'Oiseau-Lyre's *L'Allegro ed il Penseroso*, it still is worth hearing. The recording is smooth and favors the vocalists slightly, but both stereo and mono sets benefit from a small treble boost. The complete text is included.

I. K.

⑤ ⑩ MOZART: *Don Giovanni: Or sai chi l'onore; Non mi dir, bell' idolo mio. Le nozze di Figaro: Porgi amor; Dove sono. Così fan tutte: Come scoglio; Per pietà, ben mio. Die Zauberflöte: Ach, ich fühl's*. Teresa Stich-Randall (soprano); Vienna Orchestra, Laszlo Somogyi cond. WESTMINSTER WST 17016 \$4.98, XWN 19046 \$4.98.

Interest: Mozartian touchstones
Performance: Exquisite singing
Recording: Close-to
Stereo Quality: Good

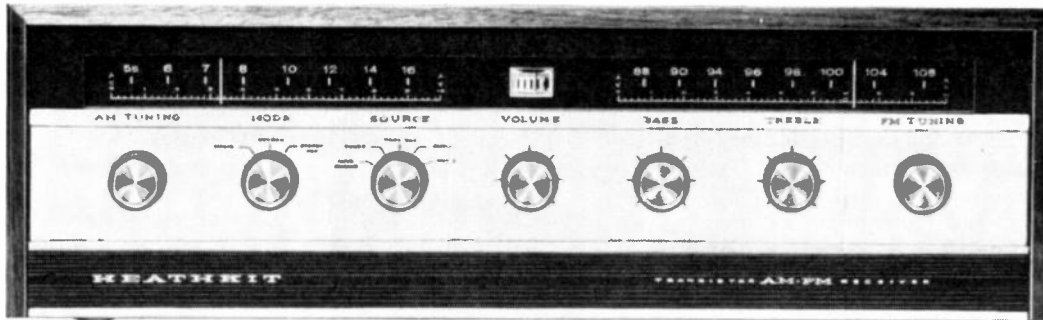
Teresa Stich-Randall is blessed with a voice of almost incredible loveliness. I am tempted to say that it is *too* beautiful, for there are times when it takes on a cool, somewhat disembodied quality, alluring in itself, but lacking any dramatic urgency. These are mainly in passages of

(Continued on page 82)

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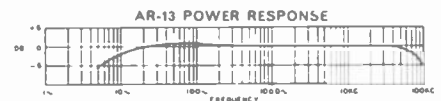
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SCHNABEL AND THE BEETHOVEN SONATAS

By DAVID HALL

VIRTUALLY all of Artur Schnabel's concert repertoire has been preserved on recordings, most of it representing him at his best, some of it displaying him in his most crabbed pedagogic manner. For Schnabel was first and foremost a teacher. It was in this capacity that he made his European reputation, and though he gave frequent recitals, he pretended to no virtuoso perfection, but sought rather to reveal the interior substance of whatever music he chose to play.

I am among those who found Schnabel at his best and most consistent in the works of Franz Schubert, and I look forward to reissues of the *Moments Musicaux* and of the A Major posthumous sonata (the *Impromptus* are currently available on an imported Electrola pressing, as are the D Major and B-flat posthumous sonatas). Nevertheless, it is as the high priest of Beethoven that Schnabel still stands highest in the eyes of both public and critics.

The long wait for a definitive reissue of Schnabel's 1932-1935 recordings of the Beethoven sonatas has been well worth while. In the form of a gigantic thirteen-disc de luxe album from Angel, the thirty-two sonatas are not only presented in their proper order (save for a break to accommodate the two sides required for the titanic *Hammerklavier*), but they are supplied in manual-coupling sequence. Also included with the release, which is in Angel's Great Recordings of the Century series, is a comprehensive brochure filled with background information about Schnabel the man, an account of how the recordings came about, and copious notes about the program.

Angel's handling of the transfers from 78's to LP is a good deal more successful here than it was in the case of the five Beethoven piano concertos (Angel GRE 4006). The room acoustics for these sonata recordings are both warmer and more consistent in character than they were in the concerto recordings. Angel has done an equally remarkable job in achieving consistency in piano tone and pitch. It must also be said, however, that the engineers were not able wholly to solve the problems of flutter and noisy surfaces. These seem to be almost inevitable stumbling blocks in 78-to-LP transfers of piano recordings (cf. the Mozart F Major Sonata in RCA's "Horowitz Col-

lection" album, LD 7021). On certain sides in this album, the background hiss becomes quite intrusive and annoying: the opening movement of Op. 49, No. 2, in G Major is the most distressing example. Flutter is also a fairly frequent problem throughout the set, and some tracks are afflicted with both very faint sound and high surface noise.

So much for technical aspects. How does Schnabel's playing stand up in the light of all that has happened in the art

wohl"), the tender lyricism of the concluding movement of Op. 90, and the synthesis of all these qualities in a transcendent reading of Op. 110. After all this, one can only exclaim, as did Dr. Delany at Susanna Cibber's singing of "He was despised" at the first public performance of Handel's *Messiah*: "For this, be all thy sins forgiven!"

It is surprising to realize that, since Schnabel's pioneer achievement, the Beethoven sonata cycle has been accomplished on discs by only three other pianists: by Wilhelm Backhaus (twice—the second time when he was in his seventies), by Wilhelm Kempff (twice—the second traversal still in progress), and by the late French veteran Yves Nat (some sides of this were released over here on the Haydn Society label). Walter Gieseking (for Angel) had covered more than two-thirds of the cycle when death claimed him. When Kempff completes his recordings of the sonatas, they will presumably be released over here on the DGG label. (Incidentally, the Schnabel series was available in this country on LP in the middle 1950's on the RCA Victor label, but these records have long been out of circulation.)

As with the Beethoven symphonies, so with the piano sonatas: it is too much to expect one human being to encompass with total justice the vast spiritual universe represented by this body of masterpieces and near-masterpieces. But Schnabel has come closest to communicating the wholeness of humanity to be found in Beethoven's musical language; while Backhaus most surely conveys the element of grandeur; and Kempff (if one may judge from his first series originally released on Decca) excels in lyrical detail and grace. There are, of course, individual sonata performances on discs that outstrip any to be found in the four cyclical recordings—Richter's of Op. 31, No. 2 and the "Appassionata," Gieseking's Columbia version of the "Waldstein," and Myra Hess' of Op. 109 and Op. 110, to name just a few. Still, we are all in Angel's debt for this documentation of Artur Schnabel's Beethoven sonata cycle in something approaching definitive form.

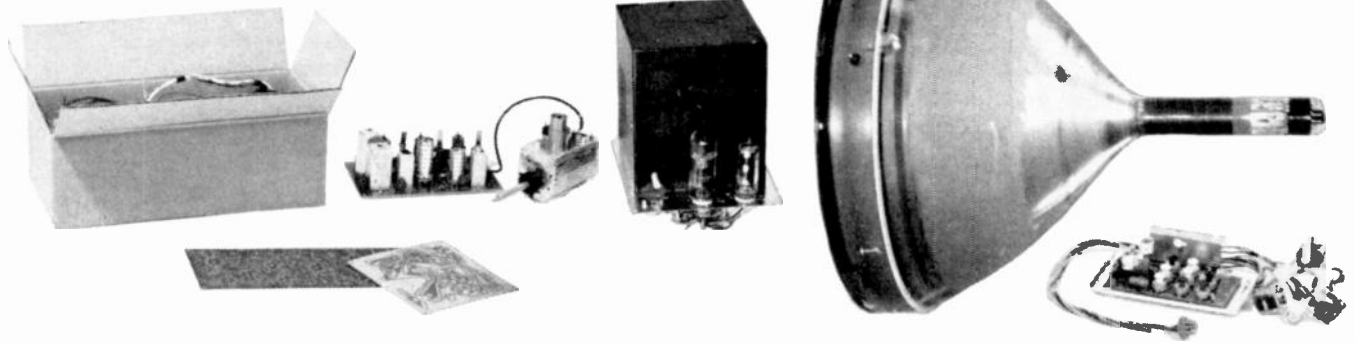
© BEETHOVEN: *The Thirty-two Sonatas for Piano*. Artur Schnabel (piano). ANGEL GRM 4005 thirteen 12-inch discs \$77.98.



ARTUR SCHNABEL
Transcendent in lyrical Beethoven

of musical performance and interpretation over the past thirty years? Certainly, his playing of the slow movements and the more songful dance movements is magnificent—as unique and moving today as ever. But now that a whole generation of gifted young pianists can combine Schnabelian expressive intensity with Horowitzian perfection of technique, it must be said that Schnabel's playing of the more virtuosic Beethoven is downright embarrassing. As a matter of fact, this was true even thirty-five years ago. Nevertheless, after one has cringed at a flurried and eccentric reading of the *Hammerklavier's* first movement, at a mad scramble in the finale of Op. 7, a distressing lack of fluency in the first movement of Op. 31, No. 2, and a hashed-up conclusion in the "Appassionata," one turns again to the revelatory discourse of the "Appassionata" first movement, the poignancy of the slow movement of the little Op. 79, the sheer humanity of the Op. 81a ("Lebe-

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sustained lyricism, and when temperament is called for—in the Donna Anna and Fiordiligi arias, for example—the artist, fortunately, is not wanting. She is, in fact, a formidable Mozart stylist and a marvel of control. Her tones are perfectly focused and her intonation flawless. Even the widest leaps and most sudden turns of Mozart's facile invention find her landing precisely on the tonal bulls-eye.

It is most unfortunate that this superlative vocal artist does not receive here the support she deserves. The microphoning is so close that undue attention is focused on the singer's breathing, and

the orchestral performance is quite perfunctory, reaching its lowest level in the anemic and metronomic "Dove sono." But the stylistic mastery and aural gorgeousness of Miss Stich-Randall's singing are ample reasons for acquiring this disc.

G. J.

RECORDING OF SPECIAL MERIT

© ® **POULENC:** *Art of Francis Poulenc. Sextet for Winds and Piano; Sonata for Two Pianos; Songs: Hôtel; Voyage à Paris; "C."* Philadelphia Woodwind Quintet; Arthur Gold and Robert Fizdale (two pianos); Jennie Tourel

(mezzo-soprano), Leonard Bernstein (piano). COLUMBIA MS 6518 \$5.98, ML 5918 \$4.98.

Interest: Poulenc testimonial

Performance: Fine

Recording: Good

Stereo Quality: Ditto

Unless my recollection is totally confused, this appealing release is, at least in part, a perpetuation of a program given in Carnegie Hall last year on the occasion of Francis Poulenc's death. Tourel, Bernstein, and Gold and Fizdale were certainly involved in the concert, although I am not sure that the program here is the same. In any case, the recording amounts to a sort of Poulenc sampler. Tourel does Poulenc songs marvelously and, even though it can be argued that there is another, perhaps more Gallic way of doing them, I myself am a hopeless captive of the sort of plum-colored glow that this singer brings to French music. Still, I wish she would go a little easy on the schmaltz in the bluesy *Hôtel*: its indolent sensuality is inherent in the music, and the singer who adds to it through interpretation flirts dangerously with parody.

Elsewhere, the performances are from good to excellent. Gold and Fizdale play the two-piano sonata hard, bright, and *sec*—quite as if it had been written by Stravinsky. I like it this way, myself, and those who disagree must face the fact that the piece was written expressly for these two performers, and that they probably have an authentic notion of how it ought to sound. The sextet is here performed by the same group of musicians—including Poulenc himself—listed on an earlier Columbia release of the same work. Whether or not it is the same recording, it is an excellent performance. *W. F.*

© ® **PROKOFIEV:** *Symphony No. 6.* Philadelphia Orchestra, Eugene Ormandy cond. COLUMBIA MS 6489, \$5.98, ML 5889 \$4.98.

Interest: Lesser Prokofiev

Performance: Brilliant

Recording: Excellent

Stereo Quality: Just

When the work of a really good composer is lit by the flame of his best inspiration, those features by which we recognize it are referred to as being his style. But when, for reasons that are rarely ascertainable, the same composer is producing his work at an inspirational ebb, those same features become mannerisms, clichés. Naturally, the more personal the composer's work, the more extreme the vacillation.

If these observations are something less than stirringly original, they nonetheless

(Continued on page 84)

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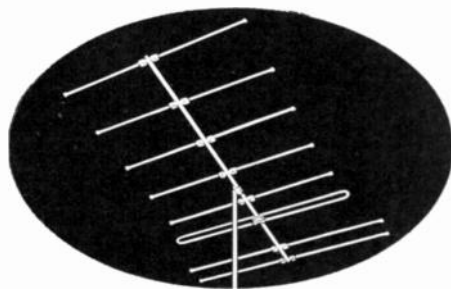
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less seem to me to pertain to Prokofiev's Sixth Symphony—a work conceived and executed during what must have been the most trying period of the composer's life. This would have been, of course, in the late Forties, when he and his work had been put on the Communist Party Central Committee's drop-dead list—along with just about every other composer of talent in the Soviet Union. Ironically, the very methods a composer might use to keep his style fresh could involve the sort of musical adventurism the Central Committee habitually frowns upon.

