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volume 7 number 9

The cover design, attuned to autumn's audio shows, is by Antonio Frasconi

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Taxonomical Problem

SIR:

Mr. Ludwig Misch, in his letter in the June issue of HIGH FIDELITY, poses a very interesting taxonomical problem when he advocates the inclusion of the chambermaid Dolores in *Cosi* fan tutte among the operatic doctors. Unfortunately, I overlooked this talented chambermaid in my survey of the field. The survey was not meant to be encyclopedic, for that would have been unwieldy, and several operatic medicos were slighted, among them the doctors in Gounod's Le médecin malgré lui and Britten's Peter Grimes.

To return to the chambermaid: she poses as a mesmerist and does a right excellent job both in sparking the opera and lampooning the medical profession, but yet is known as a fraud to everyone in the theater except the two principal sopranos. Even her patients are fraudulently ill. Under these circumstances it would be an invasion of the unique rights of the operatic medical brotherhood to admit her; the Class II doctors (quacks) would be especially outraged because their uniquity is the most unique, depending as it does on specialized quackery in medicine only. This Dolores the chambermaid, you must remember, poses as a notary later in the opera, so that she is something of a chameleon and altogether untrustworthy. If her role were to be projected on a straight line towards infinity, she might turn up as a Roman senator, a commander of Janissaties, or even (Heaven forbid!) a barber.

In regard to Franz Anton Mesmer, he was at the height of his stormy career and fleeing the wrath of the French Revolution when Cosi was first produced in 1790. I doubt that he would have appreciated Mozart's Dolores, however. Mesmer took himself and his animal magnetism quite seriously and for this reason I thank my stars that he was not an operatic

Continued on page 8

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LETTERS

Continued from page 4

physician — there would have been a problem in classification! Sol London, M. D. Detroit, Mich.

Where's Meyerbeer?

SIR:

Say, where's Meyerbeer? Here we are, a whole new generation, and we're not yet wise to his "theatric claptrap"; not in the least tired of any of his operas. How can we be? We've not been allowed more than a fleeting glimpse of any of them. . . . To witness a restaging of one of his operas is probably too much to hope for. But Meyerbeer's operas on records are something else again. Of course, they would require elaborate engineering ... but I understand that hi-fi technicians enjoy challenges of this sort. Then the operas would need great singers. Well, we've got them.

From where we sit, here on our little pink cloud, we can see Callas and Tebaldi, declaring a truce and collaborating on Queen Margaret and Valentine in Les Huguenots. Siepi (who has already practiced "Piff, paff") is the Marcel. Del Monaco trumpets Raoul's part. Simionato whirls through the coloratura of Urbaine's arias. Gobbi and Bastianini complete the seven-star cast. And lo! there in the orchestra are the required ten harps and a viola d'amore. Further more, all five acts are being recorded, complete. Anyone else want to pull up a cumulus and sit down?

From an adjacent cloud we have a fine view of a recording session of *Le prophète*. Ebe Stignani is doing a motherly job as Fides. Who else but Del Monaco as her son John of Leyden? Piled up in the corner are a few sticks of dynamite for the finale.

By crossing over a couple of mists and a haze, we find ourselves previewing a session of *L'Africaine*. There's Jussi Bjoerling giving Vasco's arias a silver polishing.

When we look off in the foggy distance we can discern two conductors. One is directing an orchestral rehearsal of *Robert the Devil*; the other is studying the score of *Dinorab*.

Harry Peterson Huntington, W. Va.

See Andrew Porter's "Notes from Abroad," Aug. 1957, for speculations on this same theme. — ED.

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SIR:

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> Donelson R. Manley 5602 "I" Street Little Rock, Ark.

Sound vs. Music

SIR:

Your correspondent, Mrs. Perry S. Ury, expressed an unusually sensible view of high fidelity. So did your Audio Forum editor in his reply to Irwin B. Pollner. Good sense was shown too, by Fred A. Wild in his comments on the John Ball article, "Love Letter to an Old Speed." All three letters link up, in a way, into an indictment of the, I am afraid, large body of high-fidelity addicts who are in fact sound lovers rather than music lovers. Good reproduction, of course, is not to be disparaged, but the individual who is at least musically fastidious, if not altogether erudite in that sphere, will experience pleasure from the work and its rendition, inferior recording, pops, and crackles notwithstanding. Except in the very worst of cases, these disturbances are no less endurable than the inconsiderate conversations, coughs, sneezes, program rustlings, foot shufflings, and sear changings which are incidental to the run of musical events in America. Even outmoded recording is often preferable to the type of "live" concert which reaches the audience via amplifiers and loudspeakers of such power that the live original is submerged in the mechanical din.

For the sake of the artistry I have retained a large number of 78s in my collection, and scores of them are pre-electric recordings of incomparably fine voices used with measures of taste and skill not often encountered today. Some of the

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I'm about to buy a High Fidelity Amplifier, but unfortunately. I hardly know a condenser from a resistor. One of my friends has a Newcomb. Since I odmired the tone of his system so much he urged mo

I do want a really good amplifier but everyone I talk to. seems to have a different idea of what makes one good. Can you help me? Also, would you please recommend one of yours you think would please me?



If I could give you a simple fuolproof answer to the complex question of "what makes one amplifier better than another", I'm alraid I would have to be a lot younger than I am. It's just not that simple. Time has taught me the fallocy of judging an amplifier on any one feature, much less decide for our instruments has ever been able to accurately predict our enjoyment of the sound of a product. Every design must ultimately be judged by ear and in the light of the tasts of the class of buyer for whom it was designed. Each year gives me more respect for the marvelous ability of the lactors that control the source flat the best our meters can do is measure individually only those few factors the industry has learned how to measure. Measurements alone can and often do betray even the engineer if he places excessive reliance upon them alone.

It's the way the engineer balances all the elements of design for the use intended that, in a large measure, determines the ultimate morit of the product. There is an art to this that is not automatically learned with the ability to read schematics or make measurements. To most it comes only alter they have worked at the job long enough to learn by bilter experience the limitations of their instuments. Some never learn it. As in art, all counct be masters.

ments. Some never learn it. As in art, all cannot be masters. To further complicate the problem, each individual places emphasis on different things when judging an amplifier's value to him. Yet, there are innumerable places in an amplifier where the time and money special are not obvious but which none the less contribute to the overall merit of the product when considered from all angles. It is the degree to which a manufacturer is willing to devote his time and money special of the design to the class of consumer for whom it is produced that actually makes one amplifier better than another for a specific purchaser. Only you can properly pass judg-ment on that which is in satisfy you. Just as you would be foolfsh to allow your neighbor, who may be thoroughly satisfied with a Chevrolet, to influence you if, by your very nature, you will actually satisfied with nothing less than a Cadillae. Both are good products but each offers its greatest value to the class of owner for which it was conceived. In today's competitive market, no manufacturer can afford to charge more than his product is worth. The best is never the cheapest. If you really seek the best, look for it among the products priced accordingly. Then pass judgment by relying on your own ears and upon the reputation and experience of the manufacturer. If the has consistently produced quality equipment, has proven his reliability over the years, and if his product passes your personal tests for listening quality and personal appead, then his is probably the best mamplifier. . for you. If you will approach the problem in this manner, even though, as you say, you "hardly know a con-denser from a tube", you are prefly sure to be pleased.

Lalmost forgot, you asked me to recommend a specific model that I fell sure would satisfy you. From your letter, I can only conclude that you are a true perfectionist at heart so I doubt if you will ever be fully satisfied until you own one of our Laboratory Standard Models, either the Classic 2500 or the Classic 2500-R (remote controlled model) like your friend owns. However, even perfectionists must occasionally accept something less costly. If this should be your case, I believe our Compact 1020 is the closest approach to the ultimate you seek at a saving worth considering.

Thanks for writing and give my regards to your friend.

Sincerely yours,

Bos Newcomb

The Newcomb Compact 1020 Power he Newcomb Compact 1020 Power Amplifier and Pre-amplifier is a globen example of Concentrated Quality. Value, flexibility, dependability, low divortion, and beauty make the 1020 the finest unit made in the compact field. Drn't regret tate flax you didn't hear the Compact 1020 before you made up your mind.

C.F. TO

Mr. Newcomb is founder and President of NEWCOMB AUDIO PRODUCTS Co., Hollywood's leading manufacturer of precision products for the control and amplification of sound... since 1937! Mr. Newcomb will be happy to answer your questions about high fidelity amplifiers if you will write to him at

> NEWCOMB AUDIO PRODUCTS CO. Doppertment W-9 6824 Lexington Avenue Hollywood 38, California

LETTERS

Continued from preceding page

old records have values of other sorts. Such considerations as performances by the creators of the roles, or performances by or under the direction of the composers, endow the records with definitive attributes. The highfidelity radio stations could educate the blare-and-blast brethren to the musical values resident in the older records by programing them briefly each week under the guidance of informed and inspired instructors.

Al Franck Richmond Hill, N. Y.

Concern for Conductors

Sne:

I read, with interest, Herbert Kupferberg's article on Markevitch, in the May issue.

It brought to my mind that recently I have read quite a lot about conductors, their worth and their ability, but most of all the future scarcity of them. I'm wondering if RCA development of the TV tape recorder will make it easier for those interested to study different conductors and their techniques. There are people like me, who are interested in conducting, not necessarily wanting to be conductors ourselves, but just wanting to know as much as possible about this facet of music.

In the April issue of HIGH FIDEL-ITY, Andrew Porter's article about Sir Adrian Boult brings out the point that Sir Adrian is a direct conducting descendant of Nikisch. Nikisch is said, by some, to have been the greatest ever. The passing of Toscanini, the retirement of Bruno Walter, plus the fact that many of the greatest names in the conducting field are of advanced age and ready to follow Walter into retirement, makes me sorry that more recording companies have not followed the lead of Columbia and Westminster in recording the conductors in rehearsal. Books on the subject are few, in fact there are more books on conducting out of print, now, than there are in print. Max Rudolf's Grammar of Conducting goes into great detail and it gives a very full account of the subject. Gehrken's Essentials in Conducting is shorter but it's good. But in this area a book can't do what the record and motion

Continued on page 16

Improve your own music system with a superb new ESL cartridge and arm

ESL PROFESSIONAL SERIES ARM & CARTRIDGE

Breathtaking perfection of reproduction for the most critical broadcast, recording, and laboratory use is now made possible by this superlative reproducer. The ultimate in compromise-free design, plus matchless Danish hand craftsmanship. The precision machined, ball bearing arm fits this cartridge only.

Frequency response: 10-30,000 + cps + IM distortion: alwost immeasurably small + Minimum compliance: $6.8 \times 10^{-6} cm/dyne + Dynamic mass: .001 grants + Vertical larce; <math>1-3$ grants Dutput impedance: 1.5 OHMS + Minimum output vollage: 2.0 snv (1 kc at 10 cm/sec)

ESL-310 arm (15%") without cartridge \$57 Diamondstylus: ESL-P1 (.001"), P2.5 (.0025"), P2.7 (.0027"), P3 (.003") \$49.50

ESL CONCERT SERIES CARTRIDGE

The most advanced electronic technology and mechanical skills have devised this magnificent instrument which can improve the finest music reproducing systems. Used for quality control by leading record manufacturers. It greatly prolongs record and stylus life, and will fit any standard mounting arrangement.

Frequency response: 16-30,000+ cps • IM distortion: almost immeasurably small • Minimum compliance: 6.8 x 10-6 cm/dyne • Drnamic mess: .001 grams • Vertical force: 2-6 grams Dutput impedance: 1.5 Ohms • Minimum output voltage: 1.5 mv (1 kc at 10 cm/sec)

Diamond stylus ESL-C1 (001") or ESL-C3 (003")\$35.95

ESL/BJ 'SUPER 90' TANGENTIAL ARM

Highly improved, studio model of the world-famous BJ tangential arm which overcomes tracking error, reduces distortion, and increases record life. Self-lubricating ball bearings insure frictionfree movement: twin arms virtually cancel resonances. Complete with two plug-in heads accommodating almost all cartridges, including turnover and triple-play models. Counter-weights variable over 40-gram range. Calibrated pedestal permits instant selection of correct stylus overhang. Made in England under the personal supervision of its inventor.

ESL/BJ'Super 90/12'(125") \$33 • ESL/BJ'Super 90/16'(14") \$36.50

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The ESL cartridge requires with some amplifiers a high quality ESL voltage step-up transformer (or ESL transistor amplifier): the 201 Series for low level magnetic inputs, 301 Series for low or high level magnetic inputs, or the 211 with insensitive amplifiers.

ESL-201 Shielded, unmounted transformer; 1:11 voltage step-up \$7,50 ESL-201 M An ESL-201, mounted and wired for plug-in connection \$11 ESL-201F Same as 201 M, plus supersonic filter and switch \$15 ESL-301 Shielded, unmounted transformer; 1:30 voltage step-up \$9 ESL-301 M An ESL-301, mounted and wired for plug-in connection \$12.50 ESL-301F Same as 301 M, plus supersonic filter and switch \$16.50 ESL-301F Same as 301 M, plus supersonic filter and switch \$16.50 ESL-211 Shielded, unmounted transformer; 1:244 voltage step-up \$6.25

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HERE'S ALL YOU NEED



to build your own





HEATHKIT HIGH FIDELITY FM TUNER KIT

HEAT

This FM tuner is your least expensive source of high fidelity material! Stabilized oscillator circuit assures negligible drift after initial warmup. Broadband IF circuits assure full fidelity, and 10 microvolf sensitivity pulls in stations with full volume. High-gain cascode RF amplifier, and automatic gain control. Ratio detector gives high-efficiency demodulation. All tunable components prealigned. Edge-illuminated dial for easy tuning. Here is FM for your home at a price you can afford. Shpg. Wt. 7 lbs.

MODEL FM-3A \$25.95 (with cabinet)

H1_FI

HEATHKIT BROADBAND AM TUNER KIT

This tuner differs from an ordinary AM radio in that It has been designed especially for high fidelity. The detector uses crystal diodes, and the IF circuits are "broadbanded" for low signal distortion. Sensitivity and selectivity are excellent. Quiet performance is assured by 6 db signal-to-noise ratio at 2.5 uv. All tunable components prealigned. Incorporates AVC, two outputs, and two antenna inputs. Edge-lighted glass slide rule dial for easy tuning. Your "best buy" in an AM tuner. Shpg. Wt. 8 lbs.

MODEL BC-1A \$25.95 (with cabinet)

HEATHKIT "MASTER CONTROL" PREAMPLIFIER KIT

This unit is designed to operate as the "master control" for any of the Heathkit Williamson-type amplifiers, and includes features that will do justice to the finest program material. Frequency response within $\pm 1\frac{1}{2}$ db from 15 to 35,000 CPS. Full equalization for LP, RIAA, AES, and early 78's. Five switch-selected inputs with separate level controls. Bass and treble control, and volume control, on front panel. Very attractively styled, and an exceptional dollar value. Shpg. Wt. 7 lbs.

MODEL WA-P2 \$19.75 (with cabinet)

HEATHKIT "BASIC RANGE" HIGH FIDELITY SPEAKER SYSTEM KIT

The very popular model SS-1 Speaker System provides amazing high fidelity performance for its size because it uses high-quality speakers, in an enclosure especially designed to receive them.

It features an 8" mid-range-woofer to cover from 50 to 1600 CPS, and a compression-type tweeter with flared horn to cover from 1600 to 12,000 CPS. Both speakers are by Jensen. The enclosure itself is a ducted-port bass-reflex unit, measuring 11%" H x 23" W x 11%" D and is constructed of veneer-surfaced plywood, %" thick. All parts are precut and predrilled for quick assembly.

Total frequency range is 50 to 12,000 CPS, within ±5 db. Impedance is 16 ohms. Operates with the "Range Extending" (SS-1B) speaker system kit later, if greater frequency range is desired. Shpg. Wt. 30 lbs. MODEL SS-1 \$39.95

HEATHKIT "RANGE EXTENDING" HIGH FIDELITY SPEAKER SYSTEM KIT

The SS-1B uses a 15" woofer and a small super-tweeter, to supply very high and very low frequencies and fill out the response of the "Basic" (SS-1) speaker system at each end of the audio spectrum. The SS-1 and SS-1B, combined, provide an overall response of ± 5 db from 35 to 16,000 CPS. Kit includes circuit for crossover at 600, 1600 and 4000 CPS. Impedance is 16 ohms, and power rating is 35 watts. Measures 29" H x 23" W x 17½" D, and is constructed of veneer-surfaced plywood, $\frac{3}{4}$ " thick. Easy to build! Shpg. Wt. 80 lbs.

MODEL SS-1B \$99:95

... and save!



"BASIC" SPEAKER SYSTEM



RANGE EXTENDER

"LEGATO" SPEAKER SYSTEM

HEATHKIT "LEGATO" HIGH FIDELITY SPEAKER SYSTEM KIT

The fine quality of the Legato Speaker System Kit is matched only in the most expensive speaker systems available. The listening experience it can bring to you approaches the ultimate in esthetic satisfaction.

Frequency response is ± 5 db 25 to 20,000 CPS. Two 15" theater-type Altec Lansing speakers cover 25 to 500 CPS, and an Altec Lansing high frequency driver with sectoral horn covers 500 to 20,000 CPS. A precise amount of phase shift in the crossover network brings the high-frequency channel into phase with the low-frequency channel to eliminate peaks or valleys at the crossover point. This is one reason for the mid-range "presence" so evident in this system design.

The attractively styled "contemporary" enclosure emphasizes simplicity of line and form to blend with all furnishings. Cabinet parts are precut and predrilled from ¾" veneersurfaced plywood for easy assembly at home. Impedance is 16 ohms. Power rating is 50 watts for program material. Full, smooth frequency response assures you of outstanding high fidelity performance, and an unforgettable listening experience. Order HH-1-C (birch) for light finishes, or HH-1-CM (mahogany) for dark finishes. Shpg. Wt. 195 lbs.

MODELS HH-1-C or HH-1-CM \$325.00 each



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HEATHKITS

World's finest electronic equipment in kit form...



25-WATT AMPLIFIER



ELECTRONIC CROSSOVER

easy-to-build designs by HEATH insure

70-WATT AMPLIFIER

You get more comprehensive assembly instructions, higher quality circuit components, and more advanced design features, when you buy HEATH hi-fi!

HEATHKIT 70-WATT HIGH FIDELITY AMPLIFIER KIT

This new amplifier features extra power reserve, metered balance circuit, variable damping, and silicon-diode rectifiers, replacing vacuum tube rectifiers. A pair of 6550 tubes produce full 70-watt output with a special-design Peerless output transformer. A quick-change plug selects 4, 8 and 16 ohm or 70 volt output, and the correct feedback resistance. Variable damping optimizes performance for the speaker system of your choice. Frequency response at 1 watt is = 1 db from 5 CPS to 80 KC with controlled HF rolloff above 100 KC. Harmonic distortion at full output less than 2%. 20 to 20,000 CPS, and intermodulation dis tortion below 1% at this same level. Hum and noise are 88 db below full output. Variable damping from .5 to 10. Designed to use WA-P2 preamplifier. Express only. Shpg. Wt. 50 lbs. MODEL W-6M \$109.95

HEATHKIT 25-WATT HIGH FIDELITY AMPLIFIER KIT

The 25-watt Heathkit model W-5M Is rafed "best buy" in its power class by independent critics! Faithful sound reproduction is assured with response of ± 1 db from 5 to 160.000 CPS at 1 watt, and harmonic distortion below 1% at 25 watts, and IM distortion below 1% at 20 watts. Hum and noise are 99 db below rated output, assuring quiet, hum-free operation. Output taps are 4, 8 and 16 ohms. Employs KT66 tubes and Peerless output transformer. Designed to use WA-P2 preamplifier. Express only. Shpg. Wt. 31 lbs. MODEL W-5M \$59.75

HEATHKIT ELECTRONIC CROSS-OVER KIT

This device separates high and low frequencies electronically, so they may be fed through two separate amplifiers driving separate speakers. The XO-1 is used between the preamplifier and the main amplifiers. Separate amplification of high and low frequencies minimizes IM distortion. Crossover frequencies are selectable at 100. 200, 400, 700, 1200, 2000, and 3500 CPS. Separate level controls for high and low frequency channels. Attenuation is 12 db per octave. Shpg. Wt. 6 lbs.

MODEL XO-1 \$18.95

HEATHKIT W-3AM HIGH FIDELITY AMPLIFIER KIT

Features of this fine Williamson-type amplifier include the famous Acrosound model TO-300 "ultralinear" transformer, and 5881 tubes for broad frequency response, low distortion, and low hum level. Response is ±1 db from 6 CPS to 150 KC at 1 watt. Harmonic distortion is below 1% and IM distortion below 1.3% at 20 watts. Hum and noise are 88 db below 20 watts. Hum and noise are 88 db below 20 watts. Provides output faps of 4, 8 or 16 ohms impedance. Designed to use WA-P2 preamplifier. Shg. Wt. 29 lbs. MODEL W-3AM \$49.75

HEATHKIT W-4AM HIGH FIDELITY AMPLIFIER KIT

A true Williamson-type circuit, featuring extended frequency response, low distortion, and low hum levels, this amplifier can give you fine listening enjoyment with a minimum investment. Uses 5881 tubes and a Chicago-standard output transformer. Frequency response is ± 1 db from 10 CPS to 100 KC at 1 watt. Less than 1.5% harmonic distortion and 2.7% intermodulation at full 20 watt output. Hum and noise are 95 db below full output. Transformer tapped at 4.8 or 16 ohms. Designed to use WA-P2 preamplifier. Shipped express only. Shpg. Wt. 28 lbs. MODEL W-4AM \$39.75

HIGH FIDELITY MAGAZINE



W-3AM 20-WATT AMPLIFIER



A-9C 20-WATT AMPLIFIER



W-4AM 20-WATT AMPLIFIER



HEATHKITS

World's finest electronic equipment in kit form...

ATIIKITS FOR 193

...top HI-FI performance

HEATHKIT A-9C HIGH FIDELITY AMPLIFIER KIT

This amplifier incorporates its own preamplifier for self-contained operation. Provides 20 watt output using push-pull 6L6 tubes. True high fidelity for the home, or for PA applications. Four separate inputs—separate bass and treble controls—and volume control. Covers 20 to 20,000 CPS within ± 1 db. Output transformer tapped at 4, 8, 16 and 500 ohms. Harmonic distortion less than 1% at 3 db below rated output. High quality sound at low cost! Shpg. Wt. 23 lbs. MODEL A-9C \$35.50

HEATHKIT A-7D HIGH FIDELITY AMPLIFIER KIT

This is a true high fidelity amplifier even though its power is somewhat limited. Built-in preamplifier has separate bass and treble controls, and volume control. Frequency response is $\pm 1\frac{1}{2}$ db from 20 to 20,000 CPS, and distortion is held to surprisingly low level. Output transformer tapped at 4, 8 or 16 ohms. Easy to build, and a fine 7-watt performer for one just becoming interested in high fidelity. Shpg. Wt. 10 lbs. MODEL A-7D \$17.95

Model A-7E: Same as the above except with extra tube stage for added preamplification. Two switch-selected inputs, RIAA compensation, and plenty of gain for low-tevel cartridges. Shpg. Wt. 10 lbs. \$19.95

HOW TO ORDER

Just identify the kit you desire by its model number and send check or money order to address below. Don't hesitate to ask about HEATH TIME PAYMENT PLAN.

Pioneer in "do-il-yourself" electronics		8. C -	
A subsidiary of D	aystrom, Inc.		
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high fidelity is the ultimate



The all new S:1000 II 20 watt amplifier

Only Sherwood tuners feature 0.95 µv FM-sensitivity!

	Sherwood 5-1000 II 5 99.50	► \$ 99.95	co \$109.95	05.9015 C	G \$115.00	m \$ 39.75	- \$ 95.00	en \$124.50	± \$139.50	- \$ 59.50	- 5 99.50	× \$124.50
Feedback tone controls	V		V	•	V	V	V		V		V	
EF86 low-noise preamp, tube	~						•					
Presence-rise control	V		•			•		V				
Tape-head equalization	V	V	V		V		\checkmark		V	V	•	
Inputs, selectable at front panel	6	5	5	4	6	4	5	5	6	5	4	5
Microphone equalization	V								V		•	V
Tape-monitor switch	10				V	V	•				•	
Damping-factor selection	V				V			V				V
IM distortion at 20 watts	1.0	1.0	1.0	1.4	1.0	2.0	2.0	1.2	1.6	1.5	2.4	2.0
12db/oct. scraich filter	V		V	V	V			18.1	V	V		
12db/oct_rumble filter	\sqrt{e}		V	10	V	V	V		V	V	V.	V
Cathode-follower recording output	V			V			V	V	1			
Phono sensitivity (mv) for full output	3	6	5	6	5	5	6	12	5	3	10	15
Unused inputs shorted to prevent crosstalk	1				1	1		12	10	1		1

"Data is manufacturers' published specifications for current "flat-cabinet" amplifiers (20 or more wattsfi

Technical literature available on request. Write Dept. H-9.



LETTERS

Continued from page 10

picture or electromagnetic recorded picture can do.

I think more can be done along these lines that would interest some younger musicians — and who knows it might make it easier to comprehend this complicated profession, without running the chance of some time in the future mass producing a lot of dogmatic conductors. The man with the baton was, I think, born with 90% of his talent.

> Lewis Meister Hermiston, Ore.

AUTHORitatively Speaking

Sylvia Wright, who cannot quite adapt her housecleaning pace to the rhythms of the Metropolitan Opera broadcasts - see "Excuse my Dust. Donizerri," page 50 is a writer of humor who has two ambitions. One is to stop, however briefly, writing humor and write something deep. solemn, soul-searching, squalid, and avant-garde. We can't do anything about that. The other is to be ageless and mysterious. and here her word is our command. She is young enough to make us feel old. And as for mysteriousness: She once wrote a booklet that induced a young African to move to East Tennessee. She is good at Chinese Checkers by virtue of having worked at the MacDowell Colony. She is a partner in a real estate enterprise with a fiduciary trust company. She has twentyfive ribs. And, finally (how mysterious can you get?), she is the undisputed inventor of the mondegreen. If the foregoing mystifies you, your obvious recourse is in put in an order for McGraw-Hill's forthcoming Sylvia Wright collection, Get Away From Me With Those Christmas Gifts. It'll be out next month.

John H. Newitt, whose "Hi-Fi Primer" series begins on page 52, is naturally best known to fi-folk as author of High Fidelity Techniques (Rinchart, New York, \$7.50). Currently he is doubling in education and commerce. He teaches (subjects mostly relevant to audio) at Massachusetts Institute of Technology, and he serves as manager of commercial products at Harvey Wells Electronics, Inc. He had his technical training at Stevens Institute of Technology, whence he holds a B.S. (E.E.) degree. and also has studied management. During the war he won two citations for the development of what the Government cautiously calls "special devices," and he has several patents to his credit. To our mind he is one of rather few technically qualified audio men who can transpose scientific fact into laymen's English easily: hence the assignment to him of the "Hi-Fi Primer" series.