Whatever Prokofiev's thoughts on these matters—and they must have been very much on his mind while he was composing his Sixth Symphony—the work itself points to the problem. For the Sixth Symphony is pure Prokofiev: melodies that stick like burrs; jokes about musical style; unerringly masterful formal control and orchestral virtuosity.

But somehow—for me, at least—the work doesn't quite get off the ground. If the tunes stick, they are also sticky; one can call the next shot with dismaying accuracy; and Prokofiev's jokes seem lame and groggy.

But what a production the Ormandy-Philadelphia-Columbia team have given this work! The performance has a sweep, grandeur, and virtuosity that take one's breath away, and Columbia's sound is rich, live, and even more expansive than usual.

W. F.

© M SCHOENBERG: *The Music of Arnold Schoenberg, Volume Two. Verklärte Nacht; Pelleas und Melisande; Three Little Orchestra Pieces; Variations for Orchestra; Prelude to the Genesis Suite.* CBC Symphony Orchestra, Robert Craft cond. COLUMBIA M2S 694 two 12-inch discs \$11.96, M2L 294* \$9.96.

Interest: Schoenberg early and late
Performance: Variable
Recording: Good
Stereo Quality: Good

With this second volume of Columbia's Operation Schoenberg, certain aspects of both the success and failure of this long-range project begin to come into view, aspects that were not obvious on the evidence of the first volume. One of its successes, for example, is the new insight we gain into the over-all achievement of the controversial Arnold Schoenberg through Robert Craft's plan to represent the composer's complete output on discs. A little-known symphonic poem based on Maeterlinck's *Pelléas et Mélisande*—an intensely romantic and accessible work composed in 1902—is a case in point. The strong influence of Richard Strauss is a surprising revelation. So is the utter incompatibility of Schoenberg's

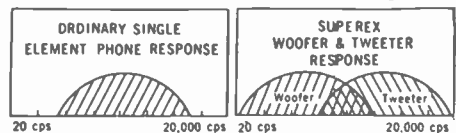
(Continued on page 86)

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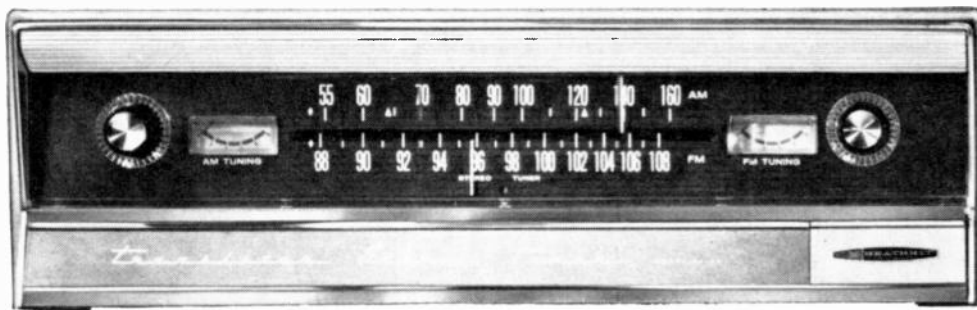
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world-weary, dense post-Romantic eclecticism with the aura of rueful enchantment that dominates the Maeterlinck play. But perhaps more startling than either of these findings is the discovery that boredom is induced by the music itself. There is none of the élan, the sheer joy in making music that enlivens even the most outrageous excesses of Strauss or Mahler.

The remaining works here are of a more advanced twelve-tone disposition. *Variations, Op. 31*—cited as the first composition for orchestra employing twelve-note technique—is a volatile and rugged chunk of music. Its lineage in the

Beethoven-Brahms variation style gives the listener a sort of structural frame of reference, and it has always seemed to me to be a highly approachable and vital work.

Prelude to the Genesis Suite—evidently a commissioned work involving such other composers as Tansman, Milhaud, and Stravinsky—is brief, evocative, and, it seems to me, far too distinguished a work to have been permitted to languish in obscurity. Here again: a splendid fruit of the Columbia-Craft expedition.

The recording is eminently suited to Craft's highly contrapuntal, X-ray ap-

proach to the music, and the handsome book of annotation is a welcome improvement over the missionary fervor, intramural technical blah-blah, and Milton Babbity that made the set of notes accompanying the first volume a patent absurdity.

If I now suggest that no limitation of the music itself is likely to justify the lack of tension and excitement in Craft's performance of this music, I am making a *de facto* approach to what may turn out to be the severest shortcoming of the project as a whole. In the case of Craft's performances of Schoenberg's difficult twelve-tone works, our lack of familiarity with them and their idiom makes the larger aspects of performance judgment all but out of the question at this time. But if they are as wanting in interpretive excitement as these readings of *Verklärte Nacht* and *Pelleas und Melisande*, then they will one day be seen to be neither definitive nor necessarily even very good.

W. F.

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© ® SCHUMAN: *Symphony No. 8*. New York Philharmonic, Leonard Bernstein cond. **BARBER:** *Andromache's Farewell*. Martina Arroyo (soprano), New York Philharmonic, Thomas Schippers cond. COLUMBIA MS 6512 \$5.98, ML 5912 \$4.98.

Interest: Major American work

Performance: Superb

Recording: Excellent

Stereo Quality: First-rate

This superb recording of William Schuman's Eighth Symphony has set me to wondering if the value of this composer's work has been properly assessed either by the public or the musical community. For Schuman has been so much associated with staunch and respectable officialdom—first as president of the Juilliard School and now as head of Lincoln Center for the Performing Arts—that we tend to think of him as a pillar of the Establishment, conservative, venerable, prestigious, and a sort of *de facto* power in our musical life.

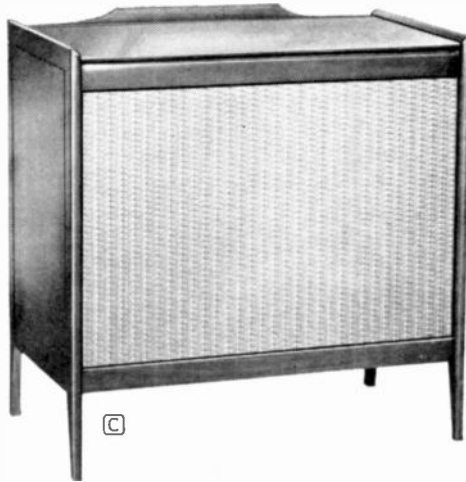
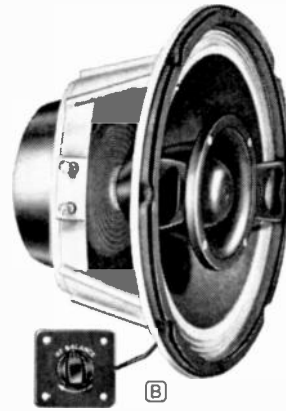
He is certainly not venerable—with twenty years or so of considerable fame, he is still only in his early fifties. And unless you wish to buy the currently swanky notion that all that is not twelve-tone is reactionary, he is no conservative. What he is is a composer of individuality and daring—no one else could conceivably have written this Eighth Symphony. His music is unmistakably American, and, judging by the consistency of output, he is surely close to the top of any list that might be made of contemporary symphonists.

If you question these findings, turn
(Continued on page 88)

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your attention to Leonard Bernstein's brilliant recording of Schuman's most recent symphony. For this grim, powerful, and intensely personal utterance is masterfully, daringly thought out. But be warned: this bold, abrasive work is not for sissies, nor is it for clods. Those who turn their ears on only to switch their minds off, those who seek only comfort and entertainment from music, had better turn their attention elsewhere.

On the second side, this new Columbia release *does* offer something for the listener in search of comfort and sonic indulgence. Samuel Barber's concert aria, *Andromache's Farewell* (like the Schuman work, it was commissioned to celebrate Lincoln Center's first season) is a luxurious milk bath of familiar sound. A setting of an excerpt from Euripides' *The Trojan Women*, the work is all about Samuel Barber's feelings on the matter of the late Richard Strauss.

Andromache's Farewell, either in spite of or because of Richard Strauss (I'm not quite sure which), is a thoroughly effective concert piece. If we've all suspected that Barber's gift for vocal writing has by now passed into the stage of mastery, this new piece tells us that we'd better believe it. The new work is, furthermore, handsomely tailored, in a loose, motivic nineteenth-century fashion, and the orchestration is brilliantly eclectic. But the whole piece, when all is said and done, is a startlingly predictable, skillful, sonorous bore. Soprano Martina Arroyo sings the piece marvelously, and Bernstein and his orchestra give both the Schuman and the Barber works a magnificent workout. *W. F.*

© M TCHAIKOVSKY: *Piano Concerto No. 1, in B-flat Minor, Op. 23*. Artur Rubinstein (piano); Boston Symphony Orchestra, Erich Leinsdorf cond. RCA VICTOR LSC 2681 \$5.98, LM 2681 \$4.98.

Interest: Pianistic warhorse
Performance: Straightforward
Recording: Good
Stereo Quality: Good

At long last the Tchaikovsky B-flat Minor Concerto has been recorded, in Boston, the city of its 1875 world premiere, by the soloist whose performance with Barbirolli and the London Symphony Orchestra on 78-rpm discs in the early 1930's was a touchstone for collectors of that day. The approach to this music by Artur Rubinstein and Erich Leinsdorf seems much the same as that of Philippe Entremont and Leonard Bernstein for Columbia: a search for a valid synthesis of brilliance and unabashed lyricism. But for all the conscientiousness and skill they lavish upon this performance, Rubinstein and Leinsdorf seem unable to match either
(Continued on page 90)



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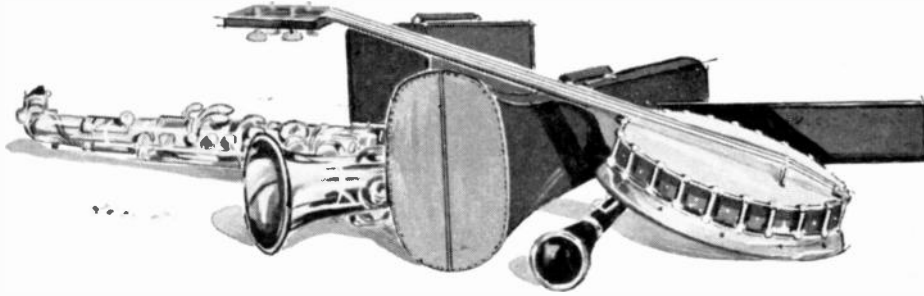
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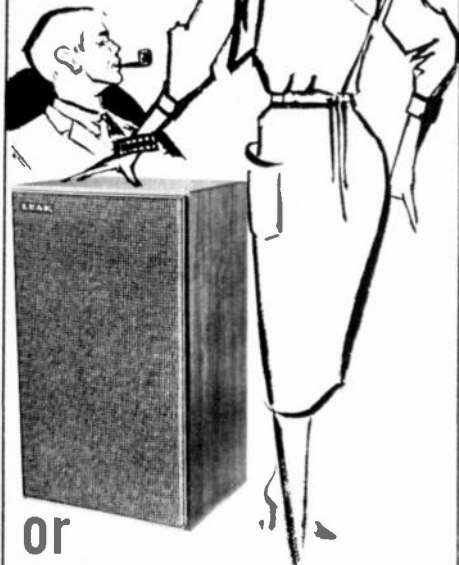
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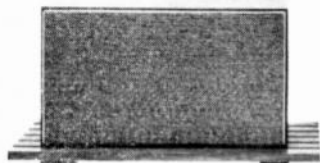
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the dynamic thrust or the delicacy of their younger colleagues. This is particularly noticeable in the slow movement, where the scherzando episode surprisingly lacks sparkle. Nor do I find in the finale the frenetic excitement that Rubinstein brought to his old London Symphony recording.

As a long-time admirer of Rubinstein's art, I regret that I cannot summon up more enthusiasm for this recorded performance. RCA has done a good recording job, even to capturing merrily the rather hard tone of the solo piano's middle register. *D. H.*

RECORDING OF SPECIAL MERIT

© © VIVALDI: *Concerto for Flautino, in C Major; Cello Concerto, in C Minor; Concerto "con Violino Principale, et altro Violino per eco in lontano," in A Major; Concerto for Viola d'Amore, Lute, and Strings, in D Minor.* Hans-Martin Linde (sopranino recorder); Klaus Storek (cello); Susanne Lautenbacher (violin); Ernesto Mampaey (violin, echo); Emil Seiler (viola d'amore); Karl Scheit (lute); Emil Seiler Chamber Orchestra. Wolfgang Hofmann cond. DGG Archive ARC 73218 \$6.98, ARC 3218* \$5.98.