HIGH FIDELITY MAGAZINE

A NEW UNDERSTANDING OF MUSICAL GENIUS

new AMI AMI precision high fidelity am-fm phono-tuner sound system

Just as the artist relates form to function, so AMI gives you precision in sound with excellence in design. The new AMI AM-FM phono-tuner sound system is laboratory produced in controled numbers by electrosonics engineers. Maximum performance components are precisely intermatched and balanced. The separate wall horn enclosure is audio-engineered to such perfection as to become a component in itself. Write now for the name of your dealer, and literature.

EXCLUSIVE THREE-CHANNEL FRONT-LOADED EXPONENTIAL HORN SYSTEM (3 speaker-drivers plus 3 horns) and 3-way frequency dividing network effectively doubles audio efficiency. High output 22 watt professional amplifier and pre-amp. Master control panel with separate, continuously variable volume control; professional 3-step loudness control; precision calibrated bass and treble tone controls for definite steps in cut and boost or infinite variation, 4-position 12 db/octave high frequency roll-off control (scratch filter); selector control for phono, tape, TV, microphone; equalization controls RIAA, LP-LON, NAB LP and early Columbia. All inputs and outputs, including 5 remote speakers. World famous 4-speed Garrard changer. AM-FM super-sensitive tuner with AFC and tuning meter. Incorporated, 1500 Union Avenue, S. E., Grand Rapids 2, Michigan, Chicago, Zurich, engineers, designers and manufacturers of professional and commercial sound systems since 1909.



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THIS is the finest audio cabinetry procurable. Quietly yet unmistakably elegant, AMI enclosures attest most eloquently to the cultivated tastes of those who select them as possessions of enduring worth and excellence.

HAND made by a small band of dedicated craftsmen who leave their mark of distinction on every piece, AMI enclosures are doubly prized: for carefully chosen solid core stock of impressive thickness overlaid by grainmatched laminates of select woods ... and for the doweled and mortised joinery used exclusively throughout. WHILE costly, this rare craftsmanship repays the owner many times over in the security and satisfaction that comes with possessions of inimitable distinctiveness and quality NOR are such exacting standards without merit acoustically as well. For here is the most rigid, resonancefree enclosure in all high fidelity. Thus the AMI enclosure is unique as an integral and functional component of the sound system, and accounts in part for the superiority of AMI tonal qualities.



HAND rubbed to a satin finish, these select woods are eternally protected from burns, alcohol and other mishaps by a special protective sealer that guards their beauty forever.

TO acquire an AMI instrument of which this superb enclosure is a part, is to have wisely invested in lasting value. For no matter what changes in componentry technological advance may bring, AMI enclosures will house them with charm and dignity... and remain cherished objects of fine furniture craftsmanship, and prized possessions of future generations.

AS functionally practical as they are beautiful, AMI instruments offer added value for those who take great care in matters of decor. Simplicity and economy of line ...

modernity of design and practical light and dark finishes combine to complement contemporary, traditional or continental furnishings. Walnut, light or dark mahogany finish.



)Incorporated 1500 Union Avenue, S.E., Grand Rapids 2, Michigan



Now available on the American matket through the Ercona Corp. is the British Chapman FM-AM-SW TUNER, Model S-5E. It features the new Mullard EM-81 tuning eye and variable selectivity for AM tuning. Tuning ranges cover 12.5 to 250 meters in three bands, plus the FM and AM broadcast bands. FM sensitivity stated to be better than 4 my for 20 db quieting.

Imported by Electronic Applications are the Swiss ReVox TAPE RECORDERS, models B-36-1 and B-36-2. The former is a single track unit; the latter is a dual. The recorders employ three motors, separate record and playback heads, separate record and playback amplifiers; speeds are $3\frac{3}{4}$ and $7\frac{1}{2}$ ips. Frequency response at $7\frac{1}{2}$ ips is specified as 40 to 12,000 cycles +1, -2 db. Both units handle 10-in. reels, are push burton controlled, have three inputs. Prices: \$469 for the single track, \$449 for the dual.

The Racon 18-HW 18-in. low frequency SPEAKER is of the high efficiency type, with a patented floating cone which tesults in low (19 cps) fundamental resonance, high compliance and low mass. Net weight is 38 lb.; audiophile net price is \$150.

Automation, we are told, broke through the hj-fi sound barrier this week: Walco has developed a process for automatic manufacture of diamond styli which has enabled them to lower the price of diamond NEEDLES from \$25 to \$14.95.

Vinetta's new RECORD RACK, Model 2050, is offered with dipped rubber finish to protect records from damage. Holds 50 records; is 103/4 in. long, 43/4 deep, and 41/2 high. Suggested price: \$2.25.

Dual volume controls and a binaural channel are offered in Lafayette's AUDIO CONTROL, along with 7 inputs for cartridges, tuners, or tape records. Specs are IM distortion below 0.09% at I V output; harmonic distortion approximately 0.25% at 5 V. Sensitivity on magnetic input is 0.2 mv for I V output; on tuner and tape, it is 0.2 V for I V output. Noise level is 80 db below 3 V output at full gain. The control is available as a kit (KT-300)

Continued on next page



GUARANTEED PERFORMANCE SPECIFICATIONS



An Altec Lansing Exclusive!

802C DRIVER and 811B HORN



impedance: distribution
dimensions :
price :

16 ohms

800 cycles

\$42.00

4-1 db steps

8½" H; 5½" W; 3½" D

power:

range :

guaranteed

30 walts

16 ohms

Hor., 90°

Vert., 40° 8%" H; 18%" W; 16" D

802—\$57.00 811—\$27.00

800-22,000 cycles

N-800D NETWORK

impedance:
hf attenuation:
crossover:
dimensions:
price:

ALTER

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power:
impedance:
guaranteed
range:
mag. weight:
v.c. diam.:
cone res.:
dimensions:
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803A SPEAKER

30 watts 16 ohnis 30-1600 cycles 2.4 lbs. 3" 45 cycles Diam., 153/6"; Depth, 7" \$60.00

A SOUND REPUTATION SECOND TO NONE

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ON THE COUNTER

Continued from preceding page

at \$39.50 or fully wired and tested (LT-30) at \$59.50.

Pentron offers a full line of TAPE EQUIPMENT: three tape transport mechanisms, three tape preamplifiers, and a 4-channel microphone mixer. The TM series of transport mechanisms utilize a single rotary function control plus a quick-flip speed change (33/4 and 71/2 ips); the mechanisms may be mounted vertically or horizontally or at any angle between. Less than 0.4% flutter is specified. The three preamps are: CA-11, tape playback only; CA-13, recording amplifier and playback preamplifier, with VU meter; CA-15, stereophonic dual channel playback preamplifier with separate equalization controls for each channel and a master gain control. Specs call for a frequency range of 40 to 14,000 cps on the CA-11 and CA-13; the range is 20 to 20,000 cps on the CA-15. — The CA-14 is Pentron's standard 4-channel mixer; has six inputs: 4 microphone and 2 phono. Price ranges are: tape transport mechanisms, from \$84.50 to \$109.95; preamps, from \$39.95 to \$79.95; mixer, \$39.95.

International Magnetic Electronics has announced what would appear to be a stacked TAPE HEAD. It's called an in-line stereophonic rape recorder conversion device, which - if we may comment in this no-comment column -will scare some people unnecessarily. The pix supplied shows a rape head mounted on a bracket, with two guide posts nearby, pressure plate, and two phono jacks mounted on the bracket. It would seem that you merely mount this assembly in such a position that the tape will pass from supply reel, across assembly's head, past the capstan drive of your recorder, and on to the take-up reel. Two shielded wires (short, please) should be run from the phono jacks to equalized preamp inputs (plural). Simplicity itself; and you get stereo where you had monaural, or stacked in place of staggered. Price not stated.

American Electronics has a series of TAPE RECORDERS for use in the audiovisual field. Operate at 3³/₄ or 7¹/₂ ips; use up to 10¹/₂-in. reels; have 3 motors; can be adapted for stereo record and playback.

The Wollensak 1500 TAPE RECORD-

Continued on page 22

HIGH FIDELITY MAGAZINE



Once the design of a high fidelity tuner or amplifier has been completed, the chief engineer is entirely dependent on how well the factory can reproduce it.

In a sensitive high fidelity instrument, the location of its component parts is extremely important. As little as 1/32 of an inch can make the difference between routine and superb performance. This critical relationship can often be compromised by the conventional production method of hand wiring. Subtle wiring variations, unintentionally introduced by production people, can result in wide variations in performance between sets produced on the same production line.

Were it possible to place the chief engineer at each of our forty final test positions, he could undoubtedly correct those compromises and make each instrument the perfect translation of his design.

Harman-Kardon has, in effect accomplished this objective by the creative application of printed wiring. Its use in every Harman-Kardon tuncr and amplifier has virtually eliminated human variables in production. In each instrument every part is in its one best position with respect to every other part and all the interconnecting wires are of precisely the correct length and in precisely the correct place. This is one of the reasons why the Harman-Kardon tuner or amplifier you buy is certain to equal the performance of the original engineering design.

Printed wiring is the technique which can effect perlect reproduction of the engineer's design every time. The process literally prints the interconnecting wiring of the instrument by etching it on a laminated phenolic sheet. Electrical components are fastened to the sheet by automation equipment and the sheet is then dipped into a bath of solder. In this manner each element is locked into its one best position.

This process has been perfected and proved in the U.S. Guided Missile and Earth Satellite programs—and in the production of radar and the new computers. Here, where emphasis is on precision, reliability and quality—and where cost is not a factor—printed wiring is the production choice.

Typical product of the marriage of creative engineering and ideal production technique is the new Harman-Kardon Recital Model TA-120. It combines a highly sensitive AM-FM tuner, a complete preamplifier and a 20 watt hum-free, distortion-free power amplifier. It features: magnificent Armstrong FM with Automatic Frequency Control to insure accurate tuning automatically; sensitive AM with automatic volume control and built in ferrite antenna; dynamic loudness contour control to provide precise balance for your own hearing characteristics; enormously effective bass and treble tone controls to adjust for the acoustics of your room; selectable record equalization; remote speaker selector switch and rumble filter.

The Recital's "Controlled H" circuit operates so efficiently that it creates less heat than conventional instruments which deliver only half its power output. The enclosure and control panel are finished in brushed copper, the knobs and control panel frame in matte black. The Recital is 14-3/4" wide by 3-5/8" high by 10-15/16" deep. Simply plug in a suitable loudspeaker and record player and a high fidelity system of incomparable performance and unique good looks is yours. The Recital Price is \$189.95

Slightly higher in the West

FREE: Colorful, fully illustrated catalog. Describes complete Harman-Kardon line. Includes guides on how and where to buy high fidelity equipment. Send postcard to Harman-Kardon, Dept.H-09, 520 Main St., Westbury, N.Y.



DO YOU HEAR A DIFFERENCE IN LOUDSPEAKERS?

IF SO, AT LEAST ONE OF THEM MUST BE DISTORTING

The different characteristics of loudspeakers are due to different kinds and amounts of distortion. The most desirable loudspeaker would be one which had absolutely no distinctive character about it. The only way to achieve such a loudspeaker is to reduce all forms of distortion to a minimum.

One form of distortion is harmonic distortion. This occurs primarily at low frequencies, where the cone must make large excursions. Harmonic distortion is caused by non-linearity in the restoring force of the mechanical suspension during these large excursions. Another form of distortion occurs when certain of the lowerfrequencies are exaggerated or when the whole bass spectrum is either depressed or accentuated. Distortion of this type appears when an improper choice is made of the acoustical, electrical and mechanical parameters with the result that the combined system of loudspeaker, enclosure and amplifier output stage does not have equal efficiency at all frequencies.

A third form of distortion results from frequency irregularity in the mid-range. This is usually caused by erratic vibrations of the cone or by improper matching of the frequency response characteristics of two or more loudspeakers designed to cover different ranges.

Despite the strong tendency for these forms of distortion to occur, KLH was convinced that a sufficient concentration of talent, experience and equipment, used in a properly oriented program, could devise a way to consistently produce loudspeakers in which not just one but all of these forms of distortion are reduced substantially below the level heretofore found in the best available loudspeakers. The successful completion of such a program has resulted in the production of KLH Models One, Two, and Three, speaker systems designed to cover low- and mid-range frequencies:

Low harmonic distortion is achieved by making use of the acoustic suspension principle in which the inherently non-linear mechanical restoring force is largely replaced by the inherently linear restoring force of the enclosed air in a small sealed cabinet.

Smooth extended response at low frequencies is achieved by using a direct radiator in a completely closed cabinet and properly choosing the volume of the enclosure, the mass and area of the cone, and the design of the voice coil and magnetic circuit so that the efficiency of the system remains constant down to the lowest frequencies desired without the system suffering from the common foult of being either underdamped or overdamped.

Frequency irregularity in the mid-range due to erratic vibrations of the cone has been sharply reduced by use of special paper cones of our manufacture whose design was based upon the results of an exhaustive investigation of cone structure and composition carried out in our laboratory.

Prices from \$159.00 to \$378.00. Literature available upon request.



ON THE COUNTER

Continued from page 20

ER is a dual speed unit (the usual $3\frac{3}{4}$ or $7\frac{1}{2}$ ips) weighing a scant 18 lbs., yet providing a frequency response of 40 to 15,000 cps ± 3 db at $7\frac{1}{2}$ ips, with wow and flutter components of less than 0.3%. Output is 10 watts; size $6\frac{1}{2}$ by 11¹/₄ by 11³/₄ inches; price, \$189.50.

Webster Electric's midsummer announcements for the Ekotape TAPE RECORDERS included the 270 AV, for audio-visual work, which features either full- or half-track heads, two speeds, 6 by 9 oval speaker, VU-type recording level meter, and odometertype program selector. The 280 appears similar but has twin speaker and a crossover network. The Model 290 is a stereophonic unit featuring a stacked head and a pair of 8-watt amplifiers. No prices given.

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Audio Device's C-slot TAPE REEL is designed for easy loading. Simply drop the tape through; it is said to catch automatically.

Permo, manufacturers of Fidelitone phonograph needles, have developed Fidelitone Lubri-Stat RECORD SPRAY, said to be the last word in prescriptions for record and needle care. It is a combination antistatic and lubricating liquid; comes in 6-oz. spray cans.

American Geloso Electronics, Inc., imports the Geloso TAPE RECORDER from Italy, model G-225/S. It is a compact, lightweight, dual track unit, operating at 17/8 or 33/4 ips. Utilizes 3 or 31/4-in. tape reels; may be operated on line voltages from 110 to 220 volts; measures 97/8 by 53/4 by 51/2 ins. Price: \$179.95.

The Heath W-6M kit will build you a 70-watt POWER AMPLIFIER with specs of 5 to 80,000 cps ± 1 db at 1 watt, and IM below 1% at 70 watts. All this for \$109.95.

Bell Sound's Playmate TAPE RE-CORDER comes in three basic models: RT-204, at \$179.95; monaural record playback; BT-205IB, at \$224.95, monaural record, stereo inline playback; BT-204OB, at \$209.95, monaural record, stereo staggered playback. On all models: speeds of 3³/₄ and 7¹/₂ ips available; built in 6-in. speaker, driven by 5-watt amplifier; piano key controls.

Robins Industries now markets Fiberglas INSULATION, for acoustic padding of speaker cabinets, etc.; package

Continued on page 24

HIGH FIDELITY MAGAZINE

The Most Powerful FISHER Amplifier Ever Built...

125 WATTS!

E FISHER · 125-AX

Model 125

BEYOND a shadow of a doubt, THE FISHER Model 125-AX sets new standards for power amplifiers - from the standpoint of design, performance and reliability. Its exceptionally high power output and significantly low distortion provide the ideal combination for quality reproduction, with ample reserve power for every requirement of the music connoisseur or professional user.

Outstanding Specifications of THE FISHER Model 125-AX

■ 125 watts with normal program material. ■ 90 watts confinuous sine wave duty. ■ Less than 0.6% distortion at 125 watts; less than 0.5% distortion at 90 watts. ■ Two power supplies, assuring optimum amplifier operation. E Unique FISHER Performance Monitor meter Indiamplifier operation. II Unique FISHER Performance Monitor meter Indi-cates correct adjustment of autput tube bias, screen voltage and autput balance, and shows average power in watts. It eas than 1% IM dis-tortion at 90 watts; less than 2% at 125 watts (measured 60/3000 cycles at 4:1) II Frequency response within 0.25 db, 20 to 20,000 cycles. II hum and noise better than 92 db below full output. II 4, 8 and 16-ohm speaker output Impedances, plus 70.7-volt output at 90 watts. II Power socket supplies all necessary voltages for operation of un-powered, external components. II EIGHT CONTROLS: Input Level, Speaker Impedance Switch, Motor Switch, Blas, Screen Voltage, Output Balance, Driver Bolance, Z-Motie. II TUBE COMPLEMENT: 1-12AU7, 1-12AX7, 4-EL34 (6CA7), 1-6Y6, 1-6AU6, 2-5R4GY, 2-NE16. II SIZE: 14" wide x 111/8" deep x 81/4" high. II WEIGHT: 55 lbs.

Model 125-AX, \$229.50 Model 125-A, with 8 and 16-ohm outputs only, \$219.50 Prices Slightly Higher in Far West

WRITE TODAY FOR COMPLETE SPECIFICATIONS FISHER RADIO CORPORATION + 21-25 44th DRIVE + L. I. CITY 1, N. Y. An announcement we hope will gladden some very patient people . . .

HERE IS THE NEW JansZen PRECISION-DESIGNED WOOFER

From the day designer Arthur Janszen finished the production prototypes of the JansZen 130, the electrostatic loudspeaker was here to stay. Such true, transparent, trouble-free treble had not been heard before from a loudspeaker. Music lovers succumbed at once, in delight, and demand ran away from supply.

This was gratifying, especially so because there had been strong misgivings here about marketing the tweeter without a woofer to match. (Not that we had any choice. It is almost axiomatic among small manufacturers of precisely crafted devices that you must sell one product to pay for the development of the next.) Worthy woofers existed, but they had been carefully designed good woofers do not just happen—to complement tweeters of operating principle similar to their own: a moving coil driving a cone or diaphragm. Most of them, when teamed with electrostatic tweeters, showed irreconcilable variances of phasing, midrange roll-off, transient attack, impedance, and efficiency.

A few, fortunately, worked rather well, earning our recommendation, and it must be said here, with profound respect, that certain ingenious home sound experimenters managed with multiple woofers and special enclosures, to produce sound with which we could find no fault at all, except that it cost them more hours and/or dollars than most people can afford.

Obviously, we still had an obligation, but we had not been delinguent about it. As soon as the 130 was launched, Mr. Janszen and his staff had gone back to work designing a bass speaker to complement it. Silence was imposed until he could be reasonably sure of success; premature mention would have been unfair both to prospective buyers and to other manufacturers. Early last summer he admitted he had something satisfactory, which is for him a wildly enthusiastic statement. We present this product to you, as the JansZen DYNAMIC woofer. It consists of one cone in a special cabinet. It is unique in some particulars. It had to be, because it was conceived, designed, and empirically crafted to work in seamless sonic unison with the 130 tweeter. It does. Expert listening juries have been (happily) unable to detect its point of crossover. Further, it is small, hearteningly inexpensive, and capable of clean, solid bass down to a measured 30 cycles per second. You will be able to buy it either by itself or in a common enclosure with the 130, come October.

Write for literature and the name of your nearest dealer

Product of NESHAMINY ELECTRONIC CORP., Neshaminy, Pa.

Export Division: 25 Warren Street, N.Y.C. 7, Cable Simontrice, N.Y.

ON THE COUNTER

Continued from page 22

contains 6 ft. of insulation, 18 in. wide, 1 in. thick.

The Weathers Barrington SPEAKER SYSTEM employs 12 moving-coil speakers; is capable of handling 60 watts but is said to provide comfortable small room volume with 0.1 watt. Size is $47\frac{1}{2}$ inches high by $40\frac{1}{2}$ wide and $15\frac{1}{2}$ deep. Note: impedance is 4 ohms. Price not stated.

The Eico HF-50 POWER AMPLIFIER is similar to the HF-60 except for output transformer, and a rated output of 50, instead of 60, watts. Specs indicate IM below 1% at 50 watts, below 0.5% at 45 watts; sinusoidal frequency response of ± 0.5 db from 6 to 60,000 $\bar{c}ps$ at 1 watt. Price: wired, \$87.95; kit form, \$57.95.

The damping fluid in the Argonne viscous-damped TONE ARM is installed at the factory and sealed in to prevent leakage. Plug-in heads. Price: \$19.50.

The Knight Tri-Fi is a 12-in. 3way SPEAKER featuring built-in mechanical and electrical crossovers, with high frequency output controlled through an L-pad level control. Power capacity is specified as 25 watts and frequency response as 35 to 15,000 cps ± 5 db. Stock number at Allied Radio is 81 DX 839; price \$49.50; guaranteed unconditionally for one year.

The Sonotone T-64 is an elliptical cone TWEETER selling for \$7.50. Their HFA-150 is a 15-watt AMPLIFIER with control and equalization facilities. Six inputs; separate tone controls; rumble and noise filters; loudness (or contour) control. Size: 3 in. high, 12 wide, 7 deep. Price: \$79.50.

Pilot's HF-30 is an all-in-one SYS-TEM: 12-watt amplifier, preamp-equalizer, FM and AM tuner, all in one compact cabinet for \$169.50. IM is specified at less than 1.5% at 12 watts; tone control ranges are ± 18 db at 20 and 20,000 cps; has inputs for magnetic phono and auxiliary; FM sensitivity of 3 mv for 20 db of quieting with 30% modulation.

There are too many SPEAKER EN-CLOSURE models in the new Argos catalogue for us to list them here . . . it includes both factory-built and kittype enclosures for speakers of all sizes; prices range from \$52.50 downward, sizes from 4.3 cubic feet downward. There's also an attractive series of small enclosures for corner mounting, near the ceiling, etc.

Everything You Need-Tuner, Amplifier, Controls



WORLD LEADER

FOR 20 YEARS



A WORD FROM AVERY FISHER Founder and President. Fisher Rudio Corporation

Reverberation or No?

A FEW WEEKS ago I attended a clfimber orchestra concert at the Concertgebouw in Amsterdam. My seat was at the extreme front left corner of the orchestra, from where I could see only the backs of the rear-bench first vio-linista. In other words part of the audience, including myself, was destined to hear only that portion of the concert that bounced off the walls and ceiling. As things developed, when the orchestra began to play I found myself hearing luxurious sound apparently unimpaired, despite the very poor seat location.

With the help of a sympathetic usher I was able to enjoy the remainder of the program from a scat where I could see the musicians as well as hear them. It made no important difference in the acoustical results — a tribute indeed to this venerable, but musically perfect hall.

I also enjoy the concerts at the magnificent Grace Rainey Rogers Auditorium of the New York Metropolian Museum of Art – where by the use of deflecting baffles above the perform-ing artists, and perforated hardwood panels on the side and rear walls (with, I presume, ab-sorptive material behind the panels) every seat is the 'best' seat. The sound is live without heing brash. And it has enough reverberation to con-firm the dimensions of the auditorium firm the dimensions of the auditorium.

In my early teens, when I was studying the vio-lin. I would frequently play the instrument in an empty room of our home, where the rever-beration was so rich and long-persistent that it beration was so rich and long-persistent that it made my rather ordinary instrument sound like the Sarasate Stradivarius. The acoustic effects that I encountered in those days and their psychologically enriching pleasures, are today built into virtually every recording, either through techniques used at the actual perform-ance or at the time of creating the master tape from which all production later flows.

Avery Fisher

MDACT SHER "500"

FUSHER MATCHES THEM FOR YOU-all three basic high fidelity com-ponents, laboratory engineered and professionally combined on one compact chassist THE FISHER "500" features an extreme-sensitivity FM-AM tuner, powerful 30-watt amplifier and Master Audio Control. Simply add a record player and loudspeaker and you have a complete high fidelity system. The "500" is the simplest and most economical manner in which to acquire matched components-true to the twenty year FISHER tradition for quality. Chassis Only, \$249.50

Mahogany or Blonde Cabinet, \$19.95

Outstanding Features of THE FISHER "500"

Outstanding Features of THE FISHER "500" Extreme sensitivity on FM and AM. Meter for micro-accurate tuning. Full wide-band FM detector for maximum capture ratio. Powerful, 30-watt amplifier; handles 60-watt peaks. Uniform response. 16 to 32,000 cycles. # 4 inputs, including separate tape playback preamp-equalizer. 4, 8 and 16-ohm outputs match all existing speakers. Recorder output ahead of volume and tone controls. 7 Controls, including 9-position Channel Selector (AM, FM, AES, RIAA, LP, NAB, TAPE, AUX 1 and AUX 2), Loudness Contour (4-position), Volume, Bass, Treble, AC-Power, Station Selector. Beautiful die-cast, brushed brass escutcheon and control panel. Pin-point, channel indicator lights. Smooth, flywheel tuning, Largest, easy-to-read, slide-rule dial, with logging scale. High efficiency FM and AM antennas supplied. B 18 tuned circuits. B 14 tubes plus 2 matched germanium diodes. SIZE: 134/* wide x 134/* deep x 64/* high. SHIPPING WEIGHT: 26 pounds.



THE FISHER 80-T FM-AM Tuner

The 80-T is the most advanced FM-AM Tuner with complete oudio control facilities, and two meters for micro-accurate tuning. E Separate FM and AM front ends. E FM sensitivity of 1½ microvolt sensitivity for AM. A Adjustable selectivity for AM and variable AFC for FM.
 Separate tape hoad playback preamplifier.
 Preomplifier can be used with lowest level magnetic cartridges. E Six record equalization settings. B Separate Box and Treble controls.
 Four inputs. E Input for 72-ohm and 300-ohm balanced antennos. E Multiples, and two Cathode Follower outputs to recorder and amplifier. Chossis, \$199.50 Mahogany or Blande Cabinet, \$1925

5) 0

THE FISHER FM-90X **Gold Cascode Tuner**

The most sensitive FM tuner in all the world! The FM-90X brings FM reception to the theoret-ical limits of sensitivity. In one overwhelming sweep, it has rendered oll other FM tuners in its price range obsolete. Exclusive GOLD CASCODE RF amplifier. E four IF stoges. In Dual Dynamic limiters operate on signals as low as 0.5 microvoltil II. Two meters for micro-accurate tuning. Isilver-plated RF sec-tion. II Widest-bond Ratio Detector. A Antenno inputs for 72 ohms and 300 ohms balanced. Chassit, S169 50. Chassis, \$169.50 Mahagany or Blande Cabinet, \$17,95

PRICES BLIGHTLE HIGHER AN THEFAR WEST WRITE TODAY FOR COMPLETE SPECIFICATIONS FISHER RADIO CORP. . 21-25 44th DRIVE . L. I. CITY 1, N. Y.



Most superbly styled of all arms — this is also the one turntable arm that offers best compliance, lowest resonance, optimum tracking... to give you better sound! That is why it is the one arm invariably sold with every turntable — outselling all other turntable arms combined! Write for catalog and free Strobe disc. \$26.95 12" Arm, \$29.95 16" Arm.

EXCLUSIVE FEATURES! • Patented sealed Versa-Twin bearing pivot provides superior horizontal compliance. • For free vertical motion, arm pivots are mounted in chrome steel ball-bearing races. • Micrometer gram weight adjustment gives correct stylus pressure without need for stylus gauge. • Has easy arm-height adjustment. Takes all popular cartridges.





Record Storage

All this discussion about record storage ... and everyone trying to figure out different ways of doing it. Did you ever think about storing the records with the flat side out?

Reader John Stahr of Larchmont, N. Y., built a rack under a windowsill; the rack is four records wide and two high — very roughly, four by two feet. The shelves are six inches deep, so quite a few records can be stacked. Mr. Stahr classifies his collection into eight major types, stores the records accordingly. Not only is this system practical and convenient, but it lends a decorative feature to the listening room.

Solder

Remember the time some one of our writers got tangled up with what solder was made out of? We published a letter from one of the top brass (top rosin?) at the Federated Metals Division of the American Sinelting and Refining Co., who chided us gently and politely.

The other day, in comes a big roll of solder. Rosin core, naturally. Which got our kit-building urge reactivated, and our NWI writer has been building another amplifier. Solder works fine, too.

Record Cleaning

Shrader Sound in Washington, D. C., advises its customers to clean records thusly: mix one part "Joy" with ten parts water. Place record on turntable, let it turn; assist with a finger pushing in the label area, if necessary. Stretch thin cloth over a finger (of other hand, or things will get involved), dip in 10-to-1 Joy solution, and apply cloth firmly to record surface, starting at outside edge. If much grime is picked up, repeat process. (Shrader

Continued on page 28

WORLD

FOR 20 YEARS

Complete in Every Respect!

THE FISHER

ONE COMPACT CHASSIS



Outstanding Buy In FM Tuners



THE FISHER FM Tuner · Model FM-40

FM luner • model rm-40 ■ For Discrimtinating Listeners! A remarkable instrument, beautifully designed, yet modest in cost. Stable circuitry and simplified controls make the FM-40 exceptionally easy to use. ■ Meter for micro-accurate, center-of-chained tuning. 72 and 300 ohm antenna inputs. ■ Sensitivity is 3 microvolts for 20 db quieting. ■ Outputs for amplifier, tape and Multiplex. ■ Cathode follower output permits leads up to 200 feet in length. Mahogany or Blonde Cabinet, \$17.95

No Other Like It!



THE FISHER Master Audio Control • 80-C

■ Containing features found only in professional studio consoles – the Master Audio Control matches any power amplifier. ■ Provides professional phono and tape-head equalization. ■ Full mixing and fading facilities for from two to five channels. ■ Seven Inputs. ■ Two cathode follower outputs. ■ Preamplification and equalization directly from tape playback head. ■ DC filaments for non-measurable hum level. ■ Completely self-powered. Chastis, \$99.50 Mahogany or Blonde Cabinet, \$9.95 THE FISHER Master Control-Amplifier Model CA-40

Per Ba

ESIGNED to satisfy the most critical requirements of the music connoisseur, as well as the professional engineer, THE FISHER Model CA-40 is, without a doubt, the most versatile unit of its type available today. On one compact chassis it offers the most advanced preamplifier with controls, as well as a powerful, 25-watt amplifier with less than 1% distortion at full output! The Model CA-40 has provisions for six inputs and offers complete equalization and preamplification facilities for both records and tape. It features an exclusive FISHER First -TONESCOPE, to provide a graphic indication of Bass and Treble Tone Control settings. In every respect -flexibility, laboratoryquality performance, handsome two-tone styling - the MASTER CONTROL-AMPLIFIER reflects the creative engineering that has made THE FISHER world-renowned for two decades. Truly, the CA-40 will long serve as the ultimate standard of comparison for amplifiers with control facilities. SIZE: 1234" x 1014" x 5" h.

WRITE FOR COMPLETE SPECIFICATIONS

FISHER RADIO CORP. . 21-25 44th DRIVE . L. I. CITY 1, N. Y.

PILOT

and only PILOT

offers you peak performance in high fidelity at low cost

3-in-] COMPONENT UNITS

Pilot engineering and ingenuity at its best! Tuner, amplifier and preamp-audio-control built onto a single chassis for greatest convenience in assembling a high fidelity system. Only the speaker, and record player or tape recorder need be connected.



HF-42

Includes FM.AM Tuner with tuned RF stage and dual caecade limiter-discriminator FM circuit for maximum sensitivity - perfect quieting even with fringe signals; precise BEACON tuning indicator; AFC with dis-abing switch; 10 KC filter for AM; built-in FM and AM antennas; flywheel tuning.

Preamp-Andio Control with hum-free DC on tube heaters; tape head and phono inputs with separate equalization; bass and treble controls; loudness-contour and volume controls; tape recorder output.

Power Amplifier with less than 1% distortion at 20 watts rated output (40 watts peak); frequency response; 20 to 20,000 cycles, ±Idb; built in rumble filter. Housed in handsome enclosure finished in brushed brass and burgundy.

Dimensions: 4% "h x 18% "w x 12% "d. \$209.50 Complete

HF-30

Includes FM-AM Tuner with tuned RF stage for high sensitivity – perfect quieting even with fringe signals; precise indACON tuning indicator; AFC with disabling switch; 10 KC filter for AM: built-in FM and AM anten-nas; flywheel tuning.

Preamp-Audio Control with phono and auxil-iary inputs; bass and treble controls, loudnesscontour and volume controls, tape recorder output.

Power Amplifier with less than 1% distortion at 12 watts rated output (24 watts peak); and frequency response: 20 to 20,000 cycles, ±1db; selector switch for independent or simultaneous operation of two speaker sys tems. Housed in handsome enclosure finished in brushed brass and burgundy. Dimensions: 414"h x 1414"w x 1014"d.

\$169.50 Complete



Make your own performance test of these component units at your Pilot dealer. For complete specifications, write to Dept. AV-9

Prices slightly higher west of Rockies



Pilot RADIO CORP., 37-06 36th St., Long Island City, URN, Ya

Over 38 years leadership in electronics,

NOTED WITH INTEREST

Continued from page 26

says it's surprising how much grime is collected even from clean records.) ---After application, it may be necessary to clean the stylus with a brush to remove the mud collected from the bottom of the groove.



Tape Cartridge

Pictured above is the Cousino tape cartridge being inserted into a Riviera playback machine. You simply push the cartridge into place and turn the big lever to "Play." No threading, no supply and take-up spools, and no rewinding, either - the tape is continuous. Plays for one hour at 33/4 ips (older equipment played for only half an hour). Cartridge design is such that it may be played at 71/2 ips, but primary use of this equipment is in connection with talking displays, supermarket announcements, telephone answering devices, and so forth . . . even sleep therapy machines.

English Computer Exhibition

Any readers wandering around London between November 28 and December 4, 1958 — that's next year — might like to drop in at Olympia to see the Computer Exhibition.

One of the obvious advantages of technological advances in the computer field is the development of the science of long-range planning. Imagine! Receiving a publicity announcement in September 1957 for an event to occur in December 1958!

TV Sound

Pats on the back to TV Guide for publishing, in its April 6-12 issue, an article by Mitch Miller of Columbia Records about the lack of attention paid to television sound. As we have said in HIGH FIDELITY, there is good sound sometimes on television. But there could be much more. Trouble is, we're talking to ourselves. When TV Guide takes up the battle, it talks to 5,000,000 people.

Some quotes from Mr. Miller's article . . . "I've noticed one job that needs doing: making popular music. With a few exceptions, the television viewer isn't getting enough popular music of a quality he's entitled to in this age of spectacular, portable, color TV. . .

"The radio stations now properly advertise themselves as the best purveyors of music and news. . . It's assumed that people listen to radio news because it's better than television news, but that they listen to radio music because it's handier. It's also better - and the reason is that more care and thought go into the sound of the music you hear on radio than the music you see on television. . . .

"Even in these days of high-budget relevision and economy radio, radio's Sunday afternoon "Woolworth Hour" has five hours of on-mike rehearsals for the orchestra and soloists, while most television shows have one hour of combined camera and sound rehearsal for the music! These rehearsals are . . . to balance the sound coming from the various instruments and vocalists, and, in television, to rehearse the cameras and lights as well.

"Do these sour notes mean that I think television can't be a major outlet for good musical entertainment? Nor at all; but I think there will have to be some changes made before it happens. For example: A \$500 set has a speaker worth perhaps \$15 or \$20. For \$500 these days you can buy a hi-fi for radio and phonograph that will distinguish between the sounds of a pin dropped on a Persian and a Moroccan carpet. . . .

SW in Your Car

James Hughes, of Radio Station WKNX (Saginaw, Mich.) got tired of the usual AM radio fare he could get on his car radio. So he bought a push-button converter which tunes the 13, 19, 3r, and 49-meter shortwave broadcast bands. Says it works fine: He's had Moscow, London, Paris, Brus-

Continued on next page

PILOT and only PILOT offers you peak performance

TUNERS

in high fidelity at low cost

Traditional Pilot engineering and quality assure optimum performance. All Pilot tuners feature Beacon tuning for precise station selection. All Pilot tuners are also fully shielded to conform with FCC radiation specifications.

FA-550 FM-AM

Has tuned RF stage and dual cascade limi-ter-discriminator FM circuit for maximum sensitivity; - perfect quicting even with fringe signals; AFC with disabling switch; 10 KC filter for AM; flywheel tuning; built-in FM and AM antennas. Features preampaudio control with five input channels; hum-free DC on tube heaters; tape head and phono rree De on tube nearers, tabe near and phono inputs with separate equalization; bass and treble controls; separate cathode follower outputs for tape recorder and power ampli-fier. Housed in handsome enclosure finished in brushed brass and burgundy.

Dimensions: 4%"h x 14%"w x 10%"d. \$159.50 Complete

FA-540 FM-AM

Has tuned RF stage for high sensitivity – perfect quicting even with fringe signals; AFC with disabling switch 10KC filter for AM; cathode follower output; phono and auxiliary inputs; flywheel tuning; built-in FM and AM antennas. Housed in handsome enclosure finished in brushed brass and burgundy.

Dimensions: 4%"h x 13"w x 8%"d. \$109.50 Complete

FM-530 FM Only

Has tuned RF stage for high sensitivity – perfect quicting even with fringe signals; AFC with disabiling switch; cathode follower output; phono and auxiliary inputs; flywheel tuning; built-in antenna. Housed in handsome enclosure finished in brushed brass and burgundy.

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Ultra-Sonax and Super-Sonax Very-High-Frequency Drivers

± 2db FLAT RESPONSE WELL BEYOND 16,000 CPS!

Today's folded horn and phase loaded speaker systems with their lowest first-octave response require flat, extended high range response beyond the very limit of audibility if essential musical balance is to be achieved. These very high frequency drivers,

employing the time-tested diffraction principle and the new Avedon Sonophase throat design, overcome range and sensitivity limitations, deliver highest efficiencies and function without distortion at the highest ranges.



The T35, T35B and T350 have widest polar patterns, program capacities of 50 watts, peak 100 watts and 16 ohms impedance. Chart shows other characteristics of each model.

and the second sec	135 1358		1350
Frequency Response:	+ 2 db 2 kc-19 kc	± 2 db 2 kc-18 kc	±2 db 2 kc-21 kd
RETMA Sensitivity Raling:	57 db	54 db	60 db
Magnet Weight:	7 oz.	4 oz.	1 16.
Gauss	13,500	9000	20,000
Size:			
Horn:	5¼ in. long x 2 in. wide		7½ in. long x 2½ in. wide
Pol Diameler:	21/2 in. maximum		3½ in. maximum
Depth:	31/2 in, overall	3 in. overall	4½ in. overall
Shipping Weight:	3 lbs.	31/2 lbs.	91/2 lbs.
Net Price:	\$35.00	\$22.00	\$60.00

1

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SPECIFICATIONS

Use the E-V Speaker Building Block Plan to improve your highfidelity system with these amazing new VHF drivers. Building Blocks are complete component packages you can add to existing systems. Or, start with a basic speaker, step up the quality of reproduction one economical step at a time by adding Building Blocks.



BB1 (T35B) - Adds the very high frequencies; for use with lower cost existing 2-way systems (low-frequency driver and treble driver) and coaxial or full-range speakers having 1 to 2 lbs. of magnet (RETMA sensitivity ratings from 43 to 48 db). Consists of: T35B Super Sonax VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control with wiring harness. Net. \$37.00.



BB2 (T35) - Adds the very high frequencies; for use with existing deluxe 2-way systems (low frequency driver and treble driver) and coaxial or full-range loudspeakers having 3 lbs. of magnet or more (RETMA sensitivity ratings from 48 db to 54 db). Consists of: T35 Super Soncx VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control and wiring harness Net. \$50.00.



BB5 (T350) - Adds very high frequencies with wide dispersion, reserve power and extra sensitivity. For use in deluxe multiway systems having extended bass ranges and sensitivity, such as PATRICIAN, GEORGIAN, CARDINAL and CENTURION (RETMA sensitivity ratings of 50 db and higher). Consists of: T350 Super-Sonax VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control and wiring harness. Net \$75.00.

Records about the lack of attention paid to relevision sound. As we have said in HIGH FIDELITY, there is good sound sometimes on television. But there could be much more. Trouble is, we're talking to ourselves. When TV Guide takes up the battle, it talks to 5,000,000 people.

Some quotes from Mr. Miller's article "I've noticed one job that needs doing: making popular music. With a few exceptions, the television viewer isn't getting enough popular music of a quality he's entitled to in this age of spectacular, portable, color TV. . . .

"The radio stations now properly advertise themselves as the best purveyors of music and news. . . . It's assumed that people listen to radio news because it's better than television news, but that they listen to radio music because it's handier. It's also better - and the reason is that more care and thought go into the sound of the music you hear on radio than the music you see on television. . .

"Even in these days of high-budget television and economy radio, radio's Sunday afternoon "Woolworth Hour" has five hours of on-mike rehearsals for the orchestra and soloists, while most relevision shows have one hour of combined camera and sound rehearsal for the music! These rehearsals are ... to balance the sound coming from the various instruments and vocalists, and, in television, to rehearse the cameras and lights as well.

"Do these sour notes mean that I think television can't be a major outlet for good musical entertainment? Nor at all; but I think there will have to be some changes made before it happens. For example: A \$500 set has a speaker worth perhaps \$15 or \$20. For \$500 these days you can buy a hi-fi for radio and phonograph that will distinguish between the sounds of a pin dropped on a Persian and a Moroccan carpet. . . ."

SW in Your Car

James Hughes, of Radio Station WKNX (Saginaw, Mich.) got tired of the usual AM radio fare he could get on his car radio. So he bought a push-button converter which tunes the 13, 19, 31, and 49-meter shortwave broadcast bands. Says it works fine: He's had Moscow, London, Paris, Brus-

Continued on next page

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TUNERS

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Has tuned RF stage and dual cascade limi-ter-discriminator FM circuit for maximum sensitivity; - perfect quleting even with fringe signals; AFC with disabling switch; 10 KC filter for AM; flywheel tuning; built-in FM and AM antennes. Features preampaudio control with five input channels; hum-free DC on tube heaters; tape head and phono inputs with separate equalization; bass and treble controls; separate cathode follower outputs for tape recorder and power amplifier. Housed in handsome enclosure finished in brushed brass and burgundy. Dimensions: 4%"h x 14%"w x 10%"d. \$159.50 Complete

FA-540 FM-AM

Has tuned RF stage for high sensitivity – perfect quieting even with fringe signals; AFC with disabling switch 10KC filter for AM; cathode follower output; phono and auxiliary inputs; flywheel tuning; built-in FM and AM antennas. Housed in handsome enclosure finished in brushed brass and burgundy.

Dimensions: 4% "h x 13" w x 8% "d. \$109.50 Complete

FM-530 FM Only

Has tuned RF stage for high sensitivity perfect quicting even with fringe signals: AFC with disabling switch: cathode follower Are with disabing switch; cathode follower output; phono and auxiliary inputs; flywheel tuning; built-in antenna. Housed in hand-some enclosure finished in brushed brass and burgundy.

Dimensions: 4%"h x 13"w x 8%"d. \$89.50 Complete

Make your own performance test of these tuners at your Pilot dealer. For complete specifications, write to Dept. AW-y

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AMPLIFIERS

Pilot-engineered Williamson-type circuits employing specially wound output transformers to insure absolute stability and lowest distortion. Power specifications are conservatively rated, and amplifiers are designed for continuous operation at full output.



AA-920 Rated output with less than 1% distortion: 20 watis (40 watts peak); frequency re-sponse: 20 to 20,000 cycles, ±1db. Has built-in preamp and audio control with hum-free DC on tube heaters; tape head and phono inputs with separate equalization; 3-position rumble and scratch filters; bass and treble controls; loudness-contour and volume concontrols; loudness-contour and volume con-trols; plus tape recorder output. Housed in handsome enclosure finished in brushed brass and burgundy.

Dimensions: 4% "b x 131/4 "w x 9"d. \$99.50 Complete



AA-410A Basic amplifier-rated output with less than 1% distortion: 20 watts (40 watts peak); frequency response: 20 to 20,000 cycles, ±0.5db; 6L6GB output tubes. Chassis and cover cage finished in brushed brass. Dimensions: 4" x 12 %" x 6" high.

\$59.50 Complete



AA-903B

Rated output with less than 1% distortion: 14 watts (28 watts peak); frequency re-The part of the p and phono inputs with separate equilization; 2-position rumble and scratch filters; bass and treble controls; loudness-contour and volune controls; plus tape recorder output. Housed in handsome enclosure finished in brushed brass and burgandy.

Dimensions: 43/1"h x 131/4"w x 9"d. \$79.95 Complete



AA-908 Basic amplifier-rated output with less than 1% distortion: 40 walts (80 walts peak): frequency response: 20 to 20,000 cycles, ±0.1db; 6CA7 output tubes; provision for selecting optimum damping factor. Chassis and cover cage finished in brushed brass. Dimensions: 12%" x 8%" x 6%" high. \$125.00 Complete

Make your own performance tests of these amplifiers at your Pilot dealer, For complete specifications, write to Dept. AX-9

June 18. Demonstration was on the

RCA Stereo

funt

RCA Victor Mark I, a combination high-fidelity phonograph and FM-AM radio which includes a built-in stereophonic tape player in combination with a tape recorder; it is nationally advertised, we are rold, at \$2,000.

NOTED WITH INTEREST Continued from preceding page

sels, all over the world. The converter is made by Gonset, Burbank, Calif., it's model 3128, works only on 12

volts, and costs \$39.95. Sounds like

RCA demonstrated and explained stereophonic sound at a meeting in the Merchandise Mart in Chicago on

Hi-Fi in Spanish

Spanish-speaking readers will be interested in Alta Fidelidad, said to be the first book published in Spanish on high fidelity. About 100 pages, 61/4 by 91/2 inches, plenty of illustra-tions; looks well done all around. Author is A. Hernandez Travieso; it's sold throughout Latin America and the United States by Jerry Berliner, EMEC, 127 Grace St., Plainview, N. Y.

Thanks to Richard le Grelle, manager of the "California" high-fidelity store in Havana, for sending us a copy.

Audak to Rek-O-Kut

George Silber, President of Rek-O-Kut, Inc., recently announced purchase of the Audak Company.

In Cincinnati

Everyone know Electro-Sound, Inc., at 5912 Hamilton Ave.? They sent us a copy of their newsletter - The HiFinatic - which was interesting, helpful, and amusing. You might want to get on the mailing list.

Stylus Microscope

We've had the pleasure, lately, of checking out all the staff-owned styli -courtesy of Duotone, which was kind enough to loan us one of their fine binocular microscopes. The microscope provides a magnification of 150x, but is normally sold only to dealers carrying the Duotone line of needles.

After all the dealers have been taken care of, please, Duotone, won't

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you make some of these microscopes available to the general public? We'd like one, since nearly all of HIGH FIDELITY's staff are record users. We could divide up the cost — and so could many audio clubs and other groups who'd like to check their members' styli from time to time. Yes, we know we should go to our nearest Duotone dealer — but he, for us, is a long way off.

Miniaturization

Someday, someone will come along with a phonograph cartridge no bigger than a present-day stylus! We saw one the other day which was about $\frac{3}{8}$ -in. wide and 1-in. long. But for the time being, we think Electro-Voice probably has the smallest: its so-called Power Point. The thing is only about $\frac{1}{4}$ -in. in diameter and about $\frac{1}{2}$ -in. long, yet it's a complete turnover cartridge with two styli! The Power Point is not claimed to be a hi-fi unit; it's designed for the replacement market in the commercial field, but there it is doing a big job.

New in Indianapolis

A reader from Carmel, Ind., reports a new FM station in Indianapolis; WFMS, providing good music throughout the day at 95.5 mc.

New in Stamford, Conn.

Westlab Electronics, well known in Yonkers, has opened a new store in Stamford at 1105 E. Main St.

Toothpick

Dentist friend of ours uses dental picks (and shovels? wonder what the trade lingo is?) for all sorts of fine work around his home workshop. Always thought the idea was fine, and wished we had some. Now comes A. Lawrence Karp, 16 Putnam Park, Greenwich, Conn., with a set of three dental instruments (six points) which he'll sell you for \$3.95. They'll be mighty handy, getting into tight places, retrieving lost nuts which always slip down behind a mess of wires in the chassis, and so forth.

Back Copies, Please

The Tantasqua Regional High School at Sturbridge, Mass., recently started

Continued on page 34

PILOT and only

PILOT

offers you standard custom high fidelity components in

> CONSOLE SYSTEMS



Pilot has combined component quality with console convenience.

Pilot consoles are actually high fidelity component systems made up of the very same nationally advertised high fidelity components designed for use in custom installations. You can readily identify them by type and model number – you can buy them separately.

The Ensemble 1030D, one of eight superb Pilot console systems, includes the standard Pilot AA-903B 14-watt (28 watts peak) amplifier-preamp, the famous Garrard RC-88 4-speed record changer with diamond-sapphire magnetic cartridge and a perfectly matched 4-way_r 4-speaker system built into an acoustically engineered enclosure.

Next time your friends ask about authentic high fidelity with the 'plugin-and-use' convenience of a single cabinet, tell them about Pilot Component-Consoles. But, before you do, hear one yourself – you're due for a delightful surprise. For complete information, write to:

Over 38 years leddership in electronics.

Electro Voice NEW

Ultra-Sonax and Super-Sonax Very-High-Frequency Drivers

± 2db FLAT RESPONSE WELL BEYOND 16,000 CPS!

Today's folded horn and phase loaded speaker systems with their lowest first-octave response require flat, extended high range response beyond the very limit of audibility if essential musical balance is to be achieved. These very high frequency drivers,

employing the time-tested diffraction principle and the new Avedon Sonophase throat design, overcome range and sensitivity limitations, deliver highest efficiencies and function without distortion at the highest ranges.



The T35, T35B and T350 have widest polar patterns, program capacities of 50 watts, peak 100 watts and 16 ohms impedance. Chart shows other characteristics of each model.

	T38 T36B		T350		
Frequency Response:	± 2 db 2 kc-19 kc	± 2 db 2 kc-18 kc	±2 db 2 kc-21 kc		
RETMA Sensitivity Rating:	57 db	54 db	60 db		
Magnet Weight:	7 02.	4 02.	1 10.		
Gauss	13,500	9000	20,000		
Size:					
Horn:	5% in. long x 2 in, wide		7½ in, long x 2% in, wide		
Pot Diameter:	2¼ in, maximum		31/2 in. maximum		
Depth:	31/4 in. overall	3 in. overall	41/2 in, overall		
Shipping Weight'	3 lbs.	31/2 Ibs.	91/2 lbs.		
Net Price:	\$35.00	\$22.00	\$60.00		

SPECIFICATIONS

Use the E-V Speaker Building Block Plan to improve your high-

fidelity system with these amazing new VHF drivers. Building Blocks are complete component packages you can add to existing systems. Or, start with a basic speaker, step up the quality of reproduction

one economical step at a time by adding Building Blocks.



BB1 (T358) - Adds the very high frequencies; for use with lower cost existing 2-way systems (low-frequency driver and treble driver) and coaxial or full-range speakers having 1 to 2 lbs. of magnet (RETMA sensitivity ratings from 43 to 48 db). Consists af: T35B Super Sonax VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control with wiring harness. Net. \$37.00.



BB2 (135) - Adds the very high frequencies; for use with existing deluxe 2way systems (low frequency driver and treble driver) and coaxial or full-range loudspeakers having 3 lbs. of magnet or more (RETMA sensitivity ratings from 48 db to 54 db). Consists of: T35 Super Sonax VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control and wiring harness Net. \$50.00,

AT37 Cable Harness

BB5 (1350) - Adds very high frequencies with wide dispersion, reserve power and extra sensitivity. For use in deluxe multiway systems having extended bass ranges and sensitivity, such as PATRICIAN, GEORGIAN, CARDINAL and CENTURION (RETMA sensitivity ratings of 50 db and higher). Cansists of: T350 Super-Sonax VHF driver, X36 3500 cps 1/2 section crossover network, AT37 level control and wiring harness. Net \$75.00.
Diffraction Horns and Revolutionary E-V Sonophase Throat Design

The Story of E-V Superiority

This is a conventional high frequency driver with excellent response up to 4 or 5 kc. Beyond this, destructive interference results from the diaphragm's inability to act as a piston.

This is what happens to the diaphragm in the conventional high frequency driver beyond 5 kc. Increasingly higher frequencies cause the phase to shift due to central diaphragm deformation. the hard description of higher frequencies Davied



The Avedon Sonophase Throat Design

The unique throat design illustrated here overcomes the problem of diaphragm deformation with a longer sound path from the center of the diaphragm. This restores the proper phase relationship. This is especially important above 12 kc, where sound must be taken from the center of the diaphragm and from the outer edge simultaneously.



The Hoodwin Diffraction Horn

This is the Electro-Voice development which is used in all E-V horns to disperse sound equally in all laterol directions from a single point source. This is especially important in stereophonic reproduction to preserve the undistorted depth and width of the original sound. Diffraction horns insure balanced levels of both right and left stereo speakers.



These drawings tell the diffraction horn story:



Figure A - This shows how sound disperses equally in all directions from a single point source.