Interest: Vivaldi miscellany
Performance: Outstanding
Recording: Superb
Stereo Quality: First-rate

Although the four concertos included in this collection are not major Vivaldi, they do represent the composer's not inconsiderable interest in unusual instrumental combinations and effects. Some idea of Vivaldi's sense of novelty may be heard in the A Major Concerto for violin with a second violin acting as an echo in the distance. The most familiar of these concertos, none of which is new to discs, is the C Major, usually heard with a piccolo solo. Here, as in the recent Krainis performance on Columbia MS 6475/ML 5875, a sopranino recorder is used, and though Krainis' interpretation is virtuosic, it is immediately apparent on listening to Hans-Martin Linde that his is even more so—this, in fact, is recorder playing and interpretation of the very highest order, and, were the rest of the album inferior in performance, the disc could still be recommended solely for this scintillating rendition. The remaining items, however, are equally well done from every point of view, including that of eighteenth-century style, regrettably not a very frequent commodity in recorded Vivaldi. As far as I know, this is the first recording of the viola d'amore concerto to use the specified lute rather than guitar. The orchestral accompaniments are exceptionally good, and the full-bodied recording is a pleasure to the ear. In sum, don't miss it. *I. K.*

COLLECTIONS

© © THE GLORY OF CREMONA. Desplanes: *Intrada*. Nardini: *Larghetto*. Vivaldi: *Præludium*. Paganini: *Cantabile and Waltz*. Mozart (arr. Friedberg): *Adagio*. Kabalevsky: *Improvisation, Op. 21, No. 1*. Tchaikovsky: *Mélodie, Op. 42, No. 3*. Veracini: *Largo*. Paradis (arr. Dushkin): *Sicilienne*. Hubay: *The Violin Maker of Cremona*. Handel: *Larghetto*. Schumann (arr. Kreisler): *Romance in A Major*. Brahms: *Hungarian Dances Nos. 17 and 20*. Mendelssohn (arr. Kreisler): *Song without Words, Op. 62, No. 1* ("May Breeze"). Bruch: *Violin Concerto No. 1, in G Minor (excerpt)*. Ruggiero Ricci (violin); Leon Pommers (piano). DECCA DXSE 7179 one 12-inch and one 7-inch disc \$6.98, DXE 179* \$5.98.

Interest: \$750,000 violin comparison
Performance: Money's worth
Recording: Good
Stereo Quality: Good

Can you tell the difference in sound between a Stradivarius and a Guarnerius? An Amati and a Bergonzi? This novel disc of performances on fifteen priceless fiddles of the past—valued collectively at about \$750,000—may not make you an expert, but you will certainly learn something about the varied products of the great violin makers of Cremona during the sixteenth, seventeenth, and eighteenth centuries, the golden age of violin-making. You will learn that not all of the six Antonio Stradivari instruments demonstrated here have the same timbre, that they in turn sound quite different from five violins created shortly after by Joseph Guarneri del Gesù.

This recording is one that all fiddle fanciers will insist on having. Others may value the record less for the repertoire, which is of the encore variety, than for the opportunity to distinguish between the instruments and to choose favorites. Let them be warned, however, that the characteristic sound differences are often subtle ones. To assist aural recognition, an accompanying 7-inch disc—an admirable idea and a valuable supplement—presents all fifteen fiddles in rapid succession. Ruggiero Ricci plays the opening solo bars of the first Bruch concerto on all fifteen instruments.

Ricci plays everything with gorgeous tone and impeccable technique, regardless of what instrument he is using, though his interpretive style is securely in the Romantic tradition. Extensive notes, as well as full descriptions and pictures of the instruments used, add further value to the package. The recorded sound is bright but satisfactory, except for some constriction at the side-ends. The stereo pressing, however, has more than a fair share of background noise. *I. K.*

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JAZZ

Reviewed by JOE GOLDBERG • NAT HENTOFF

Ⓢ Ⓜ COUNT BASIE/ELLA FITZGERALD: *Ella and Basie!* Ella Fitzgerald (vocals); Count Basie (piano); orch. 'Deed I Do; Tea for Two; Shiny Stockings; Ain't Misbehavin'; and eight others. VERVE V6 4061 \$5.98, V 4061* \$4.98.

Interest: First meeting
Performance: High-spirited
Recording: Excellent
Stereo Quality: Very good

This is, surprisingly, the first album-long collaboration for Miss Fitzgerald and Basie. The occasion is clearly an enjoyable one for Miss Fitzgerald. Here, her beat has that special bounce that comes from being particularly at home with one's accompaniment. Also, as always, her intonation is flawless, and the security with which she uses her supple voice in an instrumental style is impressive—a demonstration of why other singers rate her work so highly. This is evident not only in the wordless scat passages, but also in the subtly flexible ballads *My Last Affair* and *Ain't Misbehavin'*. To me, however, Miss Fitzgerald is deficient as an interpreter of lyrics. She does not make them cutting and personal, as Billie Holiday did nor as Carmen McRae now does. But listened to primarily as an unusually deft instrument, her voice can be delightful.

The Basie band, as Norman Granz observes in the notes, no longer includes major soloists. It is an ensemble machine, capable of only limited dynamics, and is often stiffer rhythmically than it need be—the result of drummer Sonny Payne's failure to realize that precision should not negate fluidity. In any case, Quincy Jones has effectively written for the ensemble strength of the band. His arrangements are spare, and allow the crisply disciplined sections to punctuate Miss Fitzgerald's vocals stimulatingly with simple riffs and other complementary patterns.

Explanation of symbols:

- Ⓢ = stereophonic recording
- Ⓜ = monophonic recording
- * = mono or stereo version not received for review

On one of the two small-combo numbers, incidentally, Count Basie makes one of his far too rare appearances as organist. His touch and his taste are a reminder that the organ would have a more honorable place in contemporary jazz if its younger practitioners had more self-control and were more sensitive to what their colleagues are playing. *N. II.*

Ⓢ Ⓜ ART BLAKEY: *Ugetsu*. Art Blakey (drums), Freddie Hubbard (trumpet), Curtis Fuller (trombone), Wayne Shorter (tenor saxophone), Cedar Walton (piano), Reggie Workman



RIVERSIDE RECORDS

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(bass). *One by One; Ugetsu; Time Off; On the Ginza;* and two others. RIVERSIDE RS 9464* \$5.98, RM 464 \$4.98.

Interest: Blakey at Birdland
Performance: As usual
Recording: Good

Over the past few years, Art Blakey has turned his Jazz Messengers group into a sort of musical museum without walls, a display mechanism for accretions to the parent style, bop. Originally, with Horace Silver, the Messengers was a funky, hard-bop unit. Lately, it has begun to move toward the modality of

Miles Davis, and now, under musical director Wayne Shorter, it has added to its bag John Coltrane's explorations of Davis. This last is obvious in saxophonist Shorter's own heavy reliance on Coltrane. The band is also representative of other post-bop groups in that it is at its least effective playing ballads: on this album, *I Didn't Know What Time it Was* is nothing more than a pretentious display piece for Shorter's saxophone.

The band's principal soloist is trumpeter Freddie Hubbard, whose finest work here is on *One by One*. Blakey himself, a source of irresistible energy for the band, does not solo even once, but confines himself to prodding and propelling his associates—which he does superbly. Blakey has made several records more exciting than this one, but even in his lesser moments, he provides an accurate fever chart of East Coast orthodoxy. The music, recorded at Birdland, is interspersed with announcements and sounds of audience reaction. *J. G.*

Ⓢ Ⓜ BUDDY DE FRANCO / TOMMY GUMINA: *Polytones*. Buddy DeFranco (clarinet), Tommy Gumina (accordion-organ), John Doling (bass), John Guerin (drums and percussion). *Nica's Dream; I Remember Bird; Gravy Waltz; My Man's Gone Now;* and five others. MERCURY SR 60833 \$4.98, MG 20833* \$3.98.

Interest: Unusual instrumentation
Performance: Varies
Recording: Good
Stereo Quality: Okay

The quartet led by Buddy DeFranco and Tommy Gumina employs the unusual combination of clarinet, bass, drums, and Gumina's hybrid, the accordio-organ. This last is capable of sounding like either of the two instruments from which it derives its name, and so the group, when it plays a "soul" piece such as *The Monkey*, sounds like a ladies'-tea imitation of an organ-tenor combo.

For the most part, the players eschew emotionalism and depend for effect on polytonality—DeFranco plays in one key, Gumina accompanies him in another. As might be expected, this gives familiar tunes a richer texture. (The effect, al-

though perhaps new to jazz, is certainly not new to music). DeFranco's sound is lovely and cool, especially when, on *My Ship*, he employs a muffling device called a "clarinet practitioner." But, even with these assets, it is by no means enough to play such ballads as *My Ship* and *When I Fall in Love* once through, with little or no improvisation.

On one number, *Bus Driver in the Sky*, the group drops its straight tone and method, and the result is sheer delight. An up-tempo piece, it has a solo by Gumina that is nearly incredible. If the entire album were like this, it would be splendid. For the most part, it is only contemporary mood music. J. G.

RECORDING OF SPECIAL MERIT

© © BUD FREEMAN: *Something Tender*. Bud Freeman (tenor saxophone), George Barnes and Carl Kress (guitars), *The Eel's Nephew*; *Please*; *It Must Be True*; *Mountain Greenery*; and eight others. UNITED ARTISTS 15033* \$5.98, 14033 \$4.98.

Interest: Unpretentious jazz
Performance: Fresh and imaginative
Recording: Good

Like Pee Wee Russell, tenor saxophonist Bud Freeman has been inaccurately categorized through the years as a Dixieland or a Chicago-style player. Actually, Freeman has had wide experience, from big swing bands to a term with Lennie Tristano. He is, in fact, less classifiable than most jazzmen, and his style is unmistakably his own. Besides the immediately identifiable tone—lean, muscular, yet capable of delicacy—there is Freeman's propulsive rhythm. He has a particularly buoyant way of swinging that, as he grows older, has less and less connection with the traditional hard drive of Dixieland groups.

Freeman is also a superior melodist, and thanks to George Wein, who produced this album, Freeman has more freedom for melodic improvisation in this set than on any previous recording occasion. He is deftly accompanied by two guitarists, Carl Kress and George Barnes. Over their resilient and resourceful backing, Freeman reanimates such standards as *Please*, *Mimi*, *Let's Do It Again*, and *It Must Be True*, and also exercises his playful wit upon several originals. Freeman, as this album confirms, is a singularly durable musician. N. H.

© © HERBIE HANCOCK: *My Point of View*. Herbie Hancock (piano), Donald Byrd (trumpet), Grachan Moncur III (trombone), Hank Mobley (tenor saxophone), Grant Green (guitar), Chuck Israels (bass), Anthony Williams (drums). *Blind Man*, *Blind Man*; *A*

Tribute to Someone; *King Cobra*; *The Pleasure Is Mine*; *And What if I Don't*. BLUE NOTE ST 84126 \$5.98, 4126* \$4.98.

Interest: New pianist-composer
Performance: New York conservative
Recording: Good
Stereo Quality: Good

Herbie Hancock, the young pianist who first came to general notice in the Donald Byrd-Pepper Adams Quintet, became the composer of a hit with his *Watermelon Man* and is now a member of the Miles Davis group. His associates on this record (his second as a leader) are either at present connected with one of these two older groups, or have been in the past. His former leader Byrd is present, tenor



BUD FREEMAN
Unclassifiable, singularly durable

saxophonist Mobley was with Davis for a long while, and the remarkable young drummer Tony Williams is now in the Davis band with Hancock. Also present are trombonist Grachan Moncur III, bassist Chuck Israels, and a Blue Note regular, guitarist Grant Green, who contributes some of his best work here.

All the compositions are Hancock's. *Blind Man*, *Blind Man* is a reworking of the central idea of *Watermelon Man*, and though it may not become as successful as its model, it is musically more mature and contains one of Mobley's best solos on records. *Tribute* shows both Hancock's and Williams' relation to Davis: it follows almost exactly Davis' routine way with ballads. *And What if I Don't*, which owes a debt to rhythm-and-blues, sounds like early Ellington.

The album as a whole is a fine example of current New York conservative jazz, although Donald Byrd has often shown more inventiveness. Hancock is not yet a major artist, but youth and a stint with Davis are on his side. J. G.

© © JIMMY HEATH: *Swamp Seed*. Jimmy Heath (tenor saxophone), Donald Byrd (trumpet), Julius Watkins and Jim Buffington (French horns), Don Butterfield (tuba), Percy Heath (bass), Harold Mabern and Herbie Hancock (piano), Albert Heath and Connie Kay (drums). *Six Steps*; *More than You Know*; *"D" Waltz*; *Wall to Wall*; and three others. RIVERSIDE RS 9465* \$5.98, RM 465 \$4.98.

Interest: Pleasant modern jazz
Performance: Skillful
Recording: Good

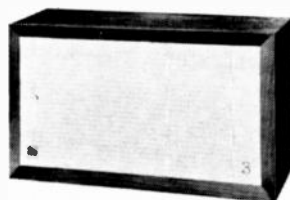
Jimmy Heath, a tenor saxophonist who also composes and arranges, scored this brass-accented octet album, and is also a featured player in the company of trumpet, French horns, tuba, and rhythm section. The texture of the resulting ensemble is full without being flatulent, and it gives Heath a more subtle color spectrum to work with than is customary on most small-combo jazz dates. There are three originals by Jimmy Heath and one by his brother Percy. All four are attractive, though not particularly distinctive in theme or development. Also included is a version of Thelonious Monk's *Nutty* that is not as pungent as any of Monk's own various approaches.