In Figure B two sound sources are shown. On the axis, at point "x", double the sound power results as the resultant pressures are in phase and additive.



But in Figure C, if the distonce between the two sources is 1/2 wavelength or greater, the sound from the two sources will be considerably out of phase for points off the axis resulting in decreased sound pressure.



Figure D

Figure D will show the deficiencies in horns of wide lateral dimensions compared to the wavelength being emitted. Any horn mouth can be considered as a group of small point sources of sound. They must beam the sound down the axis by their very nature.



In Figure E are shown representative horns, illustrating that horns must have a certain length, as well as cross sectional area along this length and at the mouth to load the driver diaphragm down to the lowest frequencies to be reproduced. The lower we go, the longer must be the horn and the greater the mouth area.

radiohistor



Figure F

Figure F shows that narrowing the harizontal area and extending the vertical dimension of the horn mouth preserves the loading area necessary for good low end response, disperses the sound perfectly in the horizontal direction where it is so necessary, and keeps interfering reflections off the floor and ceiling.

This is one more example of the 'Listeneered' superiority of all Electro-Voice high fidelity products. Hear the difference yourself. Ask your E-V dealer to show you haw to dial in these new VHF drivers on his Speaker Systems Selector. Your own ears will tell you why your finest choice is Electro-Voice. Send for Buffetin F79. F79.

ELECTRO-VOICE, INC. Export: 13 East 40th Street, New York 16, U.S.A.

BUCHANAN, MICHIGAN Cables: ARLAS



F20 20-WATT Ultra-Linear Williamson-type INTEGRATED AMPLIFIER complete with Preamplifier, Equalizer & Control Section KIT \$49.95 WIRED \$79.95 Itrol Section KII \$49.95 WIRED \$79.95 Sets a new standard of performance at the price, kit or wired. Rated Power Output: 20 w (34 w peak). IM Distortion: 1.3%. Max Harmonic Distortion: be-low 1%. 20-20,000 cps. within 1 db of 20 w. Power Resp (20 w): ± 0.5 db 13-35,000 cps. 5 feedback equaliza-tions. Low-distortion feedback tone controls, 4 hi-level s 20 lovel inputs. Conservatively rated, fully potted output transformer: grain-oriented steel, interleaved windings. 81/2" x 15" x 10". 24 ths. Matching Cover E-1, \$4.50. E-1, \$4.50.

EICO® 33-00 Northern Blvd., L.I.C. 1, N.Y. H-9 **MISI** IWU-WAY STEARER STOLEM \$35.53 complete with FACTORY-BUILT CABINET Jonson heavy-duty 8" woofer. & matching Jeasen compression-driver exponential horn tweeter. Smooth clean bass & crisp, extended natural highs. Overall response: ±6 db 70-12,000 cps. Power-handling capacity: 25 w. Impedance: 8 ohms. Bookshelf size: 23" x 11" x 9". 25 lbs. Wiring Time: 15 min. Please send FREE catalog & name of neighborhood distributor or hi-fi specialist.

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ADDRESS		
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NOTED WITH INTEREST

Continued from page 31

a hi-fi club for students. They have one copy of HIGH FIDELITY and want more (naturally!!). If any readers have some spare back copies, would they send them along? The Club can afford to pay postage, if that will help.

Biggest Disc?

Audiophile Records has 16-in. discs; Roland Gelatt, in The Fabulous Phonograph, mentions 20-in. discs made about 1905 in London; and now reader James Orr, of West St. John, N. B., Canada, has sent us a clipping with pictures of 27-in. discs. These were used for old music boxes. The Canadian Weekend Magazine says the records and the player (a magnificent contraption like an oversize grandfather's clock) were made in the United States late in the nineteenth century.

Award to WFMT

Radio Station WMFT in Chicago was named one of the three winners of the Alfred I. duPont Radio and Television awards for 1956. This is the first FM station to receive an award. Congratulations!

Legal Advice Requested

We recently received a suggestion from a reader which made a lot of sense to us, but we don't know what the copyright and other complications might be. This reader said that he was disappointed by the poor quality of the records he borrowed from his local public library. The records were fine when purchased, but the toll of repeated playings, in the booths and in homes (on loan), was severe. He wondered why the library couldn't dub the records on to tape as soon as they came in, then use the tapes for playback in the library listening booths. The library could even loan the tapes to those of its members who had tape playback equipment.

Our reader wanted to suggest this system to his library, but wasn't sure what the copyright position was. We ourselves are not sure enough to give a firm answer; generally, the question of sale (or resale) seems to be the key in such situations, but there are no doubt ramifications. Would some of the legal brains among our readers like to offer their ideas?

1-F.Z81

HF12 12-WATT Williamson-type INTEGRATED

MPL2 12-WAIL WIIIIamson-type INTEGRATED **AMPLIFIER** KIT \$34.95 WIRED \$57.95 Complete with Preamplifier, Equalized & Con-trol Section. Equalized direct tape head & mag-netic phono inputs. Power Output: 12 w cont., 25 w pk. IM Dist. 1.3% @ 12 w. Freq. Resp.t 1 w: ±0.5 db 12-75,000 cps; 12 w: ±0.5 db 25-20,000 cps. 2-EL84, 3-ECC83/12AX7, 1-E781.

HFS1 TWO-WAY SPEAKER SYSTEM \$39.95



"HE QUEST for self-education in music doesn't necessarily involve the dogged study of textbooks in "appreciation" and "theory." For anyone with considerable listening experience (and at least casual acquaintance with everyday musical terminology), the extensive literature of composers' biographies is likely to provide the maximum of useful information with the liveliest of human interest. Even when such works are primarily concerned with the analysis of specific compositions, they are almost invariably brightly colored by the personalities involved or with the circumstances of their times. Plunging oneself into their lives becomes in itself an adventure scarcely less exciting than that of listening-only participation in their recorded musical dramas.

My personal preference is for fulllength studies of a single composer or allied group. Hence in the past I've dodged such collections of briefer essays as those collected and edited by A. L. Bacharach, first in a three-volume Lives of the Great Composers (Gollancz and Putnam, 1935; Penguin reprints, 1942), later expanded to four volumes as The Music Masters (Cassell, London, 1948-54). But on finally reading Volume I of the new series, From the Sixteenth Century to the Time of Beethoven, just reprinted by Penguin ("Pelican" A-388, 95¢), I'm more than a bit abashed at having avoided it so cavalierly before.

Since there are no less than nineteen, all British, contributors (led by A. Hyatt King, W. R. Anderson, and Leslie Orrey), and thirty-eight composers represented (alphaberically from Arne to Weelkes, chronologically from Palestrina to Hummel), these studies naturally vary considerably in both treatment and length, but it seems to be a general editorial policy to emphasize the stylistic and historical setting of each composer. At any rate, even the briefest sketch includes a surprising wealth of illuminating background material - social and political as well as strictly musical - and even the longest ones never resort to dry compilation of isolated events and works. Rather than biography in the

usual sense, this is absorbing musical history in terms of the men who made it, and it can be read with sheer delight and no small profit even by the most experienced musical connoisseur. My only quibble is with the choice of composers: glad as I am to learn more about Clementi, Dussek, Grétry, Hummel, and Martini, for example, I can't help resenting that it's at the expense of chapters on such truer giants as Buxtebude, Frescobaldi, Heinrich Schütz, and others.

The enterprising Penguin organization, whose handsome and often scholarly paperbacks have not been frequently enough directed specifically to music lovers, also is active in another periphery of music appreciation - that of medium-by-medium repertory surveys. Begun with The Sym-phony (1949) and The Concerto (1952), both edited by Ralph Hill, the series is now extended to Chamber Music ("Pelican" A-372, 95¢), edited by Alec Robertson. This is an even fatter paperback (some 427 pages as compared with Bacharach's 372) of eighteen studies by fifteen writers (Andrew Mann, Eric Blom, Mosco Carner, and others). The first eleven deal with individual composers particularly notable for their chamber works; two others with the special repertories of duo sonatas without wind instruments and chamber compositions for wind instruments (both from 1700 only); and the last five more cursorily with the American, English, French, German, and Russian examples not touched upon earlier.

Again the writing is in general notably straightforward and authoritative (at its best, as in Blom's Mozatt chapter, richly illuminating) and the collection as a whole is a chamber-LPcollection handbook as useful as it is convenient. But it suffers somewhat from a lack of editorial consistency in that, while most of the works of the major composers represented are analyzed in considerable detail, those of minor, less prolific men tend to be skimmed over — although it is just here that more extensive information is so much less easily accessible to the nonspecialist. And despite the implication of the title, some sort of introduction to chamber music in general unfortunately is missing.

Sticky Sugar Coating

Another peripheral area (albeit one involving the most pressing perplexities of the novice listener) is that of modern or contemporary music. Unhappily, this is one which, however well suited for panegyrics or diatribes, is seldom served well by an orthodox appreciative approach, particularly when the author endeavors to sweeten what he himself evidently considers to be a bitter medicinal dose. I have admired many of John Tasker Howard's writings, especially on musical Americana, bur I was unimpressed by the original (1942) edition of his Modern Music, and I still am by its present revision (Crowell, \$3.95), for which James Lyons now receives joint credit.

The subtitle has been changed from the crude blurb of "A guide for the bewildered listener, which explains why he may not like modern music and how he can enjoy it more" to the more mealy-mouthed "A popular guide to musical enjoyment," and all references have been consistently brought up-to-date (as have the 17-page discography and 2-page bibliography) -I presume by Mr. Lyons, but the main text remains essentially much the same. Despite its well-nigh desperate efforts to encourage reluctant listeners, the basic attitude is that of someone who feels he should like modern music rather than that of someone who is sincerely fascinated and concerned. And despite the thoroughness of the revision in factual detail, the atmosphere of the book is that of pre-World Wat II, when Schoenberg's work was considered atonal and musique concrète undreamed of. The latter finally does appear fleetingly, as do the terms twelve-tone technique and tone-row, but they are obviously interpolated, and the concepts themselves - so essential to what must be considered modern music nowadays - are never explored in revelatory fashion.

Continued on next page



record changer that makes Hi-Fi easy

for everyone. It does everything automatically, at the push of a button...starts, stops, repeats, pauses, filters! It intermixes 10" and 12" records! It changes from automatic to manual in a moment. And it has the unique "free-wheeling" tone arm that can't jam! No other record-player has all these features! So get a MIRACORD XA-100, if you're assembling your own system . or having your \$6750 dealer hook-up a system for you!

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BOOKSHELF

Continued from preceding page

The problem of approach to music perplexingly new to us remains a wellnigh insoluble one. Personally, I can't imagine that this kind of only superficially analytical approach can do much except further inspire those indomitable optimists who deliberately resolve to like all modern music quite regardless of how incomprehensible it may sound to them. Yet perhaps mine is an unduly prejudiced reaction. Listeners of more orthodox tastes, for whom lare Strauss, Debussy, and early Stravinsky are still modern (and everything later fearsomely ultramodern), may derive new courage, or at least a sharpened curiosity, from the Howard and Lyons sketchy surveys of fairly recent contemporary activities. Whether they'll be better equipped to understand - or even tolerate - current avant-gatde tonal philosophies is another, far more doubtful, question.

What is most needed right now, I feel (next to such recent bold recording enterprises as the complete works of Webern), is a simple, but unsugared, layman's introduction to the principles of serial techniques in general and those of the twelve-tone system in particular. There are a number of technical studies, of course, like the one Schoenberg included in his Style and Idea (Philosophical Library, 1950), Joseph Rufer's Composition with Twelve Tones Related Only to One Another (Macmillan, 1954), and George Rochberg's The Hexachord and its Relation to the Twelve-Tone Row (Theodore Presser Co., 1955), but these are mighty hard going. The most practicable instructional materials I've found so far are H. F. Redlich's analyses in the Berg biography reviewed here last June, but something less rigorous and far more generalized would be even more helpful. Possibly this vital gap can be filled only by an integrated primer booklet and illustrative LP. That might not win a big audience, but it surely would command a considerable number of vitally interested and truly appreciative listeners.

GRACE NOTES

Pocket Encyclopedia of Music. Neither this nor the original British title (Music Lover's Pocket Book) provides a wholly accurate index to the amorphous nature of Harry Dexter's

and Raymond Tobin's 160-page grabbag compilation of highly miscellaneous musical facts and curiosa. Perhaps "The Music-Quiz Contestant's Handy Reminder" would come closest to indicating the range of information covered: all the way from thumbnail historical surveys of the repertories in various media, lists of the best-known composers, definitions of terms, etc., to tabulations of various musical "kings," famous signature tunes, pseudonyuns, one-work composers, points that confuse," etc. . . . A considerable part of all this is likely to be of more concern to British than to American music lovers, but much of the rest may be helpful to the novice of any nationality (Philo-sophical Library, \$2.75).

Mozart and Masonry. Although perhaps only passionate initiates of the "Craft" may be attracted initially by Paul Nettl's archeological exhumation of the minutiae of Masonic musical activities as such, the enlightening study of Masonry's role in the last years of Mozart's life and the detailed analyses of Masonic influences in the Magic Flute and other works are sure to be relished by every Mozartean. Indeed, even to a reader of less specialized interests these 150 pages (with illustrative portraits and facsimiles) reveal facets of late eighteenthcentury life, art, and ideals which are as fascinating as they are revelatorily informative (Philosophical Library; \$4.75).

The Enjoyment of Music. If such a title were not enough, Joseph Machlis' subtitle, "An introduction to perceptive listening," signalizes this as still another appreciation book. As a matter of fact, it first appeared a couple of years ago in somewhat larger form (666 vs. the 480 pages of the present "shorter edition"); but since it then somehow escaped Bookshelf-column notice, I'm glad to have another chance to acknowledge it as one of the better -if hardly topflight - entries in the appreciation sweepstakes. Its materials are orthodox enough, but Machlis writes with more verve than most of his colleagues, includes more than the usual quota of both pictorial illustrations and musical examples, and -best of all-departs from the customary chronological approach in favor of working from the most famil-

Continued on next page

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BOOKSHELF

Continued from preceding page

iar materials (i.e., nineteenth-century romanticism) to those of older eras and the present day (Norton, \$5.95).

Spoken Poetry on Records and Tapes. Good news for poetry lovers, teachers, and every discophile with a special interest in recordings of the spoken word: Henry C. Hastings' comprehensive index of all currently available discs and tapes in this field will save many hours of unsatisfactory searching in commercial catalogues, which seldom list the detailed contents of poetry recordings and often ignore entirely such off-track releases as those by the Library of Congress. In the present compilation for the Association of College and Reference Libraries, some 32 pages are devoted to an alphabetical listing by authors, 14 more to anthologies. There also is helpful additional information on the manufacturers involved and the leading sources of information and supply (ACRL Monograph No. 18, paper, \$1.75; available directly from the American Library Association, 50 East Huron St., Chicago 11, IIL).

Harpsichord and Clavichord Makers, 1440-1840. Listeners as fascinated as I am by the visual attractions and technical details, as well as the sonic qualities, of spinets, virginals, harpsichords, and clavichords will be delighted by the latest documentation of their fabulous history. Donald H. Boalch's magnificent big volume is primarily an alphabetical index of some 850 makers of pre-piano keyboard instruments, but it also includes detailed descriptions of some 1,000 surviving examples, a selective bibliography and glossary of technical terms, and - perhaps most striking of all - 32 pages of uncommonly handsome photographs. To the specialist, at least, this ranks easily as the most attractive gift book of the year, as well as a uniquely valuable reference source (Macmillan, \$12.50).

Opera Caravan. Miss Quaintance Eaton's ecstatic account of the "Adventures of the Metropolitan on Tour, 1883-1956" forced me to abandon the whirlwind caravan long before her some 185 packed pages of anecdotal history were finished, and I could only flip with awe 200 more triplecolumned pages listing casts on tour. But undoubtedly opera fans will share the author's own inexhaustible relish for both the story itself and its detailed documentation. Certainly this is an invaluable contribution to the history of opera in the American hinterlands and not the least of its attractions are the 32 pages of photographs—a diverting album of stars in and out of their stage roles (Farrar, Straus & Cudahy, \$7.00).

Creative Disciplines. Miss Toska Tolces' rather fragmentary case studies and discussions of children's so-called creative-arts teaching programs might have been developed and organized to some purpose; but until the author has achieved a surer grasp on both words and ideas she never should venture into musical aesthetics and philosophy. Her subtitle here, "Studies in Awareness," is a characteristic misnomer, for this little book demonstrates in sticky prose and unfocused thinking the very antithesis of undogmatic, responsive, artistic perceptiveness (Bond Wheelright, \$3.50).

Ivory, Apes, and Peacocks. To anyone first introduced to the (pre-Seldes) "lively arts" by the ebullient James Gibbons Huneker, nothing in the current flood of paperback-reprint "classics" is likely to be welcomed with more enthusiasm than the present resurrection of one of the most coruscating collections of essays by the incomparable "European Art Ambassador to the United States." Like most of Huneker's other works, this one (originally published in 1915 at the peak of his career) has long been inexplicably out of print, but time has dulled none of its sights nor watered down its stimulations. Only three of the eighteen pieces here (those on Schoenberg, Strauss, and Mussorgsky) deal overtly with music, but there are constant musical references throughout the other studies of novelists, roers, dramatists, and painters -- since Huneker was never one to isolate or compartmentalize the arts. What the current young generation will make of him remains to be seen, but if they have deemed him (unread) only a curious historical phenomenon, they well may be pleasantly shocked to find that his gusto, verbal virtuosity, and propheric surery make most present-day critical demigods seem pallid and niggling indeed (Sagamore, "American Cennury" series, paperback, \$1.25).

Panorama of American Popular Music. The title is apt, for David Ewen's survey is anecdocal and sketchy. Best part of the book is the smoothly written discussion of Tin Pan Alley, Broadway's revues and musical comedies, Hollywood's musicals, and the recent efflorescence of true musical plays. There are no illustrations, but there is an invaluable thirty-five-page index covering not only the main subjects and names, but every show and song title mentioned in the text (Prentice-Hall, \$4.95).

Tribute to Nicolas Medmer. Memorial volumes, particularly those devoted to neglected geniuses, are likely to make embarrassing reading, and the present collection (edited by Richard Holt) contains its full share of extravagant eulogies and minor friendly reminiscences. Yet the expatriate Russian pianist-composer, who died in 1951, obviously was a trueif somewhat limited and anachronistic-genius. Anyone who knows any of his major piano pieces, concertos, or songs may feel the urge to hear more after reading the soberer essays herein, those by Blom, Abraham, and Robertson. There are nine photographs, a complete catalogue of works, and a two-page discography - largely of British 78s, for Medtoer still is stingily represented on LP (Dobson, London, via C. F. Peters Corporation, New York, \$6.00).

The Violia Hunter. The name of Luigi Tarisio (C1795-1854) figures modestly in the larger musical encyclopedias, but few people today - even violinists - realize how much they owe to this indefatigable rescuer of neglected and supposedly lost "Strads" and other Cremona masterpieces. Tarisio's single-purposed life is so poorly documented that William Alexander Silverman has had to write less a biography than a tale embellished with fictional conversations and details. Nevertheless, the author's embroideries are spun with restraint and contradict none of the known facts, and the "story" itself should fascinate everyone who has ever marvelled over the treasury of incomparable instruments cherished by the best-known violinists (and organological museums) of today (John Day, \$3.75). R.D.D.



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Where Not to Look for Discounts

NE OF THE WEIRDER TRAPPINGS of our everyday existence is a thing called list price. I suppose it can be called an illusion, though this does not describe it. It has almost no real existence but it has utility. It is attached to the automobile (let us say) or the washing machine you may buy. Its function is to prescribe a limit in a game to be played between you and the dealer. He is entitled to drag you up as close to paying list price as he can without losing the sale. You are entitled to pull in the opposite direction, toward the point at which he would make no profit. The extent of your success is called a discount (or sometimes a turn-in allowance, but this terminology we will ignore here). Nobody pays list price, but the discount will vary according to such considerations as the location of the dealer, the vigor of his competitors, and your credit rating.

This mystique of bargaining governs many markets. Obviously it just (like Topsy) growed; no one ever would have planned such a roundabout system. However, it works reasonably well, and seems pernicious in only one way, which is the reason for this editorial. This is that it has stirred the buying public into making an unwise generalization: i.e., that since discounts should be sought in some buying, they should be sought in *all* buying.

This affects us because we are infimately connected with a rather specialized market wherein, to our way of thinking, the shopper should almost *never* seek a discount. We are talking, of course, about high-fidelity equipment.

This is not written out of sentimental concern over the economic welfare of hi-fi dealers, a hardy crew well able to take care of themselves. We have in mind rather the misguided customer (of recent vintage) who does not realize that there is a difference between a high-fidelity dealer and a washing-machine dealer. Because there is, It is a matter of history.

The washing-machine dealer always has received his wares in a two-step process, so called: manufacturer to distributor to dealer, with a profit markup more or less established for each of the two steps. Further, his list price is (or at least used to be) set for him by the manufacturer, in part through national advertising, and is based on the dual markup. However, as long-time readers will clearly recall, the bi-fi dealer originally was not a retailer at all, but a service wholesaler. The consumercustomer sought him out, to begin with, and was a great surprise to him. Owing to the surprise, the home fi-man managed to get his equipment at the same price as if he had been a retailer. This was "net." Later, and little by little, "net" became "audiophile net" (a term for which we at HIGH FIDELITY may be in part responsible), as the electronics wholesaler changed into the custom home audio dealer. But audiophile net, though no longer a wholesale price, still is nothing like the fictive "list price" quoted in other appliance sales. It is more nearly equivalent to the "discount" price offered — in a competitive neighborhood — by sellers of air conditioners or automobiles. In other words, it does not allow for much further discounting if the audio dealer is to stay in business, continue to eat regularly, and furnish conscientious service.

Conversely, if a high-fidelity dealer *does* offer substantial discounts, on current and well-established equipment, his shop should be entered only with great circumspection. This we could have figured out by pure economic logic, but we haven't had to, owing to a fairly constant flow of agonized letters from erstwhile discount hunters. Their experiences seem to fall into two categories. They have made encounter with a dealer who offered discounts because he was (a) honest but stupid, or (b) neither stupid nor honest.

The latter yield by far the livelier stories. The customer inspects and orders an excellent three-way speaker system at the shop. He receives an enclosure of convincing aspect, which proves later to house a single, very inexpensive eight-inch cone reproducer. (This really has happened.) He repairs in wrath to the scene of the crime, only to find it vacant and plastered with "To Rent" signs. There is nothing be can do, except call the police. He's had it.

Less tragic is the case of the man who buys from the stupid but honest operator who simply was trying to claw his way into business by offering price cuts he couldn't afford. Here the penalty will be merely that the supplier will have vanished by the time the equipment he sold requires servicing. One of his surviving (nodiscount) competitors will furnish the service the customer needs, but since he will probably be well aware of how and where the equipment was purchased, he may be unsympathetic and even brusque about it. For anyone at all sensitive, this can be an unsettling experience, well worth avoiding.

Perhaps it should be added that legitimate bargains, even in high-fidelity equipment, do crop up. If amplifier X-1957 is superseded by amplifier X-1958, and a dealer is stuck with a stock of the former, he may well cut their price. But, if he is an honest dealer, he will make known to you, the buyer, the exact nature of the bargain.

Hnwever, the main reason for this whole discourse is to remind you (or apprise you, in case you didn't know) that custom home-audio equipment is one of very few kinds of commodity whose announced price is not a fiction, but something pretty close to a true indication of what you should pay to get your money's worth. J.M.C. Town pride and politics have brought oversubsidization of Italian opera houses. Now cutbacks seem inevitable, and disaster threatens. What should be done about it?





Rome



Florence





Naples

TALY without opera might seem an impossibility, but not this year. With the single exception of the Scala in Milan, a tower of strength among theaters, not one opera house in Italy is sure of being able to open its doors for the season of 1957-1958. Even the Scala may be obliged to shorten its season or lower its standards, either of which eventualities would be a calamity to devotees of this peculiar art.

Lack of money is the reason, baldly stated, but when you look at the public expenditure which goes on at the present time everywhere in Italy you know that this generality cannot quite cover the case. Never has there been so much money visibly flowing hither and thither in Italy. Entertainments of every kind flourish; the most expensive restaurants are the most crowded; football, horse racing, and countless film theaters draw a public bigger than ever; colossal sums of money pour into and out of various weekly lotteries, the chief of which is on football results. The standard of living in every village has gone up sharply since the war: motorcars, motorcycles, and "scooters" now are everywhere; there are new roads in the most remote districts; programs of public works on a vast scale have changed the tenor of life even in the impoverished south and the barren islands. Prices which frighten the foreigner are cheerfully and visibly paid by Italians in all cities, and this is not a phenomenon of inflation because the currency is perfectly stable, although pegged at a figure about a hundted times below what it was before the war. (That is, a lira of prewar days would be a hundred roday).

In such a prosperous country, what, then, is the matter? When you consider that opera originated in Italy and has never ceased to flourish here, even during times of appalling stress, it is strange indeed to observe that it begins to flag and fail just when the national income has reached such heights. There must be a hidden malady somewhere.

And there is — or rather there are — several hidden maladies in the case. Without going into too much budgetary detail we should like to name a few of them, so that if you chance to visit Italy this coming season and find a dearth of opera on its native heath, you will at least know some of the reasons why.

The country is now and always has been regionalistic to a higher degree than any other in our Western civilization. The United States is highly regional, too; any conversation between a Vermonter and a Texan would substantiate that point. But our regions are large and our regionalism is built to scale, so that it is perfectly possible for one part of the country to go its own way without giving undue thought to the rest in matters of taste and custom (opera, for instance). Chicago can have its own opera season without worrying about New York, and San Francisco does

for Italy's Opera?

not need to bother about either of them — although it is convenient in America, as everywhere else, to avoid competing for the same musical artists for the same weeks or months.

Here in Italy the distinctive regions are relatively small and each one centers about a city which is ancient, proud, filled with historic significance, monuments of the past, and works of art. Tuscany looks to Florence as its wreath of glory (and quite right, too). The Venetian provinces would be without their special character, and even without their special dialect, if they did not cluster about their unique city half in and half out of the Adriatic. And so on, all through the Italian peninsula, there are local or provincial capitals which have a fame in the history of civilization out of all proportion to their size.

And every single one of them (here's the rub) wants a first-class opera house in consonance with its historic importance.

For about two hundred years, when these cities were capitals and many of them had princely courts, opera was a sort of adjunct of government. The sovereign - the Grand Duke of Tuscany, for example - ran an opera house just as he ran a police force and a postal system, as part of his job. That tradition has been difficult to abandon and impossible to maintain. The result today is that the citizens of Florence think they have to have an opera house with an annual season of expensive productions - it would be shameful not to have one - even though they may never think of buying a ticket to go into the place, and even though they would rebel at having to pay for it in municipal taxes. Their answer? Let the national government pay-that is, the central government of the Italian Republic, in Rome, which already has a hard enough time meeting all its innumerable obligations. With a serious shortage of school buildings, equipment, and teachers, the Italian government tends to look upon opera, even though it is a national glory, as something less than strictly necessary at all times and places.