Heath is the principal soloist, and his work gives evidence of a maturing conception. His improvising is sinewy, tasteful, and ardent. His tone is full and consistently heightened by blues colorations. But Heath is not yet a forcefully individual jazzman—he is dependable, but seldom surprising. Trumpeter Donald Byrd improvises with lyrical imagination, but his work here lacks fire. The playing by the other musicians is expert, particularly the lithe, lucid piano of Herbie Hancock. N. H.

© © EARL "FATHA" HINES: *His Piano and Ralph Carmichael's Swingin' Big Band*. Earl Hines (piano); orchestra, Ralph Carmichael cond. *My Monday Date*; *I Want a Little Girl*; *Ann*; *Thou Swell*; and eight others. CAPITOL ST 1971 \$4.98, T 1971* \$3.98.

Interest: Nonpareil pianist
Performance: Vigorous
Recording: Superior
Stereo Quality: First-rate

Earl Hines has in recent years been trying to work in the context of his own "mainstream" style. He would especially like to head a permanent big band, since he remembers the satisfactions and achievements he enjoyed with his orchestras from 1928 to 1948. The economics of the band business is against him, but Capitol has accommodated him by assembling such a band on this occasion. Among
(Continued on page 96)



AR-3 REPORT FROM LONDON: R. L. West writes in the March, 1963 *Hi-Fi News*. "This is the first time in his life that the reviewer has ever heard 20 c/s from a commercial loudspeaker. Feeling is perhaps a better word. Above 25 c/s it [*the AR-3*] will take enough power to make really impressive organ pedal tone without obvious harmonic generation.

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the tunes are several that were associated with Hines during his years as an orchestra leader, *Deep Forest*, *Rosetta*, and *Cavernism* among them. The others are standards.

The album is only partially successful. Hines is brilliant: although he is now fifty-eight, there has been no dilution of what Stan Kenton in the notes calls his "dynamic energy." His attack, his leaping melodic imagination, and his whip-like sense of swing create sustained excitement. And the excitement is not simply on the surface. Hines' ideas are original and are strongly developed. But the band and the arrangements by Ralph Carmichael are disappointingly without character. The scores are crisp, though occasionally overbearing. Carmichael has "modernized" the common language of many swing-era big bands, but no attempt is made to provide Hines with the individuality of coloring or with the kind of section-writing that would complement the pianist's bold angularity. The set, therefore, is recommended for what it shows us of Hines' continuing vitality—but it could have been much more stimulating. As usual, Capitol's engineers are well ahead of their competitors in their ability to record a big band with unusual clarity and full presence. *N. H.*

© STAN KENTON: *Adventures in Blues*. Stan Kenton (piano); orchestra. *Dragonwyck*; *Exit Stage Left*; *Night at the Gold Nugget*; *Fitz*; and five others. CAPITOL ST 1985 \$4.98, T 1985* \$3.98.

Interest: Economical Kenton
Performance: Crisp and disciplined
Recording: Superior
Stereo Quality: Excellent

Simplicity has rarely been a characteristic of the writing for the Kenton band. Too often there has been a surfeit of needlessly ornate decoration. This collection of nine lean blues scores by Gene Roland is thus a refreshing departure from Kenton's usual ponderousness. Roland has been writing for Kenton off and on for nineteen years, and has also written extensively for other big bands, most notably Woody Herman's. He is particularly expert at constructing spare, resilient arrangements that give the soloists ample room and at the same time permit the band as a whole to exercise its collective power.

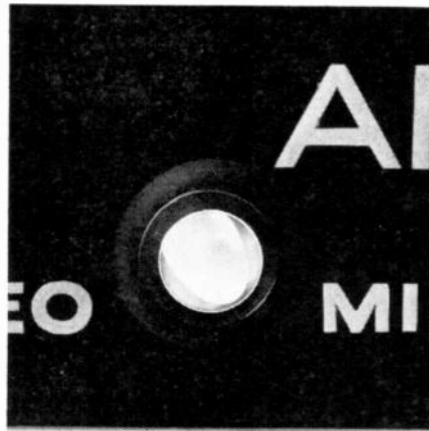
None of these numbers is brilliantly original, but all serve to stimulate the Kenton sidemen, and some are unusually evocative of bittersweet moods (*Dragonwyck*, *Bluc Ghost*). Roland himself plays a haunting soprano saxophone, and there are other substantial solos by trumpeter Marv Stamm, alto saxophonist Gabe Baltazar, and trombonists Dee Barton and Bob Fitzpatrick. Occasionally, the

(Continued on page 98)

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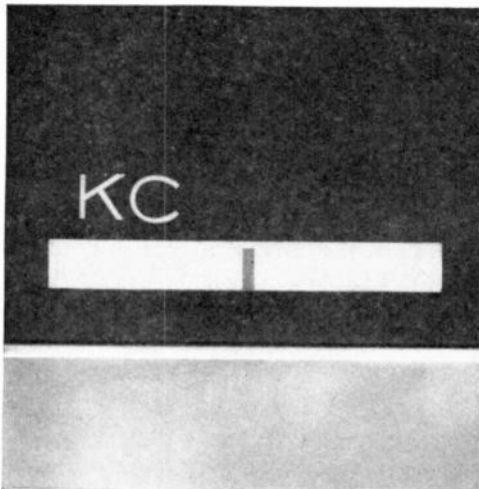
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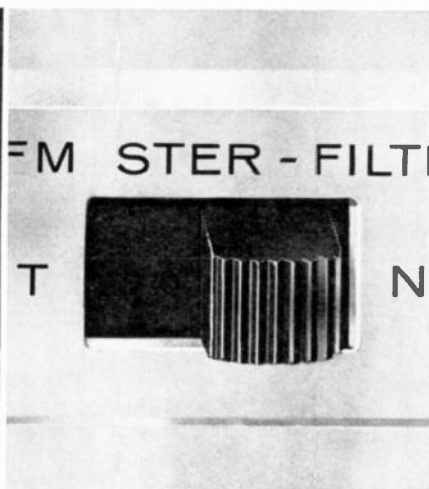
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band becomes too aggressive, but this is what you might expect of an orchestra trained in exaggeration. As a whole, however, this is one of the most sinewy and basically swinging records Kenton has ever made. *N. II.*

RECORDING OF SPECIAL MERIT

© ® **GERRY MULLIGAN AND JOHNNY HODGES:** *Gerry Mulligan Meets Johnny Hodges.* Gerry Mulligan (baritone saxophone), Johnny Hodges (alto saxophone), Claude Williamson (piano), Buddy Clark (bass), Mel Lewis (drums). *Bunny; What's the Rush; Back Beat; Shady Side;* and two others. VERVE V6 8536 \$5.98, V 8536* \$4.98.

Interest: Master meets expert
Performance: Casually distinguished
Recording: Good
Stereo Quality: Good

Probably any recording in which Johnny Hodges were involved would be highly distinguished, as any enlisting the services of Gerry Mulligan would be carefully expert. This reissue, another of Mulligan's meetings with the jazz saxophone peerage, has enough of the good qualities of both major participants to make it thoroughly delightful. The two men find common ground without stylistic clashes, and the results are as nearly undateable as jazz can get.

Each of the two wrote three tunes included here. Of special interest are Mulligan's charming *Bunny* and his *What's the Rush*, a ballad for Hodges on which Mulligan does not play. Mulligan's finest moments are on the Hodges tunes. On *What It's All About*, he opens with a tribute to the altoist, and on *Shady Side*, his solo is a small, simple marvel of structure. The rhythm section, chosen by Mulligan from his musical camp, is discreet and sympathetic. *J. G.*

© ® **BILL POTTS:** *Bye Bye Birdie.* Clark Terry (trumpet, flugelhorn); Markie Markowitz, Joe Newman, and Ernie Royal (trumpets); Willie Dennis (trombone); Phil Woods, Gene Quill, and Ron Odrich (reeds); Billy Costa (piano); Milt Hinton (bass); Sol Gubin (drums). *Bye Bye Birdie; Rosie; Kids; One Boy (One Girl); The Closer;* and five others. COLPIX SCP 451 \$5.98, CP 451* \$3.98.

Interest: Pleasant jazz version
Performance: Lively
Recording: Good
Stereo Quality: Good

Arranger Bill Potts, whose jazz version of *Porgy and Bess* was highly acclaimed a few years back, scored this jazz treatment of *Bye Bye Birdie*. *Birdie* is not *Porgy*, and Potts' version is fast, slick,

and glib, a skillfully done technical exercise that is pleasant enough to hear, but not very expressive. *Put on a Happy Face* puts on some fake *chinoiserie*, *One Last Kiss* leaves the trumpeter kissing his mouthpiece, and *Kids* is kidded with a children's chant in counterpoint.

The eleven musicians are, for the most part, the same New York studio men who show up for all such ventures. Phil Woods reveals on *Baby, Talk to Me* that he has discovered Eric Dolphy. Drummer Sol Gubin is a little too heavy-handed with the badly placed bombs that throw *Kiss* out of phase. And Clark Terry, with his solo on the title number and fine lead



GERRY MULLIGAN
Another saxophone summit conference

work elsewhere, makes one reflect on the many moderately talented arrangers he has bailed out in the last few years.

I wish Potts had included the fight song that begins "We love you, Conrad," but that is really no grounds for a quarrel. And it should be said that the score is really worthy of no more memorable treatment than it has been given here. *J. G.*

© ® **VI REDD:** *Lady Soul.* Vi Redd (alto saxophone, vocals), Bill Perkins (tenor saxophone, flute), Jennell Hawkins and Dick Hyman (organ), Paul Griffin (piano), Barney Kessel and Bucky Pizzarelli (guitar), Leroy Vinnegar and Ben Tucker (bass), Leroy Harrison and Dave Bailey (drums). *Yours; Lady Soul; This Love of Mine; That's All; All I Need Is You;* and six others. ARCO S 33157 \$4.98, 33157* \$3.98.

Interest: New blues singer
Performance: Good pop blues
Recording: Good
Stereo Quality: Likewise

A certain amount of attention has been directed toward Vi Redd because she is a curiosity: a female jazz-alto player. Of course, her admirers are quick to insist that she needs no side-show build-up, which is true, for she plays with a fully masculine power, in the preaching style of the late Ernie Henry or sometime altoist Ray Charles. Most of this record, though, is given over to Miss Redd's efforts as a vocalist—only two numbers are instrumentals. With her rough, husky, multinote style, she demonstrates deep blues feeling come to terms with commercialism. Unfortunately, Miss Redd's calculated insertion of unnecessary hip expressions into her contemporization of *Ah, Sweet Mystery of Life* almost subverts an otherwise delightful novelty. *J. G.*

RECORDING OF SPECIAL MERIT

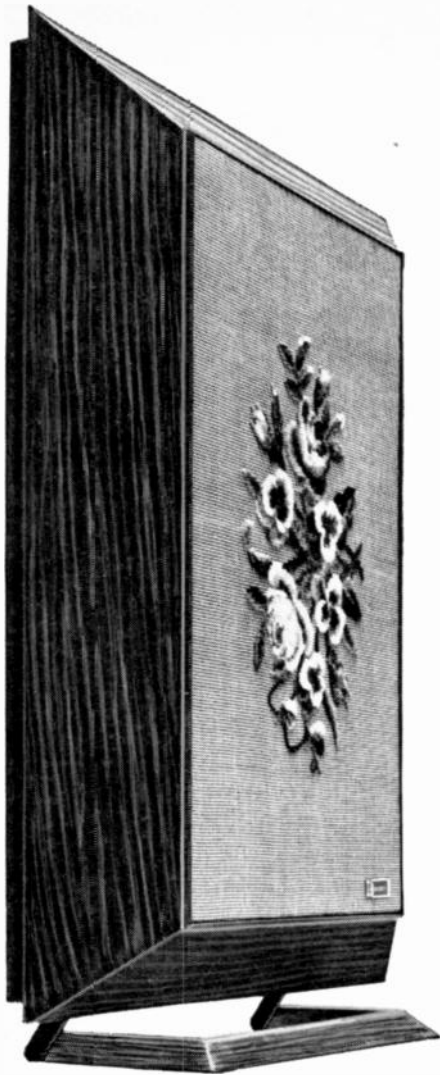
© ® **MARTIAL SOLAL:** *Vive La France! Vive Le Jazz! Vive Solal!* Martial Solal (piano), Guy Pedersen (bass), Daniel Humair (drums). *Bonsoir; Anything Goes; Flamingo; Very Fatigué; Middle Jazz; The Squirrel;* and five others. CAPITOL ST 10354 \$4.98, T 10354* \$3.98.

Interest: Superb jazz piano
Performance: Dazzling
Recording: Excellent
Stereo Quality: Excellent

Martial Solal controverts most of the prejudices concerning the national and racial origins of talented jazz musicians: he is white and Algerian-French, and he is one of the finest jazz pianists alive. This recording was made in France a few years ago, and was previously released by Capitol with the pianist's name as the title.

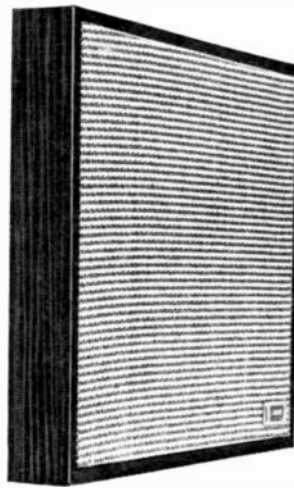
There are two kinds of music on this disc: originals by Solal with bass and drum accompaniment, and standards and jazz classics played solo. Unfortunately, I feel, the two are mixed up on each side, but it would be hard to find anything else about the disc to cavil at. The sound is superb, much improved over my older Capitol monophonic issue.

Solal's models are apparently Bud Powell, Monk, and Tatum, but he has a wit that is all his own and a truly prodigious technique that he never puts to nonmusical uses. *'Round Midnight* is given a performance that is simply beyond the reach of most jazz pianists, but of all the tracks, I must single out *Darn That Dream*. It is the closest thing I have heard to what Tatum might be playing if he were alive today (and had adapted his style to the times). It would not be true to say that I can think of no higher praise, but I can think of no pianist other than Solal to whom I could pay such a compliment. *J. G.*

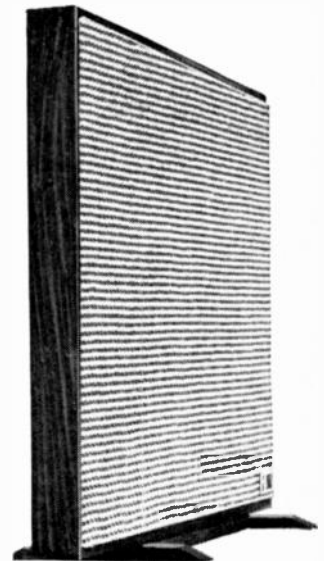


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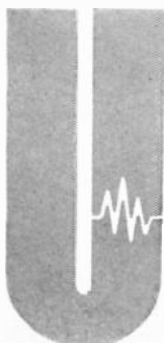
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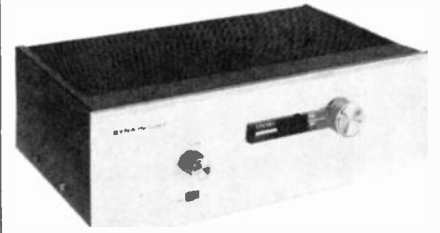
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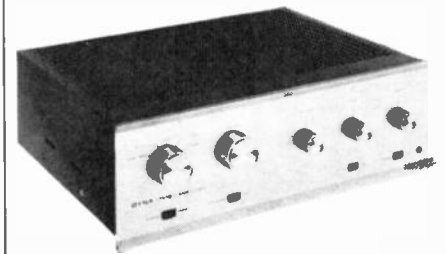
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HIFI/STEREO REVIEW'S CHOICE OF THE LATEST RECORDINGS

ENTERTAINMENT

POPS • HUMOR • FILMS • THEATER • FOLK • SPOKEN WORD

Reviewed by JOE GOLDBERG • NAT HENTOFF • PAUL KRESH • GENE LEES

⑤ ④ **GEORGE HAMILTON IV:** *Abilene*. George Hamilton IV (vocals); combo and vocal group. *China Doll; Come on Home Boy; Abilene; Tender Hearted Baby*; and eight others. RCA Victor LSP 2778 \$4.98, LPM 2778* \$3.98.

Interest: Cited country music
Performance: Agreeable
Recording: Very live
Stereo Quality: Competent

George Hamilton the Fourth is a young singer whose style is based on country music. It is, to be sure, a dilute, pop-oriented approach to the idiom, but he retains enough respect and affection for the tradition to make him an attractive performer. His voice is limited in range and its texture is unremarkable, yet he does have an easygoing and sometimes wry personality. His phrasing is unforced, and he never gives sentimental ballads a patronizing or a bathetic tone. But the arrangements here are dull, the background guitar obtrusive, and the vocal group cellophane-slick. Included in the program are several Hamilton originals, standards such as *You Are My Sunshine* and *Jimmy Brown the Newsboy*, and the wistful hit single *Abilene*. N. H.

⑤ ④ **NANCY HARROW:** *You Never Know*. Nancy Harrow (vocals); orchestra, John Lewis or Gary McFarland cond. *Autumn; Song for the Dreamer; If I Were Eve*; and nine others. ATLANTIC SD 8075 \$4.98, AT 8075* \$3.98.

Interest: Jazz singer
Performance: Not impressive
Recording: Excellent
Stereo Quality: Excellent

Miss Harrow's performance here resurrects that weary question: What's the difference between a jazz singer and a

Explanation of symbols:

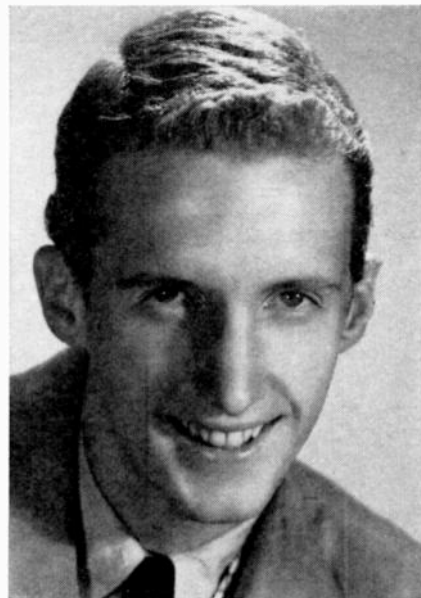
- ⑤ = stereophonic recording
- ④ = monophonic recording
- * = mono or stereo version not received for review

pop singer? Extensive scholarly research has led me to the conclusion that a jazz singer is any singer the jazz critics like. Since Miss Harrow has been called one of the greatest jazz singers in years by at least one critic, and since she does fit a certain pattern, we may therefore extrapolate a definition from her style:

1. A jazz singer uses exaggeratedly short phrases, which may or may not be caused by inadequate diaphragmatic support, but which do lead to the destruction of the melodic character of a tune. This

either, but this is clearly not her fault. John Lewis of the Modern Jazz Quartet directed the album, and seven of the twelve songs are either by Lewis or are published by his MJQ Music firm. Most of these have lyrics by Margo Guryan. They're generally pretty bad songs—not because Miss Guryan lacks talent, but because the practice of adding words to jazz instrumental numbers is a questionable one at best. The melodic lines are instrumental—not vocal—and they distort the character of the voice. Heaven protect us from these hipster tunes.

Miss Harrow receives excellent instrumental support from alto saxophonist Phil Woods, guitarist Jim Hall, and others of their caliber. G. L.



RCA VICTOR

GEORGE HAMILTON IV
Respect for country-music traditions

⑤ ④ **OLIVER NELSON:** *Full Nelson*. Oliver Nelson (alto saxophone); orchestra, Oliver Nelson cond. *Full Nelson; Skokiaan; Cool; Lila's Theme; Majorca*; and seven others. VERVE V6 8508* \$5.98, V 8508 \$4.98.

Interest: Nelson
Performance: Top pros
Recording: Good

What ever happened to the Oliver Nelson who wrote *Afro-American Sketches* and the string arrangements for Etta Jones' "So Warm" album? I suspect that he has been the arranger of too many pop sets, that he has overextended himself by accepting the many jobs that his enormous facility fits him for.

On this album, arranged, conducted, and in part composed by Nelson, and graced by his pure, lovely alto, one can hear what all this has cost him. Nelson knows more about what can be done with an orchestra than all but a very few jazz arrangers, and he can toss off glib virtuoso effects with ease, particularly when he has top New York studio-jazzmen to play them. But now it is all too clear what makes the machine go.

There are, of course, high points on the album: *Ballad for Benny*, a lovely melody reminiscent of the Alec Wilder octets, beautifully played here on the clarinet by Phil Woods. *Hoedown*, a re-scoring of one of Nelson's most successful

is called "having a highly personal approach" and "following in the great tradition of Billie Holiday."

2. A jazz singer pronounces words in a thin, coy way, whereas a pop singer tries to achieve natural enunciation. Sinatra's vowels, for example, are almost Oxonian. He is therefore not a jazz singer.

3. A jazz singer sustains terminal m's and n's, turning on, in the process, a cute little vibrato. Jazz critics like this; it irritates the hell out of me.

All of these jazz-singer characteristics will be found in Miss Harrow's album. The material she sings isn't very good,

pieces, has the most recent version of that solo Clark Terry loves to play. *Miss Fine* contains echoes of those big bands of the Forties that continue to fascinate Nelson. But the Oliver Nelson of a few years ago would have known, as the current Nelson apparently does not, that the beauty of Ellington's *Paris Blues* lies in its simplicity.

I would not be so harsh with this record, which contains things beyond the scope of most arrangers, if I were not afraid that a most valuable talent is about to cancel itself out.

J. G.

⑤ ④ **IRENE REID:** *It's Only the Beginning for Irene Reid.* Irene Reid (vocals); orchestra, George Siravo cond. *I Love Paris; Trouble Is a Man; No More in Life; Hard Hearted Hannah; Heart and Soul;* and seven others. MGM SE 4159 \$4.98, E 4159* \$3.98.

Interest: New singer
Performance: Shows promise
Recording: Good
Stereo Quality: Artificial

Irene Reid, who has been a vocalist for Count Basie, confronts the listener with a paradox on this, her first long-playing disc. On up-tempo numbers such as *I Love Paris*, she sounds like just one more of the several young gospel-influenced singers who have recently come to prominence. But the slow numbers, particularly *Through a Long and Sleepless Night*, are another matter entirely. Employing a style that owes something to Etta Jones, she reveals a sensitivity that few of her swinging sisters can duplicate. Miss Reid grows on the listener despite her mannerisms, and she will soon probably make a far better album than this. George Siravo's arrangements for organ and strings and the artificial stereo spread are no help to her here.

J. G.

④ **LITTLE RICHARD:** *Little Richard Sings Gospel.* Little Richard (vocals), unidentified accompaniment. *I'm Trampin'; Milky White Way; Coming Home; I Know the Lord; God Is Real; Precious Lord;* and six others. TWENTIETH-CENTURY FOX FXG 5010 \$3.98.

Interest: Gospel rock-and-roll
Performance: Fervid
Recording: Poor

Little Richard is a popular rock-and-roll singer of a few years back who, as is gushingly recounted on the liner of the album, has undergone a transforming religious experience and is now the Reverend Richard Penniman. To his credit, he makes little or no attempt to popularize the gospel material here—the standard organ-and-chorus accompaniment is used. But neither is there anything exceptional about the album. In *Does Jesus*

Care, Little Richard illustrates simultaneously the reason for his former great popularity and the strong debt rock-and-roll owes to gospel. But that is of slight interest to most, and the pertinent fact is that there are many gospel albums superior to this. The background has been poorly recorded, but Little Richard's solos come through well.

J. G.

RECORDING OF SPECIAL MERIT

⑤ ④ **TERI THORNTON:** *Open Highway.* Teri Thornton (vocals); orchestra, Larry Wilcox cond. *Open Highway; This Is All I Ask; Born to Be Blue;* and nine others. COLUMBIA CS 8894 \$4.98, CL 2094* \$3.98.

Interest: Superb new talent
Performance: Excellent
Recording: All right
Stereo Quality: Good

When Miss Thornton made her first appearance at New York's Basin Street East a few months ago, show-business pros had



MAL BRAVEMAN

TERI THORNTON
A natural for Broadway

only two negative criticisms: her selection of material (if it was hers) and her orchestrations, which were reworked versions of the charts written by Larry Wilcox for this album. Both criticisms apply to the album as well. Wilcox's writing is busy, at times almost overpowering the singer.

In person or on records, Miss Thornton has one of the most beautiful voices to turn up in American popular music in some years. What an instrument! It illustrates a theory of mine: while the singing of American popular music has been declining on one level, it has been moving closer to art music on another. Miss Thornton sounds as if she has been splendidly trained. And since she is a very beautiful woman, she would seem a natural for the Broadway stage, where she

would make the brass-throated insensitives of that milieu sound pretty sad.

The songs seem to have been picked for reasons of display rather than for any musical purpose. They do succeed in illustrating the broadness of Miss Thornton's stylistic range, however, as she wanders from the fashionably gospel-lesque to songs of sophistication, real or pretended. The best piece of material is Gordon Jenkins' song, *This Is All I Ask*. Jenkins has contributed a great deal of unadulterated claptrap to American popular music, but with this song he redeems himself. It is almost an art song, and therefore well fitted to Miss Thornton's talent: her singing of it sets the back of my neck to tingling.

Pianist-composer Bobby Scott contributes some beautiful piano to what is, despite some shortcomings, an impressive album by a girl who is going to be one of the greats.

G. L.

THEATER—FILMS

⑤ ④ **HERE'S LOVE** (Meredith Willson). Original-cast recording. Janis Paige, Fred Gwynne, Laurence Naismith, Craig Stevens, Valerie Lee, Paul Reed, Arthur Rubin, Cliff Hall; chorus and orchestra, Elliott Lawrence cond. COLUMBIA KOS 2400 \$6.98, KOL 6000* \$5.98.