Here, I think, is the main obstacle to a rational solution of this crisis: local pride and prejudice. The simple truth of the matter is that although opera is native to Italy, it is more native to some parts than to others. Anybody who lives in this country for a while catches on to the fact that there are "opera towns," of which Milan is the prime example, and other towns where the citizens prefer to read about their opera in the newspapers. And under the system now making its way to some kind of end, they are all lumped together, which makes the indispensable government assistance nowhere near enough either for all of them or for any of them.

Look at the brass tacks, sharp though they may be: the Rome



Teatro alla Scala, Milan

by **VINCENT SHEEAN**

government is called upon to pay over eighty per cent of all expenses for the opera seasons in some cities, such as Florence, where there is no real opera public. Why? For the pride of Florence: that can be the only answer. I spent a good part of last winter in Florence and went to the opera often - not always at first nights, which are the most expensive, but also at the cut-rate performances given on Sunday afternoons and on other ordinary occasions. The Comunale, a depressingly ugly modern theater built by the city when the famous and beautiful old Pergola became too small, was never filled to capacity at any time when I was present, although the cut-rate performances came somewhere near it. For an exquisite performance of Der Freischütz, with artists imported from Austria, the ground floor was about one-third occupied. Why give Der Freischütz at all if there is no public for it? Furthermore, why must Florence have an opera season anyhow if tickets are not sold? I was informed that most Florenrines were adepts in obtaining free seats, and otherwise rended to reserve their patronage. Certainly it was always possible to obtain any kind of seat you wished, in any part of the house, by cash payment at the surprised box office, and I never saw any other customers there.

The contrast between Florence and Milan is too great to be dwelt upon, but we could at least mention that the Scala is completely sold out at mosr of its performances from November to June, at prices higher than anywhere else in the world (top price goes to \$20 for a season's first performance of any work).

The public, obviously, is different in every one of these cities — and there are twelve of them — which consider their opera season to be a municipal necessity but a national obligation. Turin, Palermo, Venice, Naples, Bologna, Genoa — no two of these beautiful and memorable cities are alike; they owe their undying interest to the very fact that they are different, rich in variety. Why should anybody expect them all to have the same public for opera? This expectation, which flies in the face of common sense, seems to be the underlying assumption of the system. (Natutally allowances are made for size, but the idea seems to be that in all these cities, large or small, there is a public eager to hear opera.)

The present crisis demands a thorough restudy of the entire system and a comprehensive effort to deal with it as a whole, in accordance with a coherent plan. Government aid, which was severely reduced this season and last, has been doled out at the discretion of the Ministry of Finance and the Treasury. To get a coherent plan, which various governments have recognized as a necessity, a new law is required, and was actually tabled in the Chamber of Deputies early last May when the Segni government was overthrown. Government uncertainties now have been added to all the others: nobody can tell what the results will be. An opera director making his plans for next season is without any reliable indication of what money he can count upon as subsidy or subvention to cover his inevitable losses. In this situation not one of the historic theaters except the Scala is in an economic position to go ahead with contracts, although the Teatro dell' Opera in Rome, since it is in the capital and would

scarcely be left stranded, may also feel safe enough to take a chance. A moment's reflection will show what effect this must have on the agreements with technical and mechanical unions, with orchestral and choral workers, and perhaps even more with soloists, conductors, and other musical artists who are in demand more or less everywhere.

If you were, for example, Mme. Giulietta Simionato, with a wide choice of engagements on three continents for the coming season, how much of your singing time so valuable and often so short — would you be willing to commit in advance for Italy? This is the problem every such artist faces, and every opera director as well. I mention Mme. Simionato only because I happened to see her not long ago in the offices of the Scala, but there are many others in the same position. Italian singers like to sing in Italy, where the rewards even in money are quite appreciable; but they also like dollars, francs, pounds, and pesetas, as do we all, and they like to travel sometimes and see the world. What are they to do now? Aside from the Scala and the Rome Opera, what management in Italy can guarantee them anything?

The system is simple enough, and like so many things in modern Italian opera it was Toscanini's doing. In 1921, when the Scala was in crisis, he invented a thing called the "Ente Autonomo," to take over the opera house and run it with the support of the city of Milan. The words ente antonomo (autonomous entity) indicate the legal fiction of a collective personality, like a commercial corporation, but created in the public interest and without profit. The Ente obtained a solid basis at the start (1921) because the city of Milan gave it in perperuity the immensely valuable property of the Scala Theater, ground rights, buildings, etc. Unless you want to count the Cathedral, which would be even more difficult to sell, this is the most valuable property in Milan.

The province of Milan furthermore levied a two per cent amusement rax as an annual income for this Ente. Since Milan pays more for amusements than any other Italian city, including Rome, the arrangement put the Scala on a sound and independent basis. In 1929 Rome followed suit by creating an Ente for its opera; the next were Florence (the Teatro Comunale), and the Academy of St. Cecilia in Rome, a symphonic concert hall. The Fascists seized upon the system in 1936 and made it partly dependent on the central Ministry of Cultural Affairs, without clearly defining the relations of each thearer to its city or to the central government. That law is still in effect. It gave the theaters no more support than they had before - they were still living on the two per cent amusement tax from their own cities -- but a city council, by itself, no longer named all the members of the governing board of its local Ente.

When the war was over, in 1946, the new government took over the whole business, equalizing the amusement tax throughout the country and deciding for itself what part to give each *Ente*. In other words, Milan used to pay twelve per cent amusement tax on (for instance) tickets to the film theaters or race tracks, and two per cent of this went to the Scala; the rest of Italy, aside from Florence and Rome, paid *Continued on page 132* The Air Force celebrates fifty years of air power

by making a record of itself.

by MARTIN MAYER

Come, Josephine ...

"You aren't going to play that thing again, are you?"

The tall, blond young man in black horn-rimmed glasses nodded and smiled happily, and Green vacated his office, the only room with tape-playing equipment in Vox's crowded New York headquarters. As he left, he threw back over his shoulders the ominous words, "We're going to lose our lease."

Ward Botsford closed the door behind him, ignored the comment, and began flipping switches on an Ampex. "You get the really full force of it in stereo." Tape began running through the machine. From the speakers in the corners of the room came a distant twittering of birds and a low, rushing sound. "Wind," Botsford said. Then the room — indeed, the building — shook with an enormous noise.

Eric Schuller, Vox's public relations man, poked his head in the door. "Did you go through the sound barrier?" he asked cheerfully.

Yes.

"Ja," said Schuller, and carefully closed the door again. "And that's not the loudest noise," said Botsford enthusiastically, rewinding the tape. "Wait till you hear the B-47 checking out and warming up. . . ."

THIS was June, and Air Force: A Portrait in Sound, which Vox will issue around the middle of this month, had advanced merely the single step from a gleam in Ward Botsford's eye to a collection of tape boxes scattered in Larry Green's office. The boxes bore such labels as "Take Offs," "Firepower Demonstration," "Demon Control," "May Day." These, moreover, were merely the recordings Botsford had made himself during his three weeks at Eglin Air Force Base in the swamps of northwest Florida. Still to come were tapes of a hydrogen bomb explosion from the South Pacific, the ground-to-pilot communications on the world's record 127,000-foot ascent by the rocket-plane X-1, forty-seven hours' worth of intercom chatter on the nonstop, round-the-world flight of a B-52. From these seventy-odd hours of recorded sound Botsford was to edit a fifty-five-minute record; clearly, the Vox staff had a noisy summer ahead of them.

AIR FORCE FC-396

Like so many other historic events, the record came about by a combination of accidents, some of them fairly serious. It began with an appointment between Botsford and lively young Lieutenant Colonel Hugh Day of the Air Force's New York Office of Information Services to discuss possible recordings of Air Force musical groups. ("We have quite a musical program, you know," Day reminded me when we met later: "The symphony, the band, the strolling strings....") But another notion dawned during the conversation. It was a compulsive one, and it had nothing to do with strolling strings. A very big problem in Air Force community relations is local resentment of the "high-intensity noises" which come to town when a new air base starts operations. The first time

Vox's Ward Botsford prepares to record a B-47 as it warms up.





B-52 dasts past tape recorder during firepower demonstration.

a plane goes through the sound barrier anywhere within ten miles of a town, the telephone at base headquarters begins ringing: Mrs. X has had a miscarriage, Mr. Y's hens won't lay, baby Z is spitting up, and it's all the fault of those damned jets. It was Colonel Day's theory that the unfamiliarity of the jet sounds, as much as their intensity, was causing a lot of the disturbance. "If you were born in the city," he says, "and you'd never heard a cow, and one day a cow let off a moo right outside your window, you'd be pretty frightened. A country boy, though, he'd just say, "That's a cow'. We've found that once people have lived near an air base for a while, they don't even notice the noise any more, because they know why it's there:"

The arrival of a recording director in Colonel Day's office suggested a way that all Ametica might be acquainted painlessly with "the new sounds of the air age." And he had the right recording director, too. Botsford was an aviation enthusiast of long standing, who knew the sizes and shapes and published capabilities of all the operating planes in the Air Force. What he didn't know were the sounds; he was eager to learn, and to disseminate the information. Colonel Day asked him to put his enthusiasm in writing, which he did, thereby passing the point of no return.

So, one day in March, Colonel Day and Botsford took the courier plane to Eglin AFB, a 465,000-acre plot on the Gulf of Mexico which is headquarters for Air Proving Ground Command, to make a reconnaissance visit. "Ordinarily," Colonel Day said, "you'd have to go to a Strategic Air Command base for the sound of a B-52, to Tactical Air Command for the sound of an F-102, an Air Rescue Squadron for the sound of a helicopter, and so on through the thirteen air commands in the United States. At Eglin, though, you get everything. Every production-model airplane for the Air Force goes through APGC for 'employment and suitability testing' - the weapons platform (i.e., the aircraft itself), its armament, and all the related support items are put through simulated combat. This is going on all the time, so we wouldn't have to stage anything for a recording - it would all be real." In addition, APGC was planning an "aerial firepower demonstration" for a "civilian orientation conference" in May. The demonstration would call for nearly every operational plane in the current Air Force to fly by. fire its guns and rockets, and drop its (nonnuclear) bombs in full view of a grandstand of distinguished visitors. Because 1957 is the fiftieth anniversary year of military aviation, the Air Force was adding to the demonstration a display of vintage aircraft, starting with the Spad and Nieuport fighters, armed with Vickers machine guns, which fought the aerial ducls of World War I. Getting this show in the air, of course, was a maximum effort for the base. Eglin's commander looked over his tight personnel dispositions and allowed as how he could spare one man and one truck to help Botsford record the demonstration and the activities of Air Proving Ground Command.

Meanwhile, Botsford had been looking over the terrain and noting problems. First, there was the wind, which blew in hard over the Gulf of Mexico and would make a roar in any good microphone. Required: wind screens. Then there was the steady noise level over the field, which would have to be blocked out somehow. Simple directional mikes would eliminate much of this general sound, but they would catch only a single moment of a plane's takeoff run. Required: a special directional rig which could be aimed down a runway and swiveled as an aircraft passed by. Finally, there was the sheer intensity of the sounds to be caught: Air Force engineers had measured the sonic boom at 170 db, and estimated the sound of a B-47 starting its engines at something like 250 db, above the threshold of hearing. (The maximum crescendo of a full symphony orchestra measures a little over 100 db.) "An ordinary condenser mike is much too sensitive," Botsford says. "A sound like that would turn it inside our. And you know what a ribbon mike sounds like when a soprano shouts into it, it just shatters." Required: a new, a very special, microphone.

On return to New York, Botsford shopped the manufacturers and found his mike: the Astatic 988, a new dynamic microphone with a mylar diaphragm. "Its guaranteed not to distort up to 150 db," Botsford says. "In my opinion, it won't distort there, or some distance up from there." To hold it and swivel it, he built a special platform with a concave sound reflector: the mike would be aimed into the reflector at a moving airplane. To block off the wind, he also designed and built special portable wind screens (which, in the event, did not work at all: two days of recording were lost to the west wind).

In late April, having passed altitude tests and the "extreme medical" at the physiological lab at Mitchell Air Force Base, having signed documents declaring his life insurance invalid and holding the government blameless if anything happened to him, Botsford gathered together his microphones, his special platforms, his wind screens, and Colonel Day, and headed back to Florida. Also in his luggage were three tape recorders: an Ampex 350-2 for work which was to be done in one place ("It's supposed to be a portable unit," Botsford says with some bitterness, "but the man who calls it portable has rocks in his head"), an Ampex 601 for work that required moving around, and a Tapak, a shock-resistant unit with a spring-wound drive and a battery-operated recording amplifier, to carry along on airplanes.

One day was spent at the end of a runway, with Coloncl Day and a sergeant aiming the microphone platforms. Botsford on the pickup truck mothering the electrical generator and the Ampex. Another day went to Demon Control, picking up instructions and comments as jet fighters scrambled to investigate a bogy on the radar screen. (After considerable "no joy," meaning no target in sight, the bogy turned out to be an airliner off course, as it usually does. Vox will print a glossary booklet to help listeners translate the intercom material on the record.) During this operation Botsford also was able to tape a May Day, an aircraft in distress with the pilot bailing out ("What's my pigeon?" meaning, Where am I?) and the boats heading into the Gulf to pick him up. One bit of realism was later added to this conversation: the sound of an ejection seat leaving an airplane.

Later Botsford took his mikes and his Ampex 350-2 out onto the flight line to get the sounds of the jets warming up before proceeding to runway. There was the F-100, which makes a sound Borsford describes quite accurately as "the biggest audio oscillator in the world, going up in pitch and intensity together." And then there was the famous B-47 warm-up, the loudest noise on the grounds, six jets of 10,000-lb. thrust each, uncounted decibels of noise with the mikes right ahead of the wing tips. "It was probably," Botsford remarked, "the only recording ever made with ear plugs on." This venture almost ruined the mikes, not because the sound was so intense but because the B-47's swept back wings droop at the tips when the plane is moving slowly. As the plane began to roll forward, wings dragging toward the microphone mounts, an alert airman saved the day with a running leap and wave of his hand.

The mikes did get damaged, however, by the sonic boom. Always after realism, Botsford wanted to get the boom as it comes on routine training flights, but pilots at Eglin train at 40,000 feet up, and the noise on the ground was more like the popping of cap pistols than anything else. Botsford asked control tower to send a plane lower for him, and Captain Bob Ronca, a hi-fi enthusiast when not flying the F-100, happily brought his craft down to 1,000 feet to give a sonic boom what was a sonic boom. Botsford was delighted with the results, but like any recording director he wanted another take just to be sure, and he asked Ronca to come around again. "I guess he figured," Botsford says, "that if a thousand feet was fine, twenty-five feet would be twenty times as good. Anyway, he came by at twenty-five feet with a sonic boom and drove us all out of our minds, and the shock wave knocked the microphones off their platforms. They weren't ruined, but it didn't do them any good, either." Colonel Day, who was not present on this occasion (by some strange irony, he had picked up an ear infection), doubts that Ronca made his pass at twentyfive feet: "You don't fly 770 miles an hour that close to the ground. Maybe it was three hundred feet, though that would be pretty low." Colonel Day considered the matter for a moment and grinned. "I'll bet, though, that it sounded like twenty-five feet."

It was Ronca, again, who gave Botsford the sound of a jet afterburner, an additional fuel supply which ignites in the hot exhaust gases and enables a Century model aircraft to fly straight up at supersonic speeds. Ronca brought his F-100 directly over the mikes and then turned the plane on its tail, heading for the tropopause (around 35,000 feet), which he reached in about three minutes. This sight was too much for the NCO manning the mike; he broke Botsford's rule of silence with: "Man, isn't that beautiful!" He may have said more, too, but there is no way of knowing it; at that moment Ronca cut in the afterburner, and the rest was sound and fury.

Throughout all this Botsford was operating the controls on the recorder strictly by guess and by God, flying, as they say, by the seat of his pants. When he used stereo, be set the mikes about 350 feet apart ("Don't ask me why, because I don't know"). He tried wearing carphones to catch the sounds through the amplifiers, but the contrast between silence and deafening noise was hopelessly great; and there wasn't much that could be done about the level controls, anyway. "If you had it right one hour, it would be wrong the other, because the wind would shift or the planes would be coming in on a different angle or the moisture in the air would change. It had to be cenie-meenie-minic-mo." Every night Botsford went back to his hotel room and relived the day's experience, playing back the tapes. (He doesn't know what the hotel management thought of this; they didn't say.) If something was fuzzy or a failure, he went back the next day. and tried again.

He even had two chances

Continued on page 143



Lt. Col. Hugh Day tracks an F-86 with parabolic microphone.

by sylvia wright

excuse my dust, donizetti ...

MODERN LIFE demands bizarre adjustments: one of mine concerns cleaning.

Every Saturday afternoon in winter I clean my apartment to the radio broadcast of the Metropolitan Opera. I like opera. I listen to it. This is the difficulty.

If only one opera in the Metropolitan tepertoire were right to clean to, once a winter I could breeze through my chores logically and precisely. I never can. Every Saturday I leap from dusting to mopping, from scrubbing to polishing, abandoning a cloth here, a mop there, in a conscientious attempt to stick with the pace and mood of opera and clean at the same time.

If I were not saddled with the Metropolitan, I would clean in the following order: straighten up the room, dust Venetian blinds, clean window sills, brush lampshades and upholstered furniture, dust surfaces, mop floor where rugs aren't, vacuum rugs. Clean kitchenette. Clean bathroom, including washing floor. Odd jobs — polishing brass and silver, cleaning windows and mirrors would be sandwiched in as they fell due.

McGraw-Hill book, Get Away From Me With Those Christmas Gifts

This order makes sense: it chases the dirt from above to below. But I have had to give it up, because operas don't work this way.

Consider the Marriage of Figaro. It opens, as an opera should, with an overture. Overtures, though not all composers seem aware of it, are for tidying up. The overture to the Marriage of Figaro is one of the best: it impels you to a gay scurry ideal for the purpose. And then, on to the Venetian blinds!

You can't. When the curtain goes up; Figaro is measuring and planning and Susanna is trying on a hat. Their music is for rearranging your furniture in different positions, or for trying on a hat, and preferably for both. And you don't have much time because soon Figaro will swing into "Se vuol ballare," one of the best woodwork-washing pieces ever composed.

The opera has barely started, and already my cleaning plan has been thrown off.

(Someone is wondering about bed making. The answer is that the opera starts at two p.m. and I don't want anyone to think that I am in the habit of leaving the bed unmade all morning. But it can happen, and if it does the bed should be made first. Composers do not realize this: bed-making music almost never occurs until the opera is well along. The first suitable moment in the Marriage of Figaro is Cherubino's "Non so più cosa son cosa faccio." This aria demands that you make the bed from scratch, that is, take everything off, turn the mattress, and change the sheets, because it begins with nervous vitality and turns tenderly reflective in time for smoothing and tucking in.

Mozart's operas are full of fine bed-making arias. In Don Giovanni, one might choose "Deh vieni alla finestra" for a studio couch. Plump the pillows to the plucked accompaniment. For a king-sized double bed: the Catalogue Aria.)

How would I like an opera to open? With Venetian blinds — that is, music which requires delicacy and reaching — obviously, a coloratura aria. "Caro nome," for example, would be excellent.

Venerian-blind music is ricklish. When one is on a stepladder and a soprano flats, one grasps for the nearest thing handy. Once during the mad scene of *Lucia*, I brought down a whole blind. An example of Venerian-blind music par excellence is the Queen of the Night's "Die bölle Rache," from The Magic Flute, but it demands great balance and control. On the other hand, Fiordiligi's "Come scoglio" in Così fan tutte should not be used to blinds. The gaps are too wide. If you stay with the music, you will fall. During this aria I keep my feet on the ground and dust alternately a picture and the baseboard below it. This is what it is for.

One should do Venerian blinds the first thing, when one is fresh and alert. But how many operas open with a coloratura aria? One must fit the blinds in as the composer wills. Wagner, during the Ring cycle, wants them left dirty. The forest bird is his only Venetian-blind moment, though if one has mastered a sort of scooping motion, one can manage a few slats while Brünnhilde ho-yo-to-hoes.

When there is no overture, the opera's opening chords establish one's cleaning mood. Aida, which contains some splendid cleaning music, opens badly, with some questioning chords. They question the whole idea of cleaning. One sits down and wonders if it might not be better to put off cleaning until next day and the Philharmonic.

The thing to do is to bide your time through "Celeste Aida," the trio, and so forth, while making something quiet and thoughtful like an icebox cake. The real cleaning music begins with the entrance of the king, Ramfis, the priests, and Tutti. "Or, di Vulcano al tempio muori" is a magnificent bathroom-floor scrubbing piece, if the bathroom is not too big or the floor too dirty. With "Ritorna vincitor!" one must rest again, or else finish the icebox cake, for Aida in recapitulatory distress is of no use until she gets squared away with "Numi, pietà," fine for mopping up the water you left on the bathroom floor.

But if the icebox cake requires using an egg beater for whipped cream (one of mine does), I would advise making it during the next scene. Here we are in the remple, and the priestesses are singing to Immenso Fthà. Ordinarily, I am very much against doing anything during an opera which provides a counternoise, but the opening of this scene is true egg-beater music, swivelly, low-keyed, and not so fast that it tires your wrist. However, the scene is also good for polishing silver, particularly some piece which has small derails (song of the priestesses) and large plain areas (more vigorous song of the priests).

An even better example of egg-beater music is Senta's Continued on page 128

by John H. Newitt

Part 1

This series is written expressly for readers with no technical background and no acquaintance with hi-fi equipment or techniques. It is meant to provide for the novice an opportunity to start from scratch in acquiring the necessary background to appraise his equipment and to evaluate future purchases. To the more technically advanced reader, some of the material will certainly be familiar. However, he too may acquire new information and a firmer grasp of first principles and their relationships.

A Hi-Fi Primer

Our intention is not to make technicians or engineers of readers; the subject will be covered primarily in breadth rather than depth. Only the depth necessary properly to understand basic principles and apply them in evaluative processes will be reached. For those interested in increased depth there is a wealth of information, including several books, that pick up where this series ends. We will be glad to answer queries about more advanced andio literature.

T ONE TIME or another most of us have heard A something about the "building blocks" that make up a hi-fi system - tuners, amplifiers, pickups, tweeters, and so forth. Let's start out by analyzing these basic blocks to see just what each one does and why each one is needed. Since the interests of some listeners do not require all of the available blocks, any system should be examined from the standpoint of individual needs as well as from a general point of view. After we know why these blocks are in a system, we shall go on to discuss what there is about each that characterizes it as a high-fidelity component. Why is the equipment as it is? What does each piece do? What are the technical differences that make one better than another for a particular purpose? Once we can clearly answer these questions, we should know how to select equipment that will do the best job for us. Perhaps we also will know how better to arrange and employ the equipment we now have.

Inevitably some technical points will emerge in such discussions but these should be relatively easy to understand by example. High fidelity, much like photography, is based on complex technological developments; yet the



A "system" can be defined simply as an integrated group of building blocks. Complex systems obviously involve more blocks in kind and in number than do simple ones. Versatile switching arrangements frequently are employed to select and combine the blocks of a system in various ways. Yet no matter how simple or complex a particular system may be, it still must have certain of the basic blocks in order to function. As a first step we will, therefore, discuss a simple system employing the basic blocks. Later we can progress to the consideration of a complex system with the full realization that it is nothing more than the basic system to which have been added certain accessories and gadgets.

Fig. I is a "block diagram" of the simplest type of high-fidelity system. Just as in any flow chart, the lines between the basic blocks depict the organization of and relationship between the elements, while the arrow heads show the direction of flow. After we are well acquainted





HIGH FIDELITY MAGAZINE

with the direction of flow, it will not be necessary to draw the arrow heads.

While the diagram in Fig. 1 seems almost too simple to require study, it can, nevertheless, demonstrate several basic principles. First, let's consider what goes into the amplifier and what comes out of it. The "input" and "output" of any device are always a matter of some importance. A device that produces something useful as an output always requires some form of input. Our normal interest may be only in the output, but we find ourselves compelled to meet the input requirements in order to secure the output. By analogy, though nobody likes to buy gasoline for his car, he certainly is dependent on the work it does for him. Therefore we must be concerned with meeting the input requirements of system elements and we must also know how to utilize their outputs. Any investigation of a system is vitally concerned with both these important characteristics.

Why, then, do we have an amplifier in a hi-fi system? The answer is that the output from a phonograph pickup is not sufficiently strong to actuate a loudspeaker directly. The available signal must be built up to the proper power level by the amplifier before it can drive the loudspeaker audibly. It follows that we must concern ourselves with the power output rating of an amplifier; we want to know if it will produce the loudspeaker volume we need for our particular application. The amplifier is, therefore, an intermediate element in our system, used between an input device (such as a phonograph pickup) and an output device (such as a loudspeaker). We must of course be sure that our particular input device will supply the type of input suited to our amplifier (we have to burn gasoline, not ketosene, in our automobile).

To show the amplifier's versatility, let's use it in other ways. Fig. 2 is a block diagram in which a tuner (AM or FM radio receiver) is connected to the amplifier. This, with Fig. 1, demonstrates how individual needs may affect the block diagram. Fig. 3 shows still another atrangement (still simple and basic). Here a tuner is connected through an amplifier to a tape recorder instead of a loudspeaker. This arrangement normally would not be used by itself, but nevertheless it is an example of a system put together to perform a specific job.

We can now begin to see a common pattern in these system arrangements. An amplifier is *always* used. One or more input devices may be employed to supply signals to the amplifier. One or more output devices may be



Figure 3

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involved to utilize the strong signals produced by the amplifier. Further, the elements (blocks) may be hooked up in the atrangement that best suits the individual needs of the user.

Still another pattern becomes apparent at this point. One can add to the basic amplifier-loudspeaker system as his experience increases or his desires change. Cash outlay for equipment does not have to be made all at once; units can be added as desired. Fig. 4 shows how the basic diagram of Fig. 1 can be supplemented. If we make our additions one at a time, with due forethought, we shall be far better off than if we attempt to assemble a complex system in a single effort. Planning for the proper integration of system elements is vital for good results.

One important way in which the various pieces of audio equipment differ is in the kind of power that must be furnished for them. Equipment that employs tubes or transistors must be supplied with direct current potential (DC). Since the notmal house-current is alternating current (AC), this must be converted to direct current by the use of a power supply. The power supply was not indicated in the preceding block diagrams, since we were concerned only with the signal (music) path. A power supply is simply a necessary evil as far as our system is concerned.