Interest: Loud but lifeless score
Performance: Brash and ebullient
Recording: Boomy
Stereo Quality: Good

Synthetic exuberance and forced gaiety are the earmarks of this score, as broad and brassy as anything Meredith Willson ever wrote, but considerably less appealing. *Here's Love* is based on the movie *Miracle on 34th Street*, in which the real Santa Claus turns up at Macy's. But in its musical rebirth the miracle becomes tawdry, and its fatuous sentiments are set to tinny tunes. The snappy march *Big Clown Balloons* that opens the show is a rousing humdinger, but after that the songs seem to get more banal as the story unfolds, despite the exertions of a wonderful cast. There's a glimmer of amusement in *She Hadda Go Back*, a cute number about how long it takes women to get ready to leave the house—but Ogden Nash has said this better. In *Expect Things to Happen*, a noisy fantasy number, nothing does. The title song, all about Macy's telling Gimbel's and CBS' loving NBC, is a busy, frenetic affair. Most of the romantic ballads, including *My Wish* and *Look Little Girl*, sound like warmed-over reprises, and *Pine Cones and Holly Berries* is a combination that makes, as you might guess, the stickiest kind of syrup.

P. K.

(Continued on page 106)

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© ① **IT'S A MAD, MAD, MAD, MAD WORLD.** Sound-track recording. Music composed and conducted by Ernest Gold. UNITED ARTISTS UAS 5110 \$5.98, UAL 4110 \$4.98.

Interest: Sprightly movie track
Performance: Sparkling
Recording: Stunning
Stereo Quality: Excellent

Those acquainted with Mr. Gold's music only through his rather solemn scores for *Exodus* and *Judgment at Nuremberg* are in for a real surprise. The circusy overture music makes you wish you were about to see the movie, the title song is more amusing than most, and the sections that follow sustain the promise. Particularly delightful is an item called *Thirty-One Flavors*, a take-off on ballads currently popular, equating the thrills of love with the consumption of ice cream, while *You Satisfy My Soul* is an almost too skillful parody of rock-and-roll. A big, bouncy, delightful score, sparkingly conducted by the composer. P. K.

FOLK

© ① **CHARLES LEE GUY III: *The Prisoner's Dream.*** Charles Lee Guy III (vocals and guitar), Joe Maphis (guitar). *The Wall; 21 Years; Doin' My Time; Shackles and Chains; The Prisoner's Song;* and seven others. CAPITOL ST 1920 \$4.98, T 1920* \$3.98.

Interest: Forceful folk singer
Performance: Committed
Recording: Excellent
Stereo Quality: Good depth

This is the record debut of young Charles Lee Guy III, who is serving time in a California prison for involuntary manslaughter. He sent tapes of his singing and guitar playing to Capitol, who obtained permission to record him in prison, and brought along Joe Maphis to play second guitar.

The program is made up of songs dealing with prison and prison life, some of them written especially for the album by Harlan Howard and Johnny Cash. Also included is *Cold Grey Bars* by Spade Cooley, a fellow inmate of Guy's.

I think this album would be impressive even if the artist had recorded it in the most ordinary circumstances. Guy has a deep, full voice that communicates great conviction, and he plays a powerful country-blues guitar. There is nothing amateurish about his performances. That he has a personal approach is evidenced by *Cigarettes, Whiskey and Wild, Wild Women*, best known in Tex Williams' comic version, but here converted into a mournful song of regret. Of the special songs, the most interesting is Johnny

Cash's sentimentally titled *Send a Picture of Mother*. Whatever else happens to Guy, we will all be fortunate if he is recorded again. J. G.

© ① **ANITA SHEER: *Flamenco!*** Anita Sheer (vocals and guitar), Teresita Lataña (castanets and dancing), Osvaldo Bacz (dancing). *Sevillanas; Jota; Asturias; Zambrilla; Fandangos; Lercle;* and six others. WASHINGTON VM 742 \$4.98.

Interest: American flamenco
Performance: Just misses
Recording: Good

Anita Sheer is one of the few flamenco performers who is not Spanish. She is an American, but Carlos Montoya taught her flamenco guitar, and Nino Pavon taught her singing.

Miss Sheer is a superb guitarist, as she demonstrates most strikingly on the poignant *Tarantas*. Her singing, though



MERLE TRAVIS
Ingratiating in songs of the coal mines

it admirably catches the hard, flat flamenco style, lacks the necessary incandescence. I admire the devotion that goes into assimilating so well performance practices based upon alien customs and mental attitudes. But the dark passion that is the soul of flamenco has eluded Miss Sheer.

Behind a few of the pieces can be heard the sound of castanets and dancing, and Miss Sheer sometimes gives spoken introductions in the "Now we will sing a song of my country" style that is almost inevitably condescending. The sound is brilliant. J. G.

© ① **MERLE TRAVIS: *Songs of the Coal Mines.*** Merle Travis (vocals and guitar). *Black Gold; The Miner's Wife; Preacher Lane; The Browder Explosion; The Harlan County Boys;* and seven oth-

ers. CAPITOL ST 1956 \$4.98, T 1956* \$3.98.

Interest: New folk songs
Performance: Ingratiating
Recording: Excellent
Stereo Quality: Good

Merle Travis, a popular country performer, has a monochromatic intensity that makes me suspect he may have been one of Johnny Cash's models. In this album, accompanied only by his own guitar, Travis ventures into that song area now associated with Cash—songs of ordinary working people, their hopes and their troubles. Travis comes from the Kentucky coal mines, and his *Nine Pound Hammer*, already something of a classic, is about the area. He devotes this entire disc to his own songs about the mines, each selection prefaced by a short narrative background. The tragedy of the recent mine entrapment in Pennsylvania is a reminder that Travis' songs are not dated. What he has done, basically, is to adapt such general musical types as the Irish ballad and the blues to specific Kentucky situations. Travis is an ingratiating performer, but many of these songs are too pleasant or too pleasantly sung to evoke convincingly the stark reality of the mines. J. G.

RECORDING OF SPECIAL MERIT

© ① **ERIC WEISSBERG/MARSHALL BRICKMAN: *New Dimensions in Bluegrass.*** Eric Weissberg (banjo, mandolin, guitar), Marshall Brickman (banjo, guitar), Gordon Terry (fiddle), Clarence White (guitar). *Pony Express; Black Rock Turnpike; Riding the Waves; Buffalo Gals;* and fourteen others. ELEKTRA EKL 238 \$4.98.

Interest: Post-graduate banjo-picking
Performance: Brilliant
Recording: Excellent

Marshall Brickman and Eric Weissberg are in the vanguard of young city-bred banjoists who have mastered the most challenging folk techniques on that instrument. Both are trained classical musicians, but there is nothing academic about the élan and idiomatic assurance with which they improvise on the five-string banjo. In this recording, Brickman and Weissberg have based their performances on the Scruggs style of banjo picking. It is this approach that has made the banjo a driving lead instrument in Bluegrass ensembles and has also expanded its melodic capacities. Yet, as Brickman points out in the notes, Scruggs-style playing still contains some blocks to a wholly free melodic approach. A major obstacle is the fact that, in the Scruggs style, only one out of every three
(Continued on page 108)

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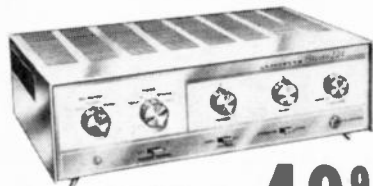
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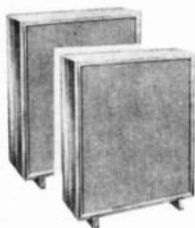


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or four notes is a melody note. In most of the tracks on this set, Weissberg and Brickman, while structuring their improvisations in the Scruggs style, have extended and elasticized that style to achieve more melodic continuity.

In this demonstration of banjo virtuosity, the two share solo duties. The surrounding instrumentation is varied but always includes at least a guitar and bass. (The bassist is not identified.) A mandolin is heard in several of the songs, and on three tracks, the sizzling fiddle of Gordon Terry joins the group. *N. H.*

SPOKEN WORD

RECORDING OF SPECIAL MERIT

© ® SHAKESPEARE: *Hamlet*. Paul Scofield, Diana Wynyard, Wilfrid Lawson. Howard Sackler, director. CAEDMON Shakespeare Recording Society S 232, 232* four 12-inch discs stereo or mono \$23.80.

Interest: Great play uncut
Performance: Brilliant
Recording: Perfect
Stereo Quality: Excellent

Without mincing words: the director and his glorious cast here turn in a *Hamlet* that is just about perfect. Sackler has avoided the chief danger, that of allowing the play to founder on its own ponderousness. While he has related the play directly to the theater, at the same time, paradoxically, he has liberated it from the theater—for, without the restrictions of the stage and the necessity of whittling the text down to a bearable length, the director can permit the drama to open out for our imaginations in all its grandeur. Nothing is cut, no value of the play is skimmed. The play proceeds from plane to plane with excitement, suspense, and a growing sense of wisdom, as powerful as if you had never heard it performed before. In the *Histoires Tragiques* of François de Belleforest (on which Shakespeare based his plot), Hamlet returns to Denmark to find his death being observed with a funeral feast, sets fire to the hall, cuts off his uncle's head, and is crowned. One almost wishes Shakespeare had written his play this way—Sackler could have done so much with these scenes for the phonograph. As it is, we must be content at the end with the sounds of swordplay and long perorations by Horatio and Fortinbras.

Scofield lets us know in the first soliloquy that we are in the company of a Hamlet who is neither affected nor dull—nor as irresolute as he is popularly conceived. Zena Walker's Ophelia similarly treads the thin line between understatement and histrionics. Edward De Sousa

is an ideal Horatio—completely the “attendant lord” to Scofield's self-centered Hamlet, and Barry Ingham an impeccable Fortinbras. Among the stunning performances turned in by others are Diana Wynyard's eloquent Queen Gertrude, Roland Culver's expansive Claudius, and Donald Huston's impetuous Laertes. As Polonius, Charles Heslop is rather more a comic caricature than seems appropriate, but he does enliven all his scenes. *P. K.*

RECORDING OF SPECIAL MERIT

© ® SHAKESPEARE: *Much Ado about Nothing*. Rex Harrison, Rachel Roberts, Zena Walker, Charles Gray, Robert Stephens, Alan Webb. Howard Sackler, director. CAEDMON Shakespeare Recording Society 206 three 12-inch discs \$17.85 stereo and mono.

Interest: Complex comedy
Performance: Delightful
Recording: Excellent
Stereo Quality: Enhancing

The plot of this aptly named farrago has been traced to an early Italian novel, written by one Matteo Bandello, that is an impenetrable maze of false accusations, feigned deaths, and double weddings. Shakespeare retained the Messina setting and complicated the plot still further, adding deceptions and intrigues as he went along. But he redeemed himself: he used the story as a scaffolding for a dazzling display of high wit and lyricism. The two most entertaining characters in the play are, of course, Beatrice and her cousin Benedick, who are inspired to reach greater heights of invective against each other at every encounter—and even at the mention of each other's names. Needless to say—especially since they both aver that they detest the institution of marriage—they are wedded at the end.

Caedmon is fortunate to have been able to bring as resourceful a pair as Rex Harrison and his wife, Rachel Roberts, together in this album. Miss Roberts is as saucy and spirited a Beatrice as anyone could wish, and Harrison, relying less on his comic falsetto than usual, steals every scene he appears in. Charles Gray makes a silkily sinister “bastard brother,” the malevolent Don John; Alan Webb is a thoroughly regal Prince of Aragon; Ronald Fraser deserves high praise for his droll Dogberry, the comic constable whose evidence puts all right; and Zena Walker is a cool and charming Hero. The portrayal by Robert Stephens of Claudio is a bit hysterical, but then Claudio is a bit of a prig and rather hard to take anyway. Director Howard Sackler keeps his scenes bustling, as usual, adds bird-song and music discreetly, and all in all makes the time pass most pleasantly. *P. K.*



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In short, the 360A is so far more perfect than the finest tube amplifier, we predict that others will hastily experiment and a rash of transistorized amplifiers will follow. But at Altec, experimentation is over! Five years of transistor amplifier production have literally put the 360A five years ahead of the home music field.

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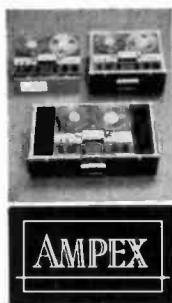


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HIFI/STEREO REVIEW



HIFI/STEREO REVIEW'S CHOICE OF THE LATEST RECORDINGS

STEREO TAPE

Reviewed by CHRISTIE BARTER • DAVID HALL

Ⓢ **BEETHOVEN:** *Egmont—Incidental Music for Goethe's Drama, Op. 81 (complete)*. Netania Davrath (soprano); Walther Reyer (speaker); Utah Symphony Orchestra, Maurice Abravanel cond. VANGUARD VTC 1669 \$7.95.

Interest: Complete tape *Egmont*
Performance: Sound
Recording: Warm
Stereo Quality: Good

The first and only stereo recording of Beethoven's score for Goethe's drama, which deals with sixteenth-century Holland's struggle against Spanish tyranny, is a welcome addition to the four-track tape repertoire. High points include the celebrated overture, two songs by Egmont's beloved Clara, and Egmont's final monolog, which culminates in the "Victory Symphony" familiar through the finale pages of the overture.

Compared to Klemperer's Angel recording of the overture, Clara's songs with Birgit Nilsson, and Clara's death scene, Abravanel's interpretation may seem lacking in dramatic intensity. But he does achieve solid sonority and lyrical warmth throughout. Netania Davrath employs the pure lyrical timbre of her voice to emphasize Clara's naïveté and sweetness, in contrast to the Fidelio-style heroic passion of Nilsson. Viennese actor Walther Reyer handles Egmont's monolog in modern, understated fashion rather than as grandiose rhetoric. Vanguard's sound is first-rate in every way. *D. H.*

RECORDING OF SPECIAL MERIT

Ⓢ **BEETHOVEN:** *Piano Sonatas: No. 11, in C-sharp Minor, Op. 27, No. 2 ("Moonlight"); No. 8, in C Minor, Op. 13 ("Pathétique"); No. 23, in F Minor, Op. 57 ("Appassionata")*. Rudolf Serkin (piano). COLUMBIA MQ 582 \$7.95.

Interest: Familiar threesome
Performance: Persuasive

Explanation of symbols:

- Ⓢ = stereophonic recording
- Ⓜ = monophonic recording

Recording: Excellent
Stereo Quality: Incidental

Though Rudolf Serkin is considered one of today's leading interpreters of the Beethoven piano concertos, he has never given much recorded time to the sonatas other than these three. This stereo remake discloses few substantial interpretive differences from his earlier recordings of the three: he continues to play this music superbly, and a little faster than anyone else. The "Moonlight" Sonata receives direct, affectionate treatment; the "Pathétique," in which he



RUDOLF SERKIN
Tonal grandeur in familiar Beethoven

takes the first-movement *da capo* literally and returns to the introduction, moves with a sure sense of style and technical bravura; and the "Appassionata" fairly explodes with dynamic brilliance and surging power. For once, too, the tonal grandeur of these performances is adequately reproduced, even to the pianist's physical assaults on keyboard and pedals during the climactic pages of the "Appassionata." If one must find fault with this release, it might be the division of the "Pathétique" between sequences: this may have been necessary on the LP pressing, but surely not on tape, especially since Serkin gets through the final Allegro in just over four minutes. *C. B.*

Ⓢ **MASCAGNI:** *Cavalleria Rusticana*. Victoria de los Angeles (soprano), Santuzza; Franco Corelli (tenor), Turiddu; Mario Sereni (baritone), Alfio; Corinna Voza (mezzo-soprano), Lucia; Adriana Lazzarini (contralto), Lola. Orchestra and Chorus of the Rome Opera House, Gabriele Santini cond. ANGEL ZB 3632 \$15.98.

Interest: One of a famous pair
Performance: Adequate
Recording: Very good
Stereo Quality: Suitable

A completely satisfying stereo recording of the Mascagni opera is needed, but this is not it. Franco Corelli, to be sure, is in fine voice, and profits from the discipline of Gabriele Santini's direction, though the tenor indulges himself to some extent in his phrasing of the final aria. Likewise, Victoria de los Angeles sings beautifully, but her less than compelling portrayal of Santuzza deprives the performance of the color and intensity it might have had. Despite her remarkable versatility, Miss De los Angeles lacks passion.

The stereo engineering is effectively three-dimensional, particularly in the choral sections, and the sound is commendably transparent. The sequence break occurs at an appropriate point, just before Turiddu's entrance, but the tape transfer is seriously marred by lengthy pauses in both sequences where the disc side-breaks interrupt the action. (The orchestral excerpts from some of Mascagni's lesser-known operas occupying the fourth side of the record version are omitted on the tape.) A libretto is available on request. *C. B.*

Ⓢ **MOUSSORGSKY:** *Boris Godounov*. Boris Christoff (bass), Boris Pimen, and Varlaam; Ana Alexieva (mezzo-soprano), Feodor; Ekaterina Gucorgueiva (soprano), Xenia; Mela Bugarinovitch (mezzo-soprano), Nurse; John Lanigan (tenor), Prince Shuisky; Dimitr Ouzounov (tenor), Grigori and Dmitri; Evelyn Lear (soprano), Marina; Anton Diankov (bass), Rangoni; Milen Paounov (tenor), Missail; Mira Kalin (mezzo-soprano), Hostess; Kiril Dulguerov

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(tenor), Simpleton. Sofia National Opera Chorus, Luben Kordov director; Paris Conservatory Orchestra, André Cluytens cond. ANGEL ZID 3633 two reels \$28.98.

Interest: First stereo Boris
Performance: Refined
Recording: Generally good
Stereo Quality: Conservative

As a documentation of the full Rimsky-Korsakov edition of Moussorgsky's masterpiece, this first complete stereo recording has many merits. I hope, however, that the *Boris* forthcoming from the Soviet Union will give us what Moussorgsky himself actually wrote—not only the harmony and instrumentation, but also the original order of the scenes (the revolution scene at the end rather than before the death of Boris), and including the St. Basil scene from the original, which can be heard on Period 1033 and Monitor 2016.

As he did on the 1952 Capitol recording, Boris Christoff sings not only the tremendous title role, but also the colorful character parts of the venerable monk Pimen and the toper-friar Varlaam. Christoff has refined his interpretation of Boris until it is perilously close to mannerism. I miss the elemental force of his earlier version, as well as some of the vocal clarity. But the intimate scenes between Boris and his children reveal Christoff's artistry at its peak. This interpretation sheds light on the subtler aspects of Boris' character, but at the expense of the drama, the conflict between Czar and people. The Polish act is well done here, in more complete form than in other recorded versions.

In the Sofia National Opera Chorus from his native Bulgaria, Christoff has more massive, if not more forceful, collaboration than ever before in such spectacles as the coronation scene, and the supporting roles are for the most part well done—especially the crafty Shuisky of John Lanigan and the opportunistic Polish Princess Marina of Evelyn Lear. The damaging lack in this performance must be traced to the podium. Cluytens brings little dramatic thrust either to the big choral scenes or to Boris' great monologs and death scene—nothing like what we hear from the late Issay Dobrowen on the 1952 discs.

Angel's stereo production is less imposing than that of, for example, London's *Salome* or *Siegfried*, but on its own conservative terms the illusions of space and depth are handled tastefully and effectively. Although the bell used in the coronation scene lacks the authenticity of the one heard on the 1952 *Boris* recording, it must be noted that the gust of wind that blows out the candle just before the Czar's collapse in the clock scene is a genuinely chilling touch.

(Continued on next page)

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The tape sonics in general are excellent, limited only by the resonance characteristics of Paris' Salle Wagram, which seems to favor the lower mid-range. *D. H.*

© RAVEL: *Daphnis and Chloë*. René Duclos Choir and Paris Conservatory Orchestra, André Cluytens cond. ANGEL ZS 36109 \$7.98.

Interest: *Daphnis* complete
Performance: Robust
Recording: Very good
Stereo Quality: Fine

This reel, one of four embracing the complete orchestral music of Ravel (exclusive of the piano concertos) performed by the Paris Conservatory Orchestra under André Cluytens, brings the number of complete tape recordings of *Daphnis* to three. And since this is an extremely good one, it is no less difficult than before to choose between them. I still prefer the Munch recording (RCA Victor FTC 2089) for tonal clarity and definition, but the Parisians impart to this music a sound quality, notably in the winds, that is unique. Generally speaking, Cluytens generates more heat than Munch does. but no greater intensity, and his orchestral color may be richer in value but no brighter. The sound is excellent throughout, and the placement of the chorus—neither too remote nor too closely miked—is just about ideal. *C. B.*

RECORDING OF SPECIAL MERIT

© SAINT-SAËNS: *Symphony No. 3, in C Minor, Op. 78 ("Organ")*. E. Power Biggs (organ); Philadelphia Orchestra, Eugene Ormandy cond. COLUMBIA MQ 573 \$7.95.

Interest: Saint-Saëns for stereophiles
Performance: Expansive
Recording: Vivid
Stereo Quality: Ideal

The outstanding Biggs-Ormandy mono recording of Saint-Saëns' "Organ" Symphony, available for some time on discs, was taped at Symphony Hall in Boston, and a stereo remake, prompted by the installation of a new organ at Philadelphia's Academy of Music, was obviously in order. This is it—a performance that not only recaptures on tape the dramatic impact of the earlier recording, but easily surpasses it in tonal breadth. Eugene Ormandy's reading of this attractive work, dear to hi-fi bugs for so many years, is (as before) suave and at times eloquent. The adagio sections of the first movement are highly expressive, the energetic allegro is infused with an intriguing sense of the macabre, and the Finale is spun out with a kind of rhythmic thrust and logic that is totally compelling. The re-
(Continued on page 115)

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corded sound is clean and not too reverberant, while stereo perspectives on the solo elements involved—organ, two pianos, *et al.*—achieve a near-perfect blend. The tape transfer is marred only by an occasional pre-echo, notably at the very outset of Mr. Biggs' magnificently played peroration. C. B.

© VERDI: *La Traviata*. Joan Sutherland (soprano), Violetta; Carlo Bergonzi (tenor), Alfredo; Robert Merrill (baritone), Germont; Miti Truccato Pace (mezzo-soprano), Flora; Paolo Pedrani (bass), D'Obigny; Dora Carral (soprano), Annina. Orchestra and Chorus of the Maggio Musicale Fiorentino, John Pritchard cond. LONDON LOG 90069 two reels \$19.95.

Interest: Verdi staple
Performance: Vocally impressive
Recording: Excellent
Stereo Quality: Effective

By the time these lines appear, Joan Sutherland will have sung her first Violettas in Philadelphia and New York. And on the evidence of this recording, audiences in those two cities will hear one of her finest portrayals. For although her diction here is about as bad as ever, the listener quickly gets the impression that Miss Sutherland is more mindful than in most of her recent recordings of the emotional range of the role she is singing and of the nature of the situation in which Violetta finds herself. There is more to this popular Verdian heroine, however, than Miss Sutherland manages to project—and it is lucidly spelled out by the music and words. For this singer, Violetta is dramatically elusive.

Vocally, of course, Miss Sutherland is absolutely right for the role, and she sings it with great appeal and artistry. But some may prefer the softer vocal timbre Anna Moffo brings to it in the only other version on tape (RCA Victor FTC 8002). Robert Merrill, the elder Germont in that one, turns in the same splendid performance for London, and is matched by the forceful, intelligently conceived Alfredo of Carlo Bergonzi. Both sing their often deleted second-act cabalettas, though neither of these restorations is as welcome as are the added verses of "Ah, fors' è lui" and "Addio del passato." Despite some occasionally erratic tempos, John Pritchard's direction combines vitality with imagination and authority to produce a well-integrated performance.

The recorded sound meets the company's usual high standard. The sound of the first act of this *Traviata* (occupying the first sequence) is so expansive that it could well have been recorded at the bottom of an indoor pool. A libretto is available without charge by return post. C. B.

ENTERTAINMENT

© TONY BENNETT: *At Carnegie Hall*. Tony Bennett (vocals); orchestra, Ralph Sharon cond. *Lullaby of Broadway; Just in Time; All the Things You Are; Stranger in Paradise*; and twenty-four others. COLUMBIA C2Q 568 \$11.95.

Interest: Bennett at his best
Performance: Assured
Recording: Very good
Stereo Quality: Effective

This Columbia twin-pack is not a coupling of previously issued material, but is all new—a concert by Tony Bennett recorded at Carnegie Hall in June of 1962. It is also the first of his tapes to confirm what his fans already know: that during a personal appearance Tony Bennett is somehow more relaxed and less given to straining for effect than in studio performance. Here he establishes



TONY BENNETT
Relaxed and intimate in Carnegie Hall

immediate contact with his audience, and gradually builds to a Dixie treatment of Cy Coleman's *Firefly* that inspires the paying customers to join in and clap hands. They are moved again, an hour or so later, to spur on in the same manner a rousing account of *De Glory Road*, the concluding number. In between these episodes are two fond tributes to Duke Ellington (*Solitude* and *I'm Just a Lucky So and So*) and Harold Arlen (*What Good Does It Do?* and *One for My Baby*), intimate appraisals of *How about You?* and *April in Paris*, a quietly seductive *Lazy Afternoon*, and Bennett's imperishable rendition of *I Left My Heart in San Francisco*. To my mind, Tony Bennett is the only male singer today who could sustain a program of this kind, one that is rivaled in recent memory only by Judy Garland's (Capitol ZWB 1659). Fine recording. C. B.

(Continued on page 117)

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⑤ **ELLA FITZGERALD AND COUNT BASIE:** *Ella and Basie!* Ella Fitzgerald (vocals); Count Basie and His Orchestra. *Honeysuckle Rose*; 'Dced I Do; *Into Each Life Some Rain Must Fall*; *Them There Eyes*; and eight others. VERVE VSTC 300 \$7.95.