When you consider the various elements of a system in detail, it is well to think of each element in terms of its power level. Power, in general, refets to the rate at which work can be done. The type of this power is also important: i.e., whether it is electrical or mechanical. Amplifiers are electrical devices only, while loudspeakers and phonograph cattridges are electro-mechanical devices.

In this connection, it might be well to recall that no physical system can indefinitely deliver more power than is supplied to it. If this were not so, we should have had perpetual motion machines long ago. Since an amplifier takes in a weak low-power signal and puts out a highly strengthened version of its input, it might at first seem that we have violated the rule. This is not



the case, however; we have noted that in order for the amplifier to work, DC power must be supplied to it as well as the input signal. The amplifier tubes use the DC power to build up the input signal — one might say that the weak input signal feeds on DC from the power supply in order to strengthen itself. The amplifier is thus termed an "active" element in the system, since it contributes materially to the power of the resulting signal.

Here we have developed an important basic rule. Active elements (those which increase the signal level of the system) must be supplied with auxiliary power in order to accomplish their task. Passive elements which do not require a power supply actually dissipate useful power; consequently, they account for power losses in the over-all system. The design engineer must take the passive-element losses into consideration and provide enough power gain in his amplifier to overcome them.

We should think of the phonograph pickup, for example, as a low power level device, since the electrical output power available is very low. A loudspeaker, on the other hand, is a high-level device, because a lot of power is needed to run it. Between the two, the amplifier is an essential element needed to make the system workable.

The loudspeaker (a passive element) acts simply as a converter of power: i.e., it takes in electrical power and puts out acoustical power (sound waves). Since we can't hear electricity as such, this converter is, of course, absolutely necessary to the system. Old loudspeakers (before the days of the Alnico magnet) used a power supply but only to do the job the magnet now does. The electrostatic loudspeaker of today needs a power supply also, but this power supply is used only to maintain proper operating conditions (it creates an electrostatic "field"), and it does not contribute signal power to the system. Loudspeakers are actually such poor converters of energy that only about 5% (in some cases, far less) of the electrical input power is realized in the form of acoustic output power. This is why powerful amplifiers must be employed to produce suitable acoustic volume.

The phonograph cartridge and the needle structure constitute an electric generator, and the assembly does not require external electrical power for its operation. An electric output, in this case, is actually derived from the mechanical energy supplied by the turntable of the system, just as a steam engine at the power station is a mechanical power source for the electric generator that supplies our home electricity.

Beginners should make certain that they understand the basic functions of the major elements in a sound system. Understanding the function does not imply an intimate technical understanding of the details of operation, but it does imply that the user knows why each unit is in the system and what it contributes to or takes from the system. The following information, which describes the individual unit function in more detail, will be a helpful beginning.

Fig. 5 shows the block diagram of Fig. 1 in a more detailed exposition. Nothing has been added; the basic blocks have only been broken down into sub-blocks. It should be noted that the identities of the three blocks in Fig. 1 are maintained by the use of shaded areas. Note that every element except the record (which is the source of the signal) has a designated input and an output. The input to the record might be considered to be the intelligence contained on the stamper die that formed the record. In a sense, then, even the record has an input, and is simply a storage device for the original program intelligence.

As was pointed out earlier, a tuner could be substituted for the phonograph portion of the system. In such a case, the tuner is not a storage device, but it is a device that can take the program intelligence sent from a distant station and deliver it in the form of an electric signal to the input of our amplifier. So far as the amplifier is concerned, it makes no difference at all where the signal originates, as long as it meets certain electrical input requirements. This is true of any audio system and the manner in which these things are accomplished very often constitutes the difference between a high-fidelity unit and its low-fidelity counterpart.

A phonograph record has a spiral groove which runs from its outer edge to a point near its center. This is a track which is used to guide the travel of the needle placed on the record. The Continued on page 140





HIGH FIDELITY MAGAZINE

Music for Millionaires

by FRITZ A. KUTTNER

"PANEYKO, Paneyko... wait a minute," I mumbled. I had known this name, but when and where? Albert J. Franck, infallible oracle on anything connected with the history of sound reproduction, smiled patiently. He would not spoil my guessing game. "I've got it," I burst out, in a sudden flash of recollection: "Paneyko. Economist. Writer on sociology, political sciences, and the like. When I was a student in Berlin, we had to read his books. — He used to give guest lectures at Berlin State Academy, too."

"Not bad," said Albert, "quite close indeed. But that was the father, Basil. I am speaking about Mirko Paneyko, the son. Incidentally, Paneyko senior died recently in Venezuela. The son lives in Fairfield County, Connecticut, and is a wizard in electronic engineering. I think you should go and see him. He might be able to show you some things in sound reproduction that would amaze you. He was building big custom sound installations — quite extraordi-

Mirko Paneyko and custom amplifier. This one is for a school.



nary ones — as far back as 1930, an era when the term high fidelity had barely been coined."

THE PREMISES of the M (irko) P (aneyko) Engineering Company are in Easton township, two miles notth of the Merritt Parkway, in hilly country and real rustic solitude. Today, if you wish to call, you may get in advance a printed map with arrows guiding you to the site. It wasn't always this way. During the war, when the Paneyko plant did secret defense work in radar and other communications instruments, government security agencies advised that armed guards should protect the factory. Paneyko disagreed, arguing that this would merely attract attention to the plant. So the F.B.I. sent an investigator to make a firsthand report. One morning the officer from Washington got off the train at Bridgeport, having found the factory listed under a Bridgeport telephone exchange. He asked there for directions. No one seemed to know where the MP Company was. He next proceeded to Fairfield, that being the company's mailing address. Again, he found no one who ever had heard of the place. At 5:30 p.m. he stumbled onto the grounds, completely exhausted from a full day's search. When Paneyko came out to greet him, the officer groaned: "Dr. Livingstone, I presume!" This settled the question of armed guards.

Hearing about Paneyko's family background and formative years, one cannot help wondering what circumstances actually make a successful and inventive engineer. His father was a scholarly and prominent citizen of the Ukrainian city of Lvov, where he published a newspaper and taught at the University. After World War I, he became Secretary of State of the Ukrainian Republic, and represented that still independent nation at Versailles and Geneva, leaving young Mirko at school in Lvov.

Shortly afterward, violence broke out in the Ukraine between the communists and various nationalist factions. By 1919 Lvov was a battleground. Mirko, then aged ten, decided one day he had had enough, and set out to join his father. With the help of an American journalist he escaped in a Panzerzug, or armored combat train. The last stretch to safety was across a railroad bridge, with shells bursting around the lone locomotive in whose engineer's cabin Mirko rode, the Panzerzug having been left behind at the river's bank. He arrived in Vienna unhatmed, and went on to Switzerland, where he entered a boarding school.

He continued his education in schools all over Europe for the next seven years, a process which seemed to suit him very well, for at sixteen he took a baccalaureate in philosophy and at seventeen another one in science.

During these years, too, the basis of his future interests and career began to form. When he was twelve, he started building crystal radio receivers, which he sold at cost to school classmates. The next year, De Forest's new "audion" tubes became available in France, and Mirko made his first audio amplifier. Three years later he designed and built a loudspeaker.

In the fall of 1926 he came to the United States — with fifty dollars in his pocket — and registered at Massachusetts Institute of Technology as a student of electrical engineering. To pay his way through school, he washed dishes in the students' cafeteria and set himself up as a translator, working in any of five languages: German, French, Polish, Russian, Ukrainian. His major translation achievement of that period, he recalls, was transcribing from the Polish original, for the Submarine Signal Corporation, the secret specifications of the underwater defenses of Danzig Harbor. In 1929 he took his B.S. He stayed on for a year in graduate work, then quit M.I.T. to establish himself in business.

In his senior year at Cambridge he had built — for his own enjoyment — his first good phonograph. It had (and remember that electrical recording was only two years old then) separate bass and treble controls, operated remotely from the listener's chairside, and separate bass and treble speakers! It sounded so good, by comparison with anything theo available on the market, that he at once made up his mind to become a manufacturer of custom phonographs.

Going into business — a manufacturing business, anyway — on a shoestring is a fantastic proposition, an economic absurdity. Paneyko's workshop was in a loft atop a Chinese laundry in Cambridge. It was unheated, a fact which Mirko bore stoically but which he could not explain to his roommate, a handsome tomcat. He solved the problem in the engineer's way — a cat cushion stuffed with heatemitting calcium chloride. The next winter saw the installation of a pot stove, but Mirko's meals still consisted, often enough, of two boiled poratoes in the cafeteria, moistened with olive oil, cruets of which were on the dining tables.

One phonograph at a time-that was the production schedule. His memory still harbors the agony of drilling steel shafts with a hand drill, ten minutes each, and of boring holes in steel chassis. It was during these years that Paneyko started his weekly open-house evenings of recorded music. The scene was grotesque enough: the laundry loft, candlelit and warmed by the glowing pot stove. But the unprecedented realism of the sound was irresistible, and it attracted audiences as distinguished as any one could have wished. Many of the old proper Bostonians attended regularly; the Governor came, as did Arthur Fiedler, the pianist Sanroma, Harold Jefferson-Coolidge, and Richard Norman Fay, organizer of the Chicago Symphony Orchestra. There they were, the ladies in the splendor of their evening gowns seated on the few available folding chairs, the men in tails or dinner jackets squatting on the floor. In the intermission cookies and wine were served, an extravagance of continental hospitality which may have necessitated Mirko's daytime austerity-diet. One of the regular visitors, Robert H. S. Phillips, now a music librarian with the New York Public Library, became so fascinated that he threw in his lot with Paneyko and joined him in the loft for two years, as unpaid assistant. Mr. Phillips recalls with a smile that the two of them shared almost everything equally, especially what-

The audio wizard of Fairfield County doesn't believe in born londspeakers unless they can be big. In foreground, the author.



ever cash came their way. Most of Phillips' "investment capital" in the Paneyko enterprise went for coal during the winter; what was left went into an emergency fund for cigarettes.

In the summer of 1933 the whole outfit moved to New York City (without the pot stove). Paneyko took a duplex in the East Thirties; it served both as factory and residence. Phillips came along and was part of the ménage for a year and a half, after which he left, somewhat sadly, for the comparatively uneventful life of a Fordham law student.

However, the New York setup soon became again a two-man operation. This time it was August C. Spectorsky (author of the recent best seller, *The Exurbanites*) who took on the manifold duties of underpaid assistant, expert potato cook, handy man, and full-time sound addict. Spectorsky stayed three years, but life in the Paneyko household lost some of its Bohemian character in this period, because Mirko matried. The lady of his choice was Leonore Lane, a level-headed Smith College graduate from New Hampshire, and although it would be too much to say that she domesticated him, she certainly introduced some regularity into his eldritch regimen.

The evening concerts, however, continued, in the lower half of the duplex, which was large enough to serve as a combined music and business showroom. The guest book of that period shows an impressive number of names important in music — Roy Harris, Harrison Kerr, Edgar Varèse, Douglas Moore among the American composers; of the conductors, Leopold Stokowski, Alfred M. Greenfield, Arthur Mendel. Paneyko cannot recall whether he made any real money then, but he does remember that they had lots of fun.

In 1934 also Mirko bought the Connecticut place. He had two reasons. He wanted to explore the outdoor aspects of music listening. And he had come to the conclusion that the incessant noise of big city life blunts the sensitivity of human hearing. In 1939 he wearied of commuting and closed down in New York; the little Easton plant had meanwhile developed into an orderly manufacturing activity.

What was it he built and sold? Primarily high-cost phonographic installations guided by one principle only:

Boss at work: pipe-smoking Paneyko likes to use his hands.



no financial and construction compromises. A \$600 system (in 1933, mind you!) was the cheapest catalogue item; the average Paneyko system cost nearer to \$3,000. But he delivered at least thirty installations for upward of \$6,000 apiece. The most expensive job he ever undertook was ordered for the home of a Pennsylvania businessman, whom it cost \$12,000. It took Paneyko a full year to accept this order and another year to complete it, while three fat correspondence files accumulated on the project (I saw them). Installations such as this - the man's music room was 100 feet square and 60 feet high - gave Paneyko the reputation of being a sound architect for multimillionaires, which now he wishes he could lose. He wants it known that he also makes very fine instruments fot medium-sized incomes; in fact he needs the business from average income customers. The days are gone when one could make a living from millionaires alone.

The first Paneyko commercial sound system — designed in 1930 and used in his loft concerts — had four separate controls: bass, midrange, treble, and volume, and they were remotely operated, from the listener's chair. It used eight separate speakers: two exponential high-frequency horns, two 4-inch high-frequency cones, two 10-inch middle-frequency cones, and two 12-inch low-frequency cone speakers, all mounted in one large baffle 8 x 8 feet square. The amplifier, in six stages, weighed Soo pounds.

This being the case, there is no reason to disbelieve Pancyko when he claims there is not much performance difference between his 1930 installation and a first-rate 1957 hi-fi system. He stresses the fact that there has been no *revolutionary* invention in sound reproduction for three decades. Nearly all present principles of construction and circuitry were known in 1930. Achievements since then have been mainly in the fields of subtle refinement and in mass production techniques.

Some of Mirko's methods are in no way original. They achieve their superior results simply by the rejection of compromises. His best amplifiers, for example have no output transformers, because even the best of these always are apt to introduce a certain amount of distortion. Instead, he uses a greater number of amplification stages, the last stage feeding directly into the speaker system. His control instruments do not operate on the "hinged" boost or attenuation principle for bass and treble (which produces a more or less steep curve of frequency response). His control system could be called a "rerracing" or "elevator" principle which raises or lowers a given sector of the frequency band as a unit. Furthermore, he does an exhaustive job of matching and integrating all components used, from cartridge to amplifier and speaker, blending their functions to produce the cleanest and truest sound to be had from the combination. This principle has been used often enough by the makers of complete phonograph systems, of course, particularly of low and medium quality, but usually with the intention of making a series of inexpensive components sound acceptable. Paneyko's motivation, however, is to get the purest sound out of expensive and uncompromised components. The basic amplifier is designed, tested, and measured on its own merits and rarely needs any alterations. Continued on page 138

SEPTEMBER 1957

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HEREWITH this department's annual company-by-company report on The Avalanche. All records noted below are scheduled for release before this coming Christmas.

ANGEL: Pleoty of operas, as usual, with plenty of Callasthenics. The formidable Maria will be represented this fall by Bobème, Sonnambula, Il Barbiere, and perhaps Turandot. Straussians can look forward to a Karajanled Rosenkavalier (Schwarzkopf and Edelmann) and Debussyans to a Parismade Pelléas (De los Angeles and Souzay). From Glyndebourne, Rossini's Comte Ory.

Beecham contributes a Peer Gyni, the L'Arlésienne Suites, the Jupiter Symphony (with a divertimento overside), and a collection of lighter fare called Beecham Lollipops; Von Karajan the Mussorgsky-Ravel Pictures, Brahms Second, and a Wagner miscellany; Markevitch the Tchaikovsky Fourth, a Bartók coupling (Dance Suize and Piano Concerto No. 3, with Annie Fischer), and his own transcription of Bach's Musical Offering. Emil Gilels is soloist in a new Emperor and José Iturbi is both soloist and conductor in the Tchaikovsky Concerto. Finally, there will be two long-playing discs conducted by the late Guido Cantelli.

AUDIO FIDELITY: More "studies in high fidelity sound" on the way, including Railroad Sounds — Steam and Diesel, Port Said — Music of the Middle East, and American Military Marches. There's also to be another volume of organ music, this one played by Leon Berry on Chicago's Hub Rink Wurlitzer.

CAPITOL: Each month's release will include a new Stokowski "package," among them The Planets by Gustav Holst and a collection called Landmarks of a Great Career (Finlandia, Clair de lune, the Toccata and Fugue in D minor, and other chestnuts long identified with this conductor). Coming up, but probably not until 1958, are Stokowski recordings with the Philharmonia and Berlin Philharmonic Orchestras (including, with the latter, a Fire Bird-Pétrouchka coupling). An album of Latin-American folk songs by the Roger Wagner Chorale will be ready this fall, as also a recital of French music by the harpist Marcel Grandjany.

COLUMBIA: As intimated here last month, Columbia will be entering the stereo-tape market this fall. Among the initial releases: the Symphonie fantastique (Mitropoulos), Peter and the Wolf (Ormandy-Cyril Ritchard), and the Fire Bird Suite (Bernstein). On microgroove Columbia will have two important first recordings: Stravinsky's Persephone, conducted by the composer, and Schoenberg's opera Moses und Aron, conducted by Hans Rosbaud. The complete piano music of Schoenberg is also scheduled, as performed by Schoenberg's long-time disciple Edward Steuermann.

Handel's Messiah, conducted by Leonard Bernstein, will be out soon, as will a number of concerto recordings: the Beethoven Piano Concerto No. 2 and the Bach D minor (Glenn Gould-Bernstein), Mozart's Piano Concertos in E flat and A (Rudolf Serkin-Schneider), and Wieniawski's Concerto for Violin, in D minor (Isaac Stern-Ormandy).

DECCA: Deutsche Grammophon, Decca's source of supply for the preponderance of its classical catalogue, has signed up the conductor Karl Böhm for a large schedule of recordings. Two will be released here this fall: the Beethoven Fifth and Brahms Second, both with the Berlin Philharmonic. Wilhelm Kempff, who previously recorded only Beethoven for DGG, will be represented by the Brahms Piano Concerto No. 1 and a Schumann pairing, Etudes symphoniques and Kreisleriana. Although it's not yet definitely scheduled, DGG's complete Fidelio (with Leonie Rysanek, Irmgard Seefried, and Ernst Haefliger, conducted by Ferenc Fricsay) very possibly will be in the shops before Christmas.

EPIC: From Van Beinum and the Concertgebouw Orchestra, a Bruckner Ninth, Brahms Third, and Mendelssohn Fourth. A first recording of Mozart's Missa Brevis in B flat, K. 275, is promised, coupled with the Coronation Mass, K. 317; Rudolf Moralt conducts the Vienna Choir Boys and Vienna Symphony in these.

HARMONY: A new low-priced (\$1.98) label sponsored by Columbia. Records will be sealed in polyethylene sleeves and sold primarily through supermarkets. Typical items from the first release are Ole! Flamenco, recorded in Spain, and Toujours Paris, recorded (naturally) in Mexico. Initial classical repertoire has been restricted to material previously issued on the now defunct Entré label.

LONDON: Devotees of Strauss and Flagstad should have no complaints this fall. The former are promised the long-awaited Fran obne Schatten and Arabella, both recorded in Vienna and both complete. The latter can hear the indomitable soprano in Alcesse, the third act of Walkiire (with Otto Edelmann in the role of Wotan), Mahler's Kindersosenlieder and Lieder eines fabrenden Gesellen, and a collection of Christmas music. Ernest Ansermet and the Suisse Romande Orchestra provide a complete Coppélia, Stravinsky's Sacre du Printemps, Bartók's Music for Strings, Percussion, and Celesta, Frank Martin's Violin Concerto (with Wolfgang Schneiderhan), Debussy's Printemps and Boite à joujoux, and a miscellany of little-played Rimsky pieces. Ataulfo Argenta takes over the Swiss orchestra for Debussy's Images. The Israel Philharmonic, under Georg Solti's direction, makes its debut on the London label with La Boutique fanlasque.

Tebaldi? Cerquetti? Del Monaco? Siepi? Doubtless there will be some Italian opera forthcoming before the end of the year. La Gioconda and Andrea Chénier were taped this summer.

MERCURY: Antal Dorari seems to have been working overtime. With his own Minneapolis Symphony he will be heard in recordings of the Bartók Violin Concerto (with Yehudi Menuhin), the Albéniz-Arbós Iberia, a collection of Rossini overtures, and in two ballet scores — Gaité Parisienne and Graduation Ball; with the London

Continued on page 61



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HIGH FIDELITY MAGAZINE

Symphony in Mendelssohn's Symphony No. 3. The Paul Paray-Detroit Symphony combination will be represented by Rachmaninoff's Second Symphony, Schumann's Third, Haydn's No. 96 (Miracle), and Mozart's No. 35 (Halfner). From up Rochester way comes a Gershwin coupling, the Concerto in F and Rhapsody in Blue (with Eugene List as soloist and Howard Hanson conducting) and a contemporary group from Frederick Fennell's Eastman Symphonic Wind Ensemble.

OVERTONE: Two LPs of Bach and Mozart organ music performed by the veteran Marcel Dupré have been scheduled. The recordings were made, by Disques Lumen, at Saint-Sulpice in Paris.

RCA CAMDEN: The Art of Sergei Rachmaninoff couples two of that master's great recorded performances, Chopin's B flat minor Sonata and Schumann's Carnaval. Other Art of ... Camdens will be devoted to the soprano Rosa Ponselle (a two-LP album) and the pianist Moriz Rosenthal. A collection of lieder sung by Lotte Lehmann is en route, also another Toscanini-New York Philharmonic record (Haydn's Clock Symphony and Wagner's Rbine Journey). Excerpts from Rossini's Barbiere (with Hilde Reggiani and Bruno Landi) round off Camden's fall schedule.

RCA VICTOR: Concertos are busting out all over. The five Beethoven piano concertos, played by Artur Rubinstein and the Symphony of the Air under Josef Krips's direction, will be issued both singly and in a complete package. Jascha Heifetz has made a new Tchaikovsky Concerto (Chicago-Reiner), and with the violist William Primrose has recorded Mozart's Sinfonia concertante in E flat and Arthur Benjamin's Romantic Fantasy. Byron Janis will be heard in Rachmaninoff's Piano Concerto No. 1 (Chicago-Reiner) and Gary Graffman in Prokofiev's No. 3 (San Francisco-Jorda). Munch and the Bostonians will pay their respects to The Sea (Debussy and Ibert), Reiner and the Chicagoans to Vienna (Strauss waltzes). From Boston we can expect also the Franck Symphony, Berlioz' L'Enfance du Christ, and a Wagner program; from Chicago, Strauss's Sinfonia domestica.

From European sources RCA plans to release a *Fire Bird-Pétrouchka* coupling, Monteux conducting the Paris

SEPTEMBER 1957

Conservatoire Orchestra; Prokofiev's Cinderella, Hugo Rignold conducting the Covent Garden Orchestra; a debut record by the young Polish pianist André Tchaikowsky, comprising Ravel's Gaspard de la nuit and Prokofiev's Visions fugitives; and a Hamlet (Shakespeare's, forsooth) by the Old Vic Company with John Gielgud as the great Dane.

For the highbrow, RCA provides chamber music by the Festival and Juilliard Quartets; for the lowbrow, a concoction by Robert Russell Bennett bearing the cumbersome title Classical Music for People Wbo Don't Know Anything About Classical Music. For opera lovers, the only thing so far scheduled is the Rigoletto recorded in Rome last year (Peters, Bjoerling, Merrill, Tozzi). But undoubtedly one or more of the half dozen operas taped in Italy this past summer will be along before Christmas.

RIVERSIDE: In addition to its customary jazz and folk-music releases, Riverside plans to enrich the spokenword field with *Alice in Wonderland*, read in its entirety by Cyril Ritchard and accompanied by incidental music by Alec Wilder. The four-LP album will include a facsimile of the first edition of *Alice*.

UNICORN: André Marchal, the blind French organist, is featured in three recordings made at M.I.T.; Bach and the eighteenth-century French school predominate. Roger Voisin, trumpeter with the Boston Symphony, and a string orchestra are responsible for a record of trumpet concertos and voluntaries; and there are to be two more Beethoven piano sonatas played by Ernst Levy, Opus 90 and 101.

URANIA: We are reminded by this company that Dietrich Buxtehude died 250 years ago. A Buxtehude anniversary program of two cantatas, a Mass, and a Magnificat, performed by the Cantata Singers of New York with Helen Boarwright and Russell Oberlin among the soloists, will be issued this fall, both on LP and stereo tape. Two albums of ballet music played by the Paris Opéra Orchestra under the direction of George Sebastian are also announced.

VANGUARD: There's a Purcell anniversay on the way too, the three hundredth of his birth, but whether in 1958 or 1959 remains a debatable point. "It was a little thoughtless of Purcell," says Vanguard's Maynard Solonion, "to leave a date so important for record companies so obscure." Undaunted, Vanguard intends to issue this fall a two-disc anthology of large works by Purcell performed by Alfred Deller and his Consort. The same musicians have addressed themselves to madrigals by Morley, Wilbye, and Monteverdi (the Madrigali guerrieri e amorosi).

There's no Vivaldi anniversary, but plenty of Vivaldi just the same: Le quattro Stagioni, played by the Solisti di Zagreb with the violinist Jan Tomasow, and L'Estro Armonico complete, with Mario Rossi in charge. Felix Prohaska conducts the Bach Magnificat and Cantata No. 50, and Sir Adrian Boult begins a complete Beethoven series for Vanguard with the Third, Fifth, Sixth, and Seventh Symphonies.

VOX: Early Italian string music has long been associated with this label. Forthcoming soon are albums devoted to Tartini's Concertos (6) for Violin and Orchestra, Op. 2, and to Corelli's Trio Sonatas, Op. 1 and 2. Jascha Horenstein conducts a Schoenberg pairing (Verklärte Nacht and the Chamber Symphony, Op. 9) and a Stravinsky (Le Sacre and Fire Bird). And the cellist Gaspar Cassadò will be heard as soloist in Schumann's Cello Concerto and his own arrangement for cello and orchestra of Schubert's Arpeggione Sonata.

WESTMINSTER: Two French companies, Erato and Vega, provide a large number of fall items, among them: Poulenc's Stabat Mater and Le Bal masqué, Joliver's Concerto for Ondes Martenot (a keyboard electronic tone generator), Messiaen's Vingt regards sur l'Enfant-Jésus, Francaix' Le Diable boitenx, Milhaud's Les Mulbeurs d'Orphée and Le Pauvre Matelot, Bartók's six quartets (performed by the Parrenin Quarter), and sacred works by Jean Gilles, De Lalande, and Schiitz. Also scheduled are the complete N#1cracker ballet, conducted by Rodzin-ski, and a coupling of Prokofiev's Peter and the Wolf (Rodzinski) and Saint-Saëns' Carnival of the Animals (Scherchen). The later works feature Garry Moore as narrator and "the sounds of all the animals which appear in the score." These noises, taken down by Westminster engineers at the Bronx Zoo, will be interpolated in the record, wherefore we know not.

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RECORDS

539 West 25 St. New York T. N. Y. to Italy, and may be considered a sort of study for his symphony Harold in Italy. For this reason, then, W-LAB 7051 is worth adding to a representative Berlioz library; the other two discs may be passed by in favor of more felicitous and less expensive versions by Wolff (London) or Beecham (Columbia). P.A.