Interest: Great team

Performance: At times strained

Recording: Robust

Stereo Quality: Balanced

The idea of recording Ella Fitzgerald with the Count Basie band was a natural, but the results, in their first set together, are variable. The rugged swingers on side one, spelled by a bluesy *Dream a Little Dream of Me* with Basie on the organ, sometimes substitute energy for inspiration. Ella's free-wheeling improvisations are tediously repetitious, and Quincy Jones' arrangements, though they generate a good deal of heat, are altogether too pat. The second sequence, however, offers splendid, easy-going treatments of *I'm Beginning to See the Light*, *Ain't Misbehavin'*, Basie's own *Satin Doll*, and Haven Carter's classic *My Last Affair*. In these Ella reverts to her smooth, unaffected ballad style, deftly underplaying the lyrics and embellishing the vocal line to fine effect. The sound from the band is beefy but well defined.

C. B.

⑤ **MIRIAM MAKEBA:** *The World of Miriam Makeba.* Miriam Makeba (vocals); orchestra, Hugh Masekela cond. *Dubula*; *Forbidden Games*; *Pole Mze*; *Little Boy*; and eight others. RCA Victor FTP 1227 \$7.95.

Interest: Voice of the veld

Performance: Idiomatic

Recording: Fine

Stereo Quality: Pronounced

Miriam Makeba is something of a phenomenon on the American musical scene—a Xosa tribeswoman who, by singing the songs she learned as a child in South Africa and in her late teens with touring variety shows, made good before audiences of some sophistication in New York and subsequently before the country at large on television. She has done so without compromising her standards or her ability to communicate the simple, sometimes ritualized expressions of the joys and sorrows of her people. In previous recordings she was surrounded by the conspicuous machinery of a full-scale Belafonte production. Although she has successfully resisted being absorbed by this experience, she has obviously learned as much about what sells in this country as how to sell it. Her repertoire here ranges from the chants and shouts of her native land, including *Little Boy*, a kind of high-life hymn to the Christ child, to

a number of ballads of Western derivation. (Notes on the music itself, as well as its meaning to this extraordinary artist, would have been helpful.) The recorded sound is eminently satisfying, and the discreet but appropriately exotic backing is provided by Hugh Masekela, a young trumpeter Miss Makeba met during her early days in show business.

C. B.

⑤ **ROMBERG:** *The Student Prince (excerpts).* Roberta Peters (soprano), Kathie Jan Peerce (tenor), Prince Karl Franz; Giorgio Tozzi (bass), Dr. Engel; orchestra, Franz Allers cond. COLUMBIA OQ 580 \$9.95.

Interest: Studio revival

Performance: Spirited

Recording: Very good

Stereo Quality: Serviceable

It is easy to see why *The Student Prince* had the long Broadway run it did in the mid-Twenties—over six hundred per-



ROBERTA PETERS

New life for some overworked Romberg

formances—and why it remains today the most beloved of all the Sigmund Romberg operettas. It has everything, short of real "b'zazz," that goes into the making of a modern musical. Producers James Fogelsson and Thomas Z. Shepard have properly chosen to do it straight, and have assembled a splendid cast to bring the much overworked score to vibrant (synopsized) life. These highlights of course include the well-known *Drinking Song* and *Gaudemus Igitur*, the ever-popular *Serenade* ("Overhead the moon is beaming"), and the duet *Deep In My Heart*. Roberta Peters and Jan Peerce are both in fine voice, the latter conveying a youthful ardor that seems to be perennial. Anita Darian and Lawrence Avery likewise share a tender moment singing *Just We Two*. The voices are fairly closely miked, but aural perspectives are nicely balanced throughout. Highly recommended.

C. B.

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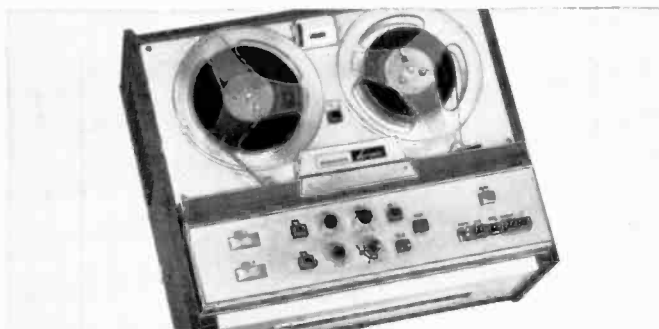
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PHOTOGRAPHED IN NEW YORK SHOWROOM OF DUX INCORPORATED

**WHO WANTS TO
SEE A TAPE RECORDER
IN A LIVING ROOM**

**?
YOU DO
(if it's Miranda®!)**



Two magnificent new stereo tape recorders featuring major electronic advances... plus the beauty of genuine teakwood cabinetry!

MIRANDA Sorrento Sophisticated solid-state circuitry, comprising an impressive array of 21 transistors and 19 diodes. Electronic matrix-type push-button switching positively and instantaneously controls every mode of tape transport. Tape-handling mechanism includes automatic tape lifters and tension bars. Other features include: built-in 4" x 6" full range dual speakers, automatic shut-off for motors and amplifiers, three motors plus servo motor for remote control, illuminated VU meters, pause switch, electronic switching delay, 3¾ and 7½ ips., records and plays 4-track stereo. *Priced at \$400.00*

MIRANDA Nocturne Hysteresis synchronous motor assures unflinching constancy in tape movement. Smoothly operating push-button controls make it a pleasure to operate. Each channel is provided with individual volume and tone controls, VU meter, two input jacks, output jacks for external speakers. Single switch allows the Nocturne to be used for either stereo or mono playback. Ten clean actual watts of audio power (5 per channel) plus matched 4" x 6" speakers give rich, full-bodied reproduction. The Nocturne records and plays 4-track stereo and mono in 1⅞, 3¾ and 7½ ips. *Priced at \$250.00*

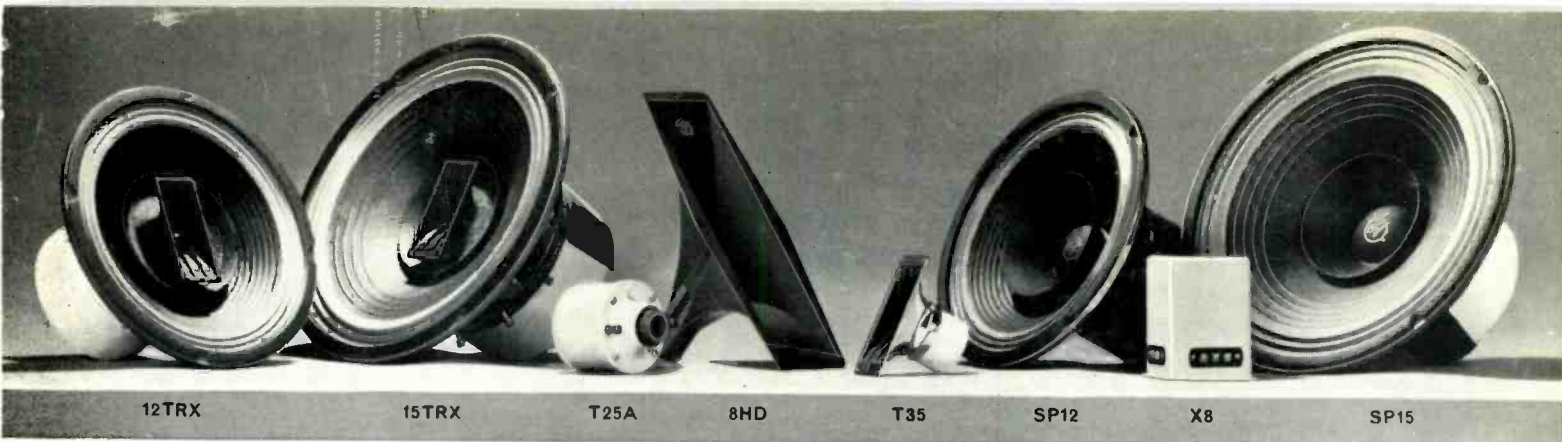
SORRENTO REMOTE CONTROL: All tape transport controls plus separate channel volume controls, and 16 ft. cable. *Priced at \$35.00*

At last . . . the first truly practical design in tape recorders. Miranda is housed in genuine teakwood cabinetry that blends with and enhances any decor. No glaring chrome trim . . . no jagged outline disturbs its simple, classic elegance. More than a fine tape recorder, Miranda is also a fine piece of furniture that you can display with pride. Write for free literature to Dept. HFSR-2.



ALLIED IMPEX CORPORATION, 300 PARK AVENUE SOUTH, NEW YORK 10, NEW YORK • CHICAGO 45, ILLINOIS • DALLAS 7, TEXAS • LOS ANGELES 16, CALIFORNIA

CIRCLE NO. 3 ON READER SERVICE CARD



A Return to the Fundamental Concept of High Fidelity: SOUND OF UNCOMPROMISING QUALITY!

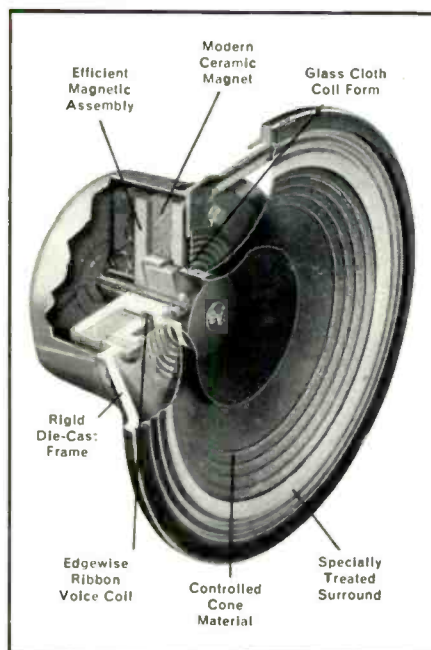
Before you make the final choice of speakers for your high fidelity system, take a moment to review your goals. What comes first—size, cost, or performance? If performance is of prime importance, then you owe it to yourself to look at—and listen to—Electro-Voice Deluxe component speakers. Granted, they are not the smallest or the least expensive speakers you can buy, but their design is predicated on the need for quality reproduction above all other considerations.

Your ear is the final arbiter of speaker system quality, but it may help you to know what's behind the unequalled popularity of E-V in the component speaker field. It begins with the finest engineering laboratory in the industry, finest not only in equipment, but also in the size of its staff and in its creative approach to electro-acoustics.

The basic design for E-V Deluxe components was laid down over a decade ago, and, despite numerous detail improvements, this approach is just as valid today. It begins on a firm foundation: the rigid die-cast frame that provides a stable basis on which this precision instrument can be assembled. It is this frame that assures that each E-V Deluxe speaker will forever maintain its high standard of performance by maintaining perfect alignment of all moving parts.

Added to this is a magnetic assembly of generous proportions that provides the "muscle" needed for effortless reproduction of every range at every sound level. In the case of the SP15, for example, four pounds, ten ounces of modern ceramic magnet (mounted in an efficient magnetic assembly weighing even more) provides the force needed for perfect damping of the 15-inch cone.

Within the gap of this magnetic system rides the unique E-V machine-wound



edgewise-ribbon voice coil. This unusual structure adds up to 18% more sensitivity than conventional designs. Production tolerances on this coil and gap are held to $\pm .001$ inch! The voice coil is wound on a form of polyester-impregnated glass cloth, chosen because it will not fatigue like aluminum and will not dry out (or pick up excess moisture) like paper. In addition, the entire voice coil assembly can be made unusually light and rigid for extended high frequency response.

In like manner, the cone material for E-V Deluxe components is chosen carefully, and every specification rigidly maintained with a battery of quality control tests from raw material to finished speaker. A specially-treated "surround" supports the moving system accurately for predictably low resonance, year after year, without danger of eventual fatigue. There's no breaking-in or breaking down!

Now listen—not to the speaker, but to the music—as you put an E-V Deluxe component speaker through its paces. Note that bass notes are neither mushy nor missing. They are heard full strength, yet in proper perspective, because of the optimum damping inherent in the E-V heavy-magnet design.

And whether listening to 12-inch or 15-inch, full-range or three-way models, you'll hear mid-range and high frequency response exactly matched to outstanding bass characteristics. In short, the sound of every E-V Deluxe component speaker is uniquely musical in character.

The full potential of E-V Deluxe component speakers can be realized within remarkably small enclosure dimensions due to their low-resonance design. With ingenuity almost any wall or closet can become a likely spot to mount an E-V Deluxe speaker. Unused space such as a stairwell can be converted to an ideal enclosure. Or you may create custom cabinetry that makes a unique contribution to your decor while housing these remarkable instruments. The point is, the choice is up to you.

With E-V Deluxe component speakers you can fit superlative sound to available space, while still observing reasonable budget limits. For example, a full-range speaker such as the 12-inch SP12 can be the initial investment in a system that eventually includes a T25A/8HD mid-range assembly, and a T35 very-high-frequency driver. Thus the cost can range from \$70.00 up to \$220.00, as you prefer—and every cent goes for pure performance!

Write today for your free Electro-Voice high fidelity catalog and list of the E-V audio specialists nearest you. They will be happy to show you how E-V Deluxe component speakers fulfill the fundamental concept of high fidelity with sound of uncompromising quality!

ELECTRO-VOICE, INC.
Dept. 244F, Buchanan, Michigan