RRAHMS: Schickenlelind_ Ob SA: Aca-

Elman are also represented by versions of the Mendelssohn concerto. Now Ricci; and his performance of the Bruch stands up well in the distinguished company in which it finds itself. It has dignity of conception, an appropriate romantic flow, a glowing ronal characteristic, and an easy command of the mechanics involved. Ricci's Mendelssohn is also excellently done, though here one is comizant of a of the very best. This disc replaces the excellent version that Kubelik made some years ago with the Chicago Symphony for Mercury. He had a way with the score then, and his conception has become even more refined. One of the unusual things about his interpretation is the very careful attention he pays to details, especially dynamic details. The planissimo sections in the last movement are really planissimo;



Flagstad: unflagging mastery in Grieg. Jorsalfar); Pro Musica Symphony (Vien-

na), Eduard van Remoortel, cond. VOX PL 10330. 12-in. \$4.98.

Some but not all of the promise that the young Belgian conductor Eduard van Remoortel revealed in his debut disc, also devoted to Grieg, is fulfilled in the present release. Where his musicianship counts most - that is, in Grieg's most ambitious, putely orchestral work, the Symphonic Dances — he gives an interpretation both discerning and finely wrought, though lacking some of the expansiveness and relaxed lyricism that made Erik Tuxen's idiomatic performance for Mercury so outstanding. He also does well by the Two Elegiac Melodies, which he treats with appropriate solemnity. Where he disappoints is in the Sigurd Jorsalfar Suite. What is probably an honest attempt to divest this music of some of its pomposity gives it instead some welcome lightness but unwelcome speed. P.A.

GRIEG: Song Recital

Kirsten Flagstad, soprano; Edwin Mc-Arthur, piano.

LONDON LL 1547. 12-in. \$3.98.

About a quarter of a century ago, Kirsten Flagstad recorded a number of these simple but exultantly beautiful Grieg songs for RCA Victor. Hearing them, most in Norwegian, sung with that gloriously rich, powerful, yet velvety Flagstad tone was a thrill never to be forgotten. The absence of these discs from the catalogue in recent years has left a real void which could be filled by no one else. We owe a debt of gratitude to London, then, for wooing this artist back into the recording studio to remake such favorites as Jeg elsker Dig ("I Love Thee"), Deer gynger en Baad paa Bølge ("A Boat Is Rocking on the Waves"), and En Drom ("A Dream"), together with some less familiar but no less admirable little art songs by the Norwegian master miniaturist. What is most pleasant to report is that Mme. Flagstad is still more than equal to the demands of these songs. delivering them with the same freshness and interpretative artistry she displayed two decades ago. P.A.

HAYDN: Concerto for Clavier and Orchestra, in D, Op. 37 †Bach: Concerto for Clavier and Or-

chestra, in D minor, S. 1052

Sylvia Marlowe, harpsichord; Concert Atts Chamber Orchestra. CAPITOL P 8375, 12-in. \$3.98.

Miss Marlowe is also the conductor in these performances, but no allowances need to be made on that account. There is no raggedness in the ensemble, and the balances are excellent. So are the solo performances. That of the Haydn resembles Landowska's, not only in its main outlines but also in some details; there is no better model. The Bach takes its place as one of the best, a peer of the Reinhardt (London) and Viderø (Haydn Society). The recorded sound is first-rate. N.B.

HOVHANESS: Anabid, Op. 57; Allelnia and Fugue, Op. 40b; Tower Music, Op. 129

M-G-M Orchestra, Carlos Surinach, cond. M-G-M E 3504. 12-in. \$3.98.

Alan Hovhaness is, of course, best known for his numerous pieces on Armenian subjects. like the Anabid of the present collection; but according to Edward Cole's jacket notes, his Armenian period lasted only from 1943 to 1950, and the works here presented along with Anabid are both earlier and later. Both are decidedly better pieces than the Armenian fantasy. The Alleluia and Fugue, written in 1942, is a piece for string orchestra inspired by medieval polyphony. It is full of long melismatic lines, rich modal harmony, and deeply colored resonances, and is one of the most moving things of that type with which I am acquainted; it is like a shorter, more compact version of Vaughan Wil-liams' Fantasia on a sheme by Thomas Tallis. The Tower Music is a set of short pieces for wind instruments - music of great solemnity and dignity recalling the brass canzonas of a Giovanni Gabriell rather more than the work of those seventeenth-century Germans with whom one normally associates the phrase "tower music.

Anahid was the mother-goddess of pagan Armenia. Hovhaness' tone poem (for orchestra) recalls the ceremonies held in her honor, with slow processional music, a pastorale, and lively dances. It is all very picturesque and full of canonical complexities, but it is all a little obvions too.

The recording is gorgeous, and the performacces — at least of the Allelnia and Fugue and the Tower Music — leave nothing to be desired. There is a chance that the less impressive showing of Anabid is the conductor's fault, but somehow I doubt it. A.F.

LISZT: Psalm XIII, for Tenor Solo, Chorns, and Orchestra +Brahms: Schicksalslied, Op. 54; Aca-

demic Festival Overture, Op. 80

Walter Midgley, tenor; Beecham Choral Society; Royal Philharmonic Orchestra, Sir Thomas Beecham, cond.

ANGEL 35400. 12-in. \$4.98 (or \$3.48).

As far as I can determine, there has been no previous recording of the Liszt choral work, and there have been precious iew of the Brahms Song of Destiny, here sung in English. Bruno Walter has interested himself in the Brahms, but performances are scarce, while I doubt if New York has had a performance of the Liszt during the last generation. At scattered moments in the Psalm XIII there is a momentary upheaval from chorus and orchestra suggesting the drama of the Faust Symphony, but for the most part the writing is conventional and even has two Bachian fugues (and skillfully written fugues they are). Other moments suggest Wagner, particularly Tristan, but then we remember that this work was composed earlier. Perhaps the best thing about Psalm XIII, aside from the professionalism of the writing, is the fine tenor solo, accompanied by chorus, that begins at the Andanse mosso section of the score ("Look on me and answer me"). Midgley is a typical English oratorio singer, with a clear, rather white voice that is a trifle short on top, and with wonderful enunciation. Beecham conducts calmly, presenting a good performance but one that could have taken a little more advantage of those few moments where Liszt generated some excitement, especially in the Allegro agitato.

The sound of English vowels as against German ones handicaps Brahms's Song of Destiny, and the chotus has mushy enunciation in any case. But the score itself is a powerful and somber one, without the profile of the Alto Rhapsody but with a closing section reminiscent of the first movement of the C minor Symphony, and Beecham's conducting here manages to bring out the brooding elements of the score in a subtle manner. The Brahms side is filled out with a properly rousing performance of the popular Academic Festival Overture. Brilliant recorded sound in all three works. H.C.S.

MENDELSSOHN: Concerto for Violin and Orchestra, in E minor, Op. 64-See Bruch: Concerto for Violin and Orchestra, in G minor, Op. 26.

MENDELSSOHN: Octet in E flat, Op. 20

[†]Tchaikovsky: Serenade for Strings, in C, Op. 48

Fine Arts Quarter, augmented (in the Octer); Sorkin Chamber Orchestra, Leonard Sorkin, cond. (in the Serenade). VANGUARD VRS 1003. 12-in. \$4.98.

The Octet is very far from Mendelssohn's greatest chamber work - that distinction probably belongs to the D major String Quarter - but it is a magical score for all that, except for a rather disappointing slow movement. Its rare instrumental combination, probably influenced by the double string quartets of Ludwig Spohr, demands eight very light-fingered soloists if the music is not to become thick and sluggish. Somehow Toscanini gor a whole orchestra of strings to be as light as a will-o'-thewisp, but I never could deceive myself that this was the way the Octet was meant to sound. Mendelssohn was writing with the timbres of single stringed instruments in mind, and only a performance such as rhe Fine Arts Quartet and their four colleagues give can indicate what those timbres were. The performance is a good one, although one could wish as much care had been lavished on the first, second,

Continued on page 73

Symphony in Mendelssohn's Symphony No. 3. The Paul Paray-Detroit Symphony combination will be represented by Rachmaninoff's Second Symphony, Schumann's Third, Haydn's No. 96 (Miracle), and Mozart's No. 35 (Haffner). From up Rochester way comes a Gershwin coupling, the Concerto in F and Rhapsody in Blue (with Eugene List as soloist and Howard Hanson conducting) and a contemporary group from Frederick Fennell's Eastman Symphonic Wind Ensemble.

OVERTONE: Two LPs of Bach and Mozart organ music performed by the veteran Marcel Dupré have been scheduled. The recordings were made, by Disques Lumen, at Saint-Sulpice in Paris.

RCA CAMDEN: The Art of Sergei Rachmaninoff couples two of that master's great recorded performances, Chopin's B flat minor Sonata and Schumann's Carnaval. Other Art of ... Camdens will be devoted to the soprano Rosa Ponselle (a two-LP album) and the pianist Moriz Rosenthal. A collection of lieder sung by Lotte Lehmann is en route, also another Toscanini-New York Philharmonic record (Haydn's Clock Symphony and Wagner's Rhine Journey). Excerpts from Rossini's Barbiere (with Hilde Reggiani and Bruno Landi) round off Camden's fall schedule.

RCA VICTOR: Concertos are busting out all over. The five Beethoven piano concertos, played by Artur Rubinstein and the Symphony of the Air under Josef Krips's direction, will be issued both singly and in a complete package. Jascha Heifetz has made a new Tchaikovsky Concerto (Chicago-Reiner), and with the violist William Primrose has recorded Mozart's Sinfonia concertante in E flat and Arthur Benjamin's Romantic Fantasy. Byron Janis will be heard in Rachmaninoff's Piano Concerto No. 1 (Chicago-Reiner) and Gary Graffman in Prokofiev's No. 3 (San Francisco-Jorda). Munch and the Bostonians will pay their respects to The Sea (Debussy and Ibert), Reiner and the Chicagoans to Vienna (Strauss waltzes). From Boston we can expect also the Franck Symphony, Berlioz' L'Enfance du Christ, and a Wagner program; from Chicago, Strauss's Sinfonia domestica.

From European sources RCA plans to release a *Fire Bird-Pétrouchka* coupling, Monteux conducting the Paris Conservatoire Orchestra; Prokofiev's *Cinderella*, Hugo Rignold conducting the Covent Garden Orchestra; a debut record by the young Polish pianist André Tchaikowsky, comprising Ravel's *Gaspard de la nuit* and Prokofiev's *Visions fugitives*; and a *Hamlet* (Shakespeare's, forsooth) by the Old Vic Company with John Gielgud as the great Dane.

For the highbrow, RCA provides chamber music by the Festival and Juilliard Quartets; for the lowbrow, a concoction by Robert Russell Bennett bearing the cumbersome title Classical Music for People W bo Don't Know Anything About Classical Music. For opera lovers, the only thing so far scheduled is the Rigoletto recorded in Rome last year (Peters, Bjoerling, Merrill, Tozzi). But undoubtedly one or more of the half dozen operas taped in Italy this past summet will be along before Christmas.

RIVERSIDE: In addition to its customary jazz and folk-music releases, Riverside plans to enrich the spokenword field with Alice in Wonderland, read in its entirety by Cyril Ritchard and accompanied by incidental music by Alec Wilder. The four-LP album will include a facsimile of the first edition of Alice.

UNICORN: André Marchal, the blind French organist, is featured in three recordings made at M.I.T.; Bach and the eighteenth-century French school predominate. Roger Voisin, trumpeter with the Boston Symphony, and a string orchestra are responsible for a record of trumpet concertos and voluntaries; and there are to be two more Beethoven piano sonatas played by Ernst Levy, Opus 90 and 101.

URANIA: We are reminded by this company that Dietrich Buxtehude died 250 years ago. A Buxtehude anniversary program of two cantatas, a Mass, and a Magnificat, performed by the Cantata Singers of New York with Helen Boarwright and Russell Oberlin among the soloists, will be issued this fall, both on LP and stereo tape. Two albums of ballet music played by the Paris Opéra Orchestra under the direction of George Sebastian are also announced.

VANGUARD: There's a Purcell anniversay on the way too, the three hundredth of his birth, but whether in 1958 or 1959 remains a debatable point. "It was a little thoughtless of Purcell," says Vanguard's Maynard Solomon, "to leave a date so important for record companies so obscure." Undaunted, Vanguard intends to issue this fall a two-disc anthology of large works by Purcell performed by Alfred Deller and his Consort. The same musicians have addressed themselves to madrigals by Morley, Wilbye, and Monteverdi (the Madrigali guerrieri e amorosi).

There's no Vivaldi anniversary, but plenty of Vivaldi just the same: Le quattro Stagioni, played by the Solisti di Zagreb with the violinist Jan Tomasow, and L'Estro Armonico complete, with Mario Rossi in charge. Felix Prohaska conducts the Bach Magnificat and Cantata No. 50, and Sir Adrian Boult begins a complete Beethoven series for Vanguard with the Third, Fifth, Sixth, and Seventh Symphonies.

VOX: Early Italian string music has long been associated with this label. Forthcoming soon are albums devoted to Tartini's Concertos (6) for Violin and Orchestra, Op. 2, and to Corelli's Trio Sonatas, Op. 1 and 2. Jascha Horenstein conducts a Schoenberg pairing (Verklärte Nacht and the Chamber Symphony, Op. 9) and a Stravinsky (Le Sacre and Fire Bird). And the cellist Gaspar Cassadò will be heard as soloist in Schumann's Cello Concerto and his own arrangement for cello and orchestra of Schubert's Arpeggione Sonata.

WESTMINSTER: Two French companies, Erato and Vega, provide a large number of fall items, among them: Poulenc's Stabut Mater and Le Bal masqué, Joliver's Concerto for Ondes Martenot (a keyboard electronic tone generator), Messiaen's Vingt regards sur l'Enfant-Jésus, Francaix' Le Diable boiteux, Milhaud's Les Malbeurs d'Orphée and Le Panvre Matelot, Bartók's six quartets (performed by the Parrenin Quarter), and sacred works by Jean Gilles, De Lalande, and Schütz. Also scheduled are the complete Nutcracker ballet, conducted by Rodzinski, and a coupling of Prokofiev's Peter and the Wolf (Rodzinski) and Saint-Saëns' Carnival of the Animals (Scherchen). The later works feature Garry Moore as narrator and "the sounds of all the animals which appear in the score." These noises, taken down by Westminster engineers at the Bronx Zoo, will be interpolated in the record, wherefore we know not.



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HIGH FIDELITY MAGAZINE

BACH CLAVIER CONCERTOS

Records in Review

Reviewed by PAUL AFFELDER ALFRED FRANKENSTEIN PHILIP C. GERACI DAVID JOHNSON ROBERT CHARLES MARSH MAX DE SCHAUENSEE MURRAY SCHUMACH NATHAN BRODER RAY ERICSON JOAN GRIFFITHS ROY H. HOOPES, JR. EDWARD L. RANDAL HAROLD C. SCHONBERG CARL MICHAEL STEINBERG JOHN S. WILSON

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CL	ASS	ICAL

BACH: Concerto for Clavier and Orchestra, in D minor, S. 1052 — See Haydn: Concerto for Clavier and Orchestra, in D, Op. 37.

BACH: English Suites (6), S. 806-811

Ralph Kirkpatrick, harpsichord. ARCHIVE 3068/70. Three 12-in. \$5.98 each.

The English Suites are not as often played as the shorter and lighter French Suites, yet they offer much that repays repeated listening. Like the other set, this one contains some charming dances, such as the lighthearted bourree of No. 1, the lovely gavotte of No. 3, the delightful minuet of No. 4, or the playful passepied of No. 5. But unlike that set, this one has some long and elaborate preludes, and some movements, such as the sarabands of Nos. 2 and 3, that clothe the rhythmic skeleton of the old dances with music of tragic power. Kirkpatrick conveys all the different qualities of the music with mastery of the idiom and of the instrument. His fast tempos are lively but not hurried; his slow ones do not drag. His embellishments always sound natural and in good taste. I have imagined the second bourree of No. 2 as a more lyric piece than Kirkpatrick makes of it here, but perhaps that is a result of learning it on the piano. In any case, it is one of the fascinations of this music that it lends itself to more than one approach. The recording, done at Munich in the spring of 1956, is first-N.B. class.

BEETHOVEN: Sonatas for Piano: No. 8, in C minor, Op. 13 ("Pathétique"); No. 14, in C sharp minor, Op. 27, No. 2 ("Moonlight"); No. 23, in F minor, Op. 57 ("Appassionata")

Raymond Lewenthal, piano.

WESTMINSTER XWN 18400. 12-in. \$3.98.

For the same price as this one can get the same three sonatas played by Egon Petri on Westminster XWN 18255 or Rudolf Serkin on Columbia ML 5164. When steak and knackwurst cost the same, the customer has free choice, and in this kind of competition the decision does not go to Mr. Lewenthal. He is a skilled technician but shows little sensitivity for the shaping of a phrase, the building of a crescendo, or the other talents that make for great Beethoven. The recorded sound of his instrument is exceptionally good, however.

R.C.M.

BEETHOVEN: Sonatas for Violin and Piano: No. 1, in D, Op. 12, No. 1; No. 3, in E flat, Op. 12, No. 3

Leonid Kogan, violin; Gregory Ginsburg; piano.

VANGUARD VRS 6029. 12-in. \$4.98.

Beethoven called these "sonatas for pianoforte with a violin," but the traditional manner of performance makes them works for violin with a piano in the background. The present edition does not escape this fault, although it is not as conspicuous as one finds it elsewhere.

Kogan is a fine violinist, lacking the showy vittuosity which many find impressive, but revealing an admirable technique, well governed by notable musicianship. Ginsburg is a sensitive and, one would surmise, congenial co-worker. Add to this, fine recording, and one has welcome statements of two of Beethoven's most radiantly youthful works, preferable for me to any of the rival versions in the catalogue. R.C.M.

BERLIOZ: Overtures: Le Carnaval romain, Op. 9; Le Corsaire, Op. 21; Roh Roy

Overtures: Les Francs-Juges, Op. 3; Le Roi Lear, Op. 4

Overtures: Béatrice et Bénédict; Waverley, Op. 2 his; Benvenuto Cellini, Op. 23

Philharmonic Promenade Orchestra, Sit Adrian Boult, cond.

WESTMINSTER W-LAB 7051, 7053/4. Three 12-in. \$7.50 each.

This expensive series offers primarily quality of sound, often at the sacrifice of quantity of music per side; but in the present instance, with one exception, nearly everything is sacrificed. The sound is quite clean and free of distortion, but the studio in which the recordings were made is almost entirely without reverberation. The resulting lifelessness is not relieved by Boult's correct but routine tun-through of seven of these eight potentially colotful overtures and the reasonably precise, but frequently unpolished and unexciting orchestral performances.

The one exception is the Rob Roy overture, here given its first disc representation and invested by the conductor with more interest than the other pieces. This seldomheard work, originally intended for a projected stage version of Scott's Rob Roy, makes use of the traditional Scottish tune Scots Wba Hae Wi' Wallace Bled. But it was sketched during Berlioz's first trip to Italy, and may be considered a sort of study for his symphony Harold in Italy. For this reason, then, W-LAB 7051 is worth adding to a representative Berlioz library; the other two discs may be passed by in favor of more felicitous and less expensive versions by Wolff (London) or Beecham (Columbia). P.A.

BRAHMS: Schicksalslied, Op. 54; Academic Festival Overture, Op. 80-See Liszt: Psalm XIII, for Tenor Solo, Chorus, and Orchestra.

BRAHMS: Symphony No. 1, in C minor, Op. 68

Vienna Philharmonic Orchestra, Josef Krips, cond.

LONDON LL 1608. 12-in: \$3.98.

Boston Symphony Orchestra, Charles Munch, cond. RCA VICTOR LM 2097. 12-in. \$3.98.

Versions Nos. 21 and 22, or thereabouts. The Vienna group offers a dignified, largescale performance midway between Toscanini's drive and Walter's Gemütlichkeit. Very satisfactory, with just a few reservations. For most of the symphony Krips holds a flowing line, but the first entry of the famous horn call in the last movement finds him dragging the tempo. He also, rather carelessly, lets the orchestra play triplet figurations in perfectly good four-four measures (bars 274 et seq. of the last movement), thus breaking up the meter. Admittedly this is a minor point, but it is none the less annoying. Otherwise a fine interpretation, and a gorgeously recorded one.

Munch and the BSO give a dependable account of the symphony — did the BSO ever play anything poorly? — but the interpretation cannot be called more than a good rourine effort; it lacks a really animating point of view. Munch's change of tempos in the last movement, in an attempt to underline the lyric sections, is disconcerting, to say the least. H.C.S.

BRITTEN: Matinées Musicales; Soirées Musicales

Philharmonic Promenade Orchestra, Sir Adrian Boult, cond. WESTMINSTER W-LAB 7055. 12-in. \$7.50.

Each of these pieces is a light ballet score in five movements based on themes by Rossini. Britten does this sort of thing to perfection, the performance is the last word in orchestral elegance, and the recording is as glossy as a Whitehall guardsman's horse.

BRUCH: Concerto for Violin and Orchestre, in G minor, Op. 26

[†]Mendelssohn: Concerto for Violin and Orchestra, in E minor, Op. 64

Ruggiero Ricci, violin; London Symphony Orchestra, Pierino Gamba, cond. LONDON LL 1684. 12-in. \$3.98.

Virtually every one of the world's great romantic violinists has recorded the Bruch G minor. What a list! Campoli, Elman, Francescatti, Heifetz, Menuhin, Milstein, Oistrakh, and Stero. All of them except

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Elman are also represented by versions of the Mendelssohn concerto. Now Ricci; and his performance of the Bruch stands up well in the distinguished company in which it finds itself. It has dignity of conception, an appropriate romantic flow, a glowing tonal characteristic, and an easy command of the mechanics involved. Ricci's Mendelssohn is also excellently done, though here one is cognizant of a coarser grain not found in the Heifetz, Milstein, or Oistrakh versions. Beautiful recorded sound on Ricci's disc. Gamba, by the way, scems to be developing into quire a conductor. H.C.S.

DVORAK: Symphony No. 2, in D minor, Op. 70

Vienna Philharmonic Orchestra, Rafael

Kubelik, cond. LONDON LL 1606. 12-in. \$3.98.

Rehearing all available microgroove interpretations of the Dvořák Second does nothing to alter my conviction that the London disc with Schmidt-Isserstedt and the Hamburg Radin Symphony is the best version, in spire of its inferior recorded sound. It sounds more idiomatic than the Leitner-Berlin Philharmonic performance recently issued by Decca, and it is smoother than the new Kubelik disc (Kubelik previously recorded the work, for Victor-HMV, but that version will be hatd to find). Kubelik never has had much success with the D minor Symphony. Where he is all directness and color in the New World, he becomes tight and fussy in the D minor. In addition he has not yet solved the problems of balancing the countermelodies of the third movement, and some of Dvořák's most inventive writing here H.C.S. sounds jumbled.

DVORAK: Symphony No. 5, in E minor, Op. 95 ("From the New World")

Vienna Philharmonic Orchestra, Rafael Kubelik, cond.

LONDON LL 1607. 12-in. \$3.98.

About the twentieth LP version, and one

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of the very best. This disc replaces the excellent version that Kubelik made some years ago with the Chicago Symphony for Mercury. He had a way with the score then, and his conception has become even more refined." One of the unusual things about his interpretation is the very careful attention he pays to details, especially dynamic details. The pianissimo sections in the last movement are really pianissimo; and how seldom one hears such delicate playing from a full-sized orchestra! All of the climaxes are resoundingly surmounted. The recorded sound is as good as anything to be heard on discs today. In short, a New World that anybody can happily endorse, ranking with the Tos-canini, Szell, and Rodzinski versions. H.C.S.

ELGAR: Falstaff: Symphonic Study in C minor, Op. 68

Philharmonic Promenade Orchestra, Sir Adrian Boult, cond.

WESTMINSTER W-LAB 7052. 12-in. \$7.50.

The Falstaff so magnificently portrayed by Elgar in this symphonic study is Shakespeare's rowdy, jocular, boastful companion to Prince Hal, who when he becomes King Henry V repudiates the Far Knight. Boult gives a superb account of the score, bringing out all of its humor, drama, nobility, and pathos. This is, in fact, just about the best of his recorded Elgar performances, and Westminster has invested it with almost three-dimensional sound. P.A.

FALLA: El sombrero de tres picos: Suite No. 2; La vida breve: Interlude and Dance: Noches en los jardines de España

Robert Casadesus, piano (in Noches); New York Philharmonic-Symphony Orchestra, Dimitri Mitropoulos, cond. COLUMBIA ML 5172. 12-in. \$3.98.

Mitropoulos' performances are disturbingly uneven. The extracts from La vida breve are very well played, and the celebrated dance gains much by being prefaced by the pages that Falla intended to precede it. This is the best edition of the work, apart from that in the RCA-HMV recording of the complete opera.

Both the other scores suffer, however, from overly heavy accents, retardations alien to the style, and like exaggerations and underlinings. The merits of the competing editions of Nights in the Gardens of Spain, particularly the Novaes, are not challenged by this. Casadesus' triple see approach to the solo part suggests the outlook of the tourist rather than any identification with the landscape and the people. R.C.M.

GRIEG: Sigurd Jorsalfar: Suite, Op. 56; Two Elegiac Melodies, Op. 34; Four Symphonic Dances, Op. 64

Bamberg Symphony Orchestra (in Sigurd

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HIGH FIDELITY MAGAZINE

ELGAR: Introduction and Allegro for Strings, Op. 47 — See Tchaikovsky: Serenade for Strings, in C, Op. 48.





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Flagstad: unflagging mastery in Grieg.

Jorsalfar); Pro Musica Symphony (Vienna), Eduard van Remoortel, cond. VOX PL 10330. 12-in. \$4.98.

Some but not all of the promise that the young Belgian conductor Eduard van Remoortel revealed in his debut disc, also devoted to Grieg, is fulfilled in the present release. Where his musicianship counts most - that is, in Grieg's most ambitious, purely orchestral work, the Symphonic Dances - he gives an interpretation both discerning and finely wrought, though lacking some of the expansiveness and relaxed lyricism that made Erik Tuxen's idiomatic performance for Mercury so outstanding. He also does well by the Two Elegiac Melodies, which he treats with appropriate solemnity. Where he disappoints is in the Sigurd Jorsalfar Suite. What is probably an honest attempt to divest this music of some of its pomposity gives it instead some welcome lightness but unwelcome speed. P.A.

GRIEG: Song Recital

Kirsten Flagstac, soprano; Edwin Mc-Arthur, piano.

LONDON LL 1547. 12-in. \$3.98.

Abour a quarter of a century ago, Kirsten Flagstad recorded a number of these simple but exultantly beautiful Grieg songs for RCA Victor. Hearing them, most in Norwegian, sung with that gloriously rich, powerful, yet velvery Flagstad tone was a thrill never to be forgotten. The absence of these discs from the catalogue in recent years has left a real void which could be filled by no one else. We owe a debt of gratitude to London, then, for wooing this artist back into the recording studio to remake such favorites as Jeg elsker Dig ("I Love Thee"), Deer gynger en Baad paa Bølge ("A Boat Is Rocking on the Waves"), and En Drom ("A Dream"), rogether with some less familiar but no less admirable little art songs by the Norwegian master miniaturist. What is most pleasant to report is that Mme. Flagstad is still more than equal to the demands of these songs, delivering them with the same freshness and interpretative artistry she displayed two decades ago. P.A.

HAYDN: Concerto for Clavier and Orchestra, in D, Op. 37

+Bach: Concerto for Clavier and Orchestra, in D minor, S. 1052

66

Sylvia Marlowe, harpsichord; Concert Arts Chamber Orchestra. CAPITOL P 8375. 12-in. \$3.98.

Miss Matlowe is also the conductor in these performances, but no allowances need to be inade on that account. There is no raggedness in the ensemble, and the balances are excellent. So are the solo per-formances. That of the Haydn resembles Landowska's, not only in its main outlines but also in some details; there is no better model. The Bach takes its place as one of the best, a peer of the Reinhardt (London) and Viderø (Haydn Society). The N.B. recorded sound is first-rate.

HOVHANESS: Anabid, Op. 57: Alleluia and Fugue, Op. 40b; Tower Music, Op. 129

M-G-M Orchestra, Carlos Surinach, cond. M-G-M E 3504. 12-in. \$3.98.

Alan Hovhaness is, of course, best known for his numerous pieces on Armenian subjects. like the Anabid of the present collection; but according to Edward Cole's jacket notes, his Armenian period lasted only from 1943 to 1950, and the works here presented along with Anabid are both earlier and later. Both are decidedly better pieces than the Armenian fantasy. The Alieluia and Fugue, written in 1942, is a piece for string orchestra inspired hy medieval polyphony. It is full of long melis-matic lines, rich modal harmony, and deeply colored resonances, and is one of the most moving things of that type with which I am acquainted; it is like a shorter, more compact version of Vaughan Williams' Fantasia on a theme by Thomas Tallis. The Tower Music is a set of short pieces for wind instruments - music of great solemnity and dignity recalling the brass canzonas of a Giovanni Gabrieli rather more than the work of those sevenreenth-century Germans with whom one normally associates the phrase "tower music.

Anahid was the mother-goddess of pagan Armenia. Hovhaness' tone poem (for orchestra) recalls the ceremonies held in het honor, with slow processional music, a pastorale, and lively dances. It is all very picturesque and full of canonical complexities, but it is all a little obvious too.

The recording is gorgeous, and the performances - at least of the Alleluia and Fugue and the Tower Music - leave nothing to be desired. There is a chance that the less impressive showing of Anabid is the conductor's fault, but somehow I A.F. doubt it.

LISZT: Psalm XIII, for Tenor Solo, Chorns, and Orchestra +Brahms: Schicksalslied, Op. 54; Aca-

demic Festival Overture, Op. 80

Walter Midgley, tenor; Beecham Choral Society; Royal Philharmonic Orchestra, Sir Thomas Beecham, cond.

ANGEL 35400. 12-in. \$4.98 (or \$3.48).

As far as I can determine, there has been no previous recording of the Liszt choral work, and there have been precious few of the Brahms Song of Destiny, here sung in English. Bruno Walter has interested himself in the Brahms, but performances are scarce, while I doubt if New York has had a performance of the Liszt during the last generation. At scattered moments in the Psalm XIII there is a momentary upheaval from chorus and orchestra suggesting the drama of the Faust Symphony, but for the most part the writing is conventional and even has two Bachian fugues (and skillfully written fugues they are). Other moments suggest Wagner, particularly Tristan, but then we temember that this work was composed earlier. Perhaps the best thing about Psalm XIII, aside from the professionalism of the writing, is the fine tenor solo, accompanied by chorus, that begins at the Andanie mosso section of the score ("Look on me and answer me"). Midgley is a typical English oratorio singer, with a clear, rather white voice that is a trifle short on top, and with wonderful enunciation. Beecham conducts calmly, presenting a good performance but one that could have taken a little more advantage of those few moments where Liszt geoerated some excitement, especially in the Allegro agilato.

The sound of English vowels as against German ones handicaps Brahms's Song of Destiny, and the chorus has mushy enunciation in any case. But the score itself is a powerful and somber one, without the profile of the Alto Rhapsody but with a closing section reminiscent of the first movement of the C minor Symphony, and Beecham's conducting here manages to bring out the brooding elements of the score in a subtle mannet. The Brahms side is filled out with a properly rousing performance of the popular Academic Festival Overture. Brilliant recorded sound in all H.C.S. three works.

MENDELSSOHN: Concerto for Violin and Orchestra, in E minor, Op. 64-See Bruch: Concerto for Violin and Orchestra, in G minor, Op. 26.

MENDELSSOHN: Octet in E flat, Ob. 20

+Tchaikovsky: Serenade for Strings, in C, Op. 48

Fine Arts Quarter, augmented (in the Octet); Sorkin Chamber Orchestra, Leonard Sorkin, cond. (in the Serenade). VANGUARD VRS 1003. 12-in. \$4.98.

The Octet is very far from Mendelssohn's greatest chamber work - that distinction probably belongs to the D major String Quartet - but it is a magical score for all that, except for a rather disappointing slow movement. Its rare instrumental combination, probably influenced by the double string quarters of Ludwig Spohr, demands eight very light-fingered soloists if the music is not to become thick and sluggish. Somehow Toscanini got a whole orchestra of strings to be as light as a will-o'-thewisp, but I never could deceive myself that this was the way the Octet was meant to sound. Mendelssohn was writing with the timbres of single stringed instruments in mind, and only a performance such as the Fine Arts Quartet and their four colleagues give can indicate what those timbres were. The performance is a good one, although one could wish as much care had been lavished on the first, second,

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and fourth movements as is given the scherzo, which emerges wonderfully tender and playful. Both cellos seem occasionally not up to the presto demands of the finale.

The Tchaikovsky Serenade is performed adequately but without much opulence of tone, and the bass is at times disagreeably obtrusive. It runs a poor second to the new Munch-Boston version on RCA Victor. D.J.

MENDELSSOHN: Sonata for Cello and Piano, in D, Op. 58

+Strauss, Richard: Sonata for Cello and Piano, in F, Op. 6

André Navarra, cello; Ernest Lush, piano. CAPTTOL P 18045. 12-in. \$3.98.

Considering the industry and good musicianship Navarra invariably brings to his playing, it is unfortunate that the tone he produces is so dry. It has a stringy quality, a lack of color, and a wailing note in the higher positions. The ultraromantic Strauss sonata, an early work patterned after the very best German masters, demands a tonal richness that Navarra cannot supply. He plays the Mendelssohn energetically enough. and he has a fine partner in Lush, but here again the lack of tonal suavity militates against complete enjoyment. Schuster and Wuchrer have given a better account of the Strauss sonata on a Vox disc, while for the Mendelssohn one turns to the Feuermann reissue on RCA Camden despite the aged recorded sound. HCS

MEYERBEER: Les Huguenois (abridged)

Renée Dotia (s), Marguerite of Valois; Jeanne Rinella (s). Valentine; Gilbert Glaziou (s). Lady-in-waiting; Simone Coudere (ms), Urbain; Guy Fouché (t), Raoul de Nangis; Vincent Mattinez (t), Tavannes; Pierte Sanchez (t), Cossé; Charles Cambon (b), Comte de Nevers; Gératd Bourtéli (b), Méru; Fortuné Moréna (b), De Retz; Adrien Legros (bs), Comte de Saint-Bris; Heuri Médus (bs), Marcel. Académie Chorale de Paris and Orchestre de l'Association des Concerts Pasdeloup (Paris), Jean Allain, cond. WESTMINSTER OPW 1204. Two 12-in. \$7.96.

" 'He will be a Meyerbeer, a Mozart, a ...' As no third name of equal significance occurred to her, she confined herself to showering kisses on her aephew." Thus Frau Permaneder upon hearing little Hanno Buddenbrook play the piano for the first time. In 1869, the year of the action, such a bracketing of Ms might not have seemed wholly far-fetched, but for Thomas Mann, writing this scene only thirty years later, the irony already was quite clear. In one generation, changing taste had begun to turn Meyerbeer from the most prosperous composer of his day into a joke. Today, though he is still cited in history books as the very embodiment of Grand Opera and is singled out as the butt of the musical anti-Semites from Wagner to Nazi musicologists, Meyerbeer has long been neglected in the theaters that made him celebrated and which he made wealthy. For us it is hard to understand how the



Monteverdi's Venus is best unvisualized.

works of a man perhaps best understood as the Cecil B. de Mille of his day should have been prized as monuments of intellectual and philosophical power by such persons as George Sand, Balzac, and Heine.

Les Huguenots, composed in 1836 to one of Augustin-Eugène Scribe's skillful librettos, is a vast five-act pageant about the Massacre of St. Bartholomew's Day. The subject not only is superbly theatrical, but also enables Meyerbeer to pose as historian and thinker. The music itself is executed with a scene painter's broad strokes, now brilliantly, now ineptly. The Overture is constructed on the first two phrases of A Mighty Fortress is Our God (Seigneur, rempart et seul soutien, as the Huguenots have it), and it is astonishing how clumsily Meyerbeer harmonizes the tune and how completely he misunderstands his material when he attempts to use the hymn phrases for a quasi-symphonic, quasicontrapuntal development later on. But when Meyerbeer operates within his range of comprehension, how well he can convince! The scene in which the swords of the Catholic soldiers are blessed for the slaughter calls vividly to mind the auto-dale in Don Carlo, and Meyerbeer's music is hardly less effective than Verdi's. The great duet that follows, even though it contains a few awkward harmonies that cause some inadvertently definite stops, is a thoroughly inspired piece of work. The climactic melody "Tn Pas dit" is magnificently expansive in its phrasing, and the scene as a whole leads up to one of the most thrilling curtain-falls in the entire literature.

The abilities of the performers on this greatly abridged recording, made by a French company named Pléiade, are of a very modest order. The men are on the whole acceptable. The best of them is the bass Legros, and the next best the leading tenor, who produces some fine-sounding Cs and D flats even though his approach to and descent from these heights is generally a scramble. The women all sing badly, and the more important the role, the worse the sound. If conductor and orchestra have any merits, they escape me. All told, I cannot help feeling that the album annotator was ill-advised in reminding us of the turn-of-the-century productions of Les Huguenots with Melba, Nordica, Scalchi, Jean and Edouard de Reszke, Plançon, and Maurel in the cast. Useful as it is to have some sort of recording of this opera, it is a pity it should be one that conveys no hint of the quality on which alone such music can live, namely its grandeur. C.M.S.

MOZART: Songs (18)

Rita Streich, soprano; Erik Werba, piano. Decca DL 9915. 12-in. \$3.98.

For the first couple of songs or so, I found myself simply basking in the loveliness of the voice - pure and true, rather light but steady, and possessing a warm, appealing quality. And it is superbly recorded. But then it began to seem as though all the songs were about the same thing. There was no perceptible difference in color whether the singer was dealing with the broad, hushed, moonlit opening of Abendempfindung or was representing the coy maiden of Die Zauberer. For best results, sample this disc a song or two at a time. Twelve of these songs, plus four others. are sung with a little - but only a little -more variety of feeling by Schwarzkopf on Angel 35270. N.B.

MONTEVERDI: Il Ballo dell' ingrate

Alfred Deller (countertenor), Venus; Eileen McLoughlin (soprano), Cupid; David Ward (baritone), Pluto; April Cantelo (soprano), One of the Heartless Ladies; Ambrosian Singers; London Chamber Players, Alfred Deller, dir.

VANGUARD BG 567. 12-in. \$4.98.

This Italian venture into the style of a French court ballet was first performed at Mantua in 1608 and published twenty years later. The narrative portions are sung in a kind of heightened recitative, which occasionally breaks out into music of intense feeling, as in the duet between Cupid and Venus, part of Pluto's solo (on Side 2), and the music for One of the Heartless Ladies at the end. The intensity of such passages is rather surprising, since the text of the work indicates that it was inteoded as a divertissement. How else is one to characterize a "plot" in which Cupid gets Venus to persuade Pluto to allow the shades of some Heartless Ladies to return from Hades temporarily so that the living ladies of the Mantuan court may see what terrible punishment is meted out in the other world to those who coldly spurn love when it is proferred? But Monteverdi had just finished Arianna (which is lost except for the famous Lament), and was perhaps still under the spell of the strong emotions it had evoked in him.

As with most music of this period, there are many problems of interpretation. Vanguard was fortunate to obtain the services of the learned and sensible Denis Stevens, who prepared the edition used here and wrote the notes. He has decorated some of the vocal music with curious ornaments taken from a treatise of the time, and has cleverly interpolated in the text, in the form of stage directions, a contemporary description of the first performance. The Vox version, edited by Roberto Lupi, almost sounds like a different work. There the approach is practically Verdian. It results in a performance that is supercharged, but some of the emotionalism of the Italian singers there would have done this English performance no barm. The soloists here are all able people but they sing as though they too were disembodied spirits, instead of lusty divinities.

In short, the edition used here is probably as close to historical accuracy as it could be, but its execution would have benefited by greater warmth in the vocal parts. The instrumental sections, on the other hand, especially the dances, are played with considerable vitality. N.B.

MOZART: Quartets for Strings: in E flat, K. 428; in B flat, K. 458 ("The Hunt")

Barcher Quartet.

VOX PL 9540. 12-in. \$4.98.

The Barchet group is a first-class quartet of a type, seemingly more prevalent in Central Europe than elsewhere, that features robust playing, excellent ensemble, and careful musicianship. Less attention is paid to beauty of tone and to the subtleties of musical rhetoric. Such are the general characteristics of the present performances. It is interesting, at first, not to be distracted from the musical content by sensuousness of tone; and the general style of the playing suits such movements as the two minuets perfectly. But elsewhere one begins to long for the elegance and nuance to which such ensembles as the Budapest Quartet have accustomed us. There are more dynamic gradations in this music than the piano-mezzo forte-forte that is all we get here. In the B flat Quartet the hushed wonder of the "second theme" of the Adagio is lacking, and the slow vibrato of the first violinist in other parts of the movement is hardly a compensation. N.B.

MOZART: Serenade No. 10, in B flat, K. 361

Members of the Berlin Philharmonic Orchestra, Fritz Lehmann, cond. DECCA DL 9918. 12-in. \$3.98.

The rich sounds of this delicious work, for rwelve wind instruments and a doublebass, come through beautifully on this fine recording. If the performance were on the same high level as the mechanical capturing of it, this would be a prize disc. In fact, the players do nothing wrong. Everybody is very careful and correct, but no one seems to be having a good time. It is only towards the end, in the Variations and the Turkish Rondo, that the boys begin to warm up. There is a little more fun and sentiment in the Steinberg-Los Angeles Woodwind performance on a Capitol disc. N.B.

MOZART: Symphonies: No. 33, in B flat, K. 319; No. 36, in C, K. 425 ("Linz")

Symphony Orchestra of the Bavarian Radio, Eugen Jochum, cond.

DECCA DL 9920. 12-in. \$3.98.

Neither performance is distinguished enough to overcome faults of the recording, such as distortion of the violin tone, thickness of the basses, and occasional overmodesty of the oboes. N.B.

MOZART: Sympbonies: No. 39, in E flat, K. 543; No. 40, in G minor, K. 550

Amsterdam, Concertgebouw Orchestra, Karl Böhm, cond.

EPIC LC 3357. 12-in. \$3.98.

I have not heard a better performance of the E flat Symphony on records. The close relationship of the slow introduction to the most serious parts of Don Giovanni, the dramatic character of the development sections in the first and last movements. and the mellow lyricism elsewhere - these qualities are conveyed more effectively by Böhm than by most conductors. Although the orchestra is a large one, the winds can be heard clearly enough. The violin tone is excellent, and the sound in general very resonant. The G minor Symphony is well done too, but not enough so as to displace the Toscanini version in my affections, inferior in sound though that version may be. N.B.

OFFENBACH: La Périchole (excerpts)

Patrice Munsel (s), La Périchole; Heidi Krall (s), Guadalena; Madelaine Chambers (s), Estrella; Rosalind Elias (ms), Virginella; Cyril Ritchard, Don Andres de Ribeira; Paul Franke (t), Count of Panatellas; Charles Anthony (t), First Notary; Alessio de Paolis (t), Old Prisoner; Theodor Uppman (b), Paquillo; Ralph Herbert (b), Don Pedro de Hinoyosa; Calvin Marsh (b), Second Notary. Chorus and Orchestra of the Metropolitan Opera, Kurt Adler, chorus master, Jean Morel, cond. RCA VICTOR LOC 1029. 12-in. \$4.98.

Both as music and as wit, La Périchole is a little thin, even in the theater. On this record, with its extensive cuts and its attempt to patch by means of spoken natrative, the meagerness becomes more apparent than ever. I also feel that a dissenting vote is in order concerning the superimposition of Patrice Munsel's and Theodor Uppman's healthy Americanism together with Cyril Ritchard's broad Britannicism upon a pseudo-Peruviao French operetta. This is decidedly a stylistic failure, probably inevicable from the beginning in view of the changes of tone wrought by Maurice Valency in his adaptation of the French libretto: the translator who turns "Je t'adore, brigand" into "I adore you, my sweet" may have a sound commercial mind, but he is no stylist.

Those who saw La Périchole in Rolf Gérard's handsome setting and who were able to enjoy the sight as well as the sound of Miss Munsel and Messrs. Ritchard, Uppman, and De Paolis, could well enjoy this record as a pleasant reminder of an amusiog evening. The performance, within the limitations stated above, is good; the sound itself is a little harsh. C.M.S.

- PAGANINI KREISLER: Concerto in One Movement, for Violin and Orchestra — See Saint-Saëns: Concerto for Violin and Orchestra, No. 3, in B minor, Op. 61.
- RIMSKY-KORSAKOV: The Tale of Tsar Saltan: Suite, Op. 57; May Night:

Overture; Easter Overture, Op. 36 ("Grande Páque Russe")

Orchestre de la Suisse Romande, Ernest Ansermet, coud.

LONDON LL 1635. 12-in. \$3.98.

A combination of Rimsky-Korsakov, Ernest Aosermet, l'Orchestre de la Suisse Romande, and London Records is almost bound to mean one thing — some extra-ordinary orchestral sound. This recording gives us plenty of that. One is tempted to adapt a line from the Duchess of Malfi: "Cover the loudspeaker, mine ears dazzle." The quantity, the variety of sound assembled here is undeniably magnificent. Microphone placement is well-nigh perfect - virtually nothing is lost. The recorded sound is sometimes (but only when it should be) weirdly close up, for instance in the bells-and-triangle section of the Russian Easter Overture, just before the final entry of the main theme, or in the remarkably orchestrated sforzandos in the second movement of the Tsar Saltan Suite.

This suite is a real showpiece. It consists of orchestral preludes to three of the acts of the opera, which was completed in 1900 when the old wizard of instrumentation had discovered all there was to discover about his craft. The second movement, a picture of the Tsar's wife and son adrift on the sea, reveals more than technical ingenuity; here craftsmanship rises to genuine artistry.

The Dobrowen-Angel version of the suite is a worthy rival, but Ansermet has the edge for sheer virtuoso brilliance, and the London engineers carry off the laurels for sound. In the *Russian Easter* Overture neither Scherchen nor Paray is a match for the Swiss conductor. D.J.

SAINT-SAENS: Concerto for Violin and Orchestra, No. 3, in B minor, Op. 61

+Paganini-Kreisler: Concerto in One Movement, for Violin and Orchestra

Alfredo Campoli, violin; Loadon Symphony Orchestra, Pierino Gamba, cond. LONDON LL 1624. 12-in. \$3.98.

Campoli is an enormously proficient violinist, one on the order of a Stern, Oistrakh, or anybody else you can name. His tone has amazing solidiry and sweetness, his finger work is impeccable, his intonation is a joy. But he does not seem to me to demonstrate a very interesting musical mind. He plays everything quite the same way - sentimentally with undue rubato and vibrato, and with a cloying quality whenever he has a cantilenz to sustain. Connoisseurs of violin technique, however, should be fascinated by the infinite ease with which Campoli, on this disc, conquers some imposing problems. He has only one serious competitor in the Saint-Saëns, and that is Prancescarti on Columbia ML 4315. The French violinist has much the same approach, but he uses even more vibrato. Of the two I prefer Campoli. In the Paganini-Kreisler, he swarms through the writing, though why anybody should take the trouble to play this when the original is around is a question hard to answer. Admirable recorded sound here, and Gamba leads the London orchestra in precisely adjusted accompaniments. H.C.S.

SCHUBERT: Rosamunde, Op. 26; Ständchen, Op. 135; Psalm 23. Op. 132

Diana Eustrati, contralto; Michael Raucheisen, piano; Berlin Motet Choir; Berlin Philharmonic Orchestra, Fritz Lehmann, cond.

DECCA DXB 144. Two 12-in. \$7.96.

There is, I think, a natural propensity in the record listener to stand stanchly by the recorded performance which first introduced him to a particular work. I first learned the Rosamunde music all the way through in the Westminster edition, with Dean Dixon conducting the Vienna State Opera Orchestra. When Epic brought out its perfunctory version of the complete score, my satisfaction with the Westminster, easily superior despire its stiff phrasing and shrill sound, doubled.

But now comes a Rosamunde of such persuasive beauty and idiomatic charm as to make clear the very real limitations of the Dixon reading. The late Fritz Lehmann takes almost all of the numbers more slowly (he needs three sides, instead of the two of the Westminster and Epic), allowing details hitherto imperceptible to emerge. The famous Andantino (No. 5) virtually becomes an andante and in so becoming provides a perfect setting for the two livelier episodes which interrupt it. The exquisite little wind sextet (No. 6)

is perfectly turned, and the Shepherds' Chorus following it emerges like a fragile Dresden figurine. As to the great B minor entr'acte (No. 2), this performance gives point to Einstein's suggestion that it be used as the finale of the Unfinished Symphony: its constant abrupt switches from pp to ff are executed without a trace of awkward turbulence.

Another advantage of this set is that it contains both overtures associated with the Rosamunde music: Alfonso und Estrella and Die Zauberbarle, Schubert's most successful essay in the Rossini manner.

Side 4 is rounded out with rather runof-the-mill performances of two choruses for female voices. D.L

SCHUMANN: Concerto for Cello and Orchestra, in A minor, Op. 129

Daniel Shafran, cello; State Orchestra of the U.S.S.R., Kiril Kondrashin, cond. VANGUARD VRS 6028. 12-in. \$4.98.

Nothing small-scaled here. Shafran, a young (b. 1923) Russian cellist, is one of those heart-on-sleeve instrumentalists who glories in tone and technique. His playing is warm. not particularly subtle, and features a heavily vibrated line. In many respects he is reminiscent of the young Piacigorsky. Right now his Schumann is a little raw, but impressive nevertheless for its big sweep and expert command of the mechanics involved. Gendron has brought more refinement to the music, and the sober Schuster a more stringent quality of musicianship. Shafran's vir-tuoso treatment supplies the most excitement. As Side 2 fillers he plays a little Haydn divertimento arranged by Piatigorsky and Falla's Suite populaire espagnole arranged by Maréchal. Excellent recorded sound, though in the concerto the balances are heavily in favor of the soloist. H.C.S.

SCHUMANN: Concerto for Piano and Orchestra, in A minor, Op. 54

+Weber: Konzertstück for Piano and Orchestra, in F minor, Op. 79

Friedrich Gulda, piano; Vienna Philhar-monic Orchestra. Volkmar Andreae, cond. LONDON LL 1589. 12-in. \$3.98.

Most currently recorded versions of the Schumann plano concerto get the entire work on one side of a twelve-inch LP. On this disc, however, only the first two movements occupy Side 1; the last movement and the Weber occupy the reverse. This is unfortunate, for in the Schumann concerto the last two movements are connected, and the mood is broken when the disc has to be flipped. Strike one! The recording has a bass boom that I could

Continued on page 78

Schubert Left Lazarus Languishing in the Tomb

J.

GOOD DEAL of mystery surrounds A GOOD DEAL of Lazarus. There is no mention of it by Schubert or any members of his circle. The manuscript turned up in 1830, but in fragmentary form and entirely lacking the third "action," which would have dealt with the raising of Lazarus. Schubert may or may not have finished the score. I tend to agree with Alfred Einstein that he probably did not, that an offer from one of the theaters called him away to try his hand again at dramatic composition.

The manuscript is dated 1820, perhaps the most arid year in the creative life of this most fecund of geniuses, and yet a year which produced two masterpieces, both highly admited by Brahms: the C minor quartet fragment and this unique "religious drama." Very far from being neglected by Schubert biographers and analysts, as the record annotator claims, Lazarus has been highly praised by most of them since Kreissle. Indeed, Einstein considers it an advance upon Lobengrin in technique and calls the first act "a perfect work of Yet it has been very rarely perart." formed. This recording, then, is something of a discovery.

What first occurred to me as I listened to Lazarus was that it was most un-Schubertian. It sounded dry, objective, restrained -unlike the religious works of the master which I most highly regard, the A flat and E flat Masses. The whole aura is curiously archaic; it seems to hearken back past Bach and Handel to the seventeenth century, particularly to Heinrich Schütz. A further hearing brought out the justice of Einstein's Wagner comparison: the harmonic progressions, even the orchestral textures give a strong foretaste of Tanuhäuser and Lohengrin. But by this time Schubert himself is audible, in the wonderful clarinet ducts, singing in thirds and sixths during the pauses in the vocal line, in the miraculous harmonic shifts, even in the triplet rhythms, restrained but still in evidence. The handling of the voices is very close to the ideals of Schubert's lieder, an unusual procedure when he is making use of orchestral rather than piano accompaniment. The words of the eighteenth-century poet Niemeyer obviously moved him in the way Goethe, Heine, and Müller had moved or were to move him, and he gave them his best.

My chief complaint about the performance is that there is not more of it. What a pity that in bravely breaking new ground Winograd and his forces didn'r go the whole distance and give us what remains of the fragmentary second "action," which, if one can judge from the score. contains an even more strikingly Wagnerian arioso-recitative and a big baritone aria. But this is ingratitude. What they do give us is very decently performed. The orchestra has been well dtilled and follows the markings of the score faithfully. There are, however, far too few strings to complement the large wind band (including three trombones) that is called for. and now and then the strings seem to be further reduced to a solo quartet. This helps at times to create the archaic feeling that Schubert had in mind, but too often it merely makes for bad balance. The two male soloisrs are decidedly inferior to the three sopranos; the Lazarus especially has



From 1820, a foreshadowing of Wagner.

an unpleasant whine to his voice and seems incapable of singing softer than mezzo forte.

A word is due the fifteenth-century Flemish master whose magnificent Raising of Lazarus is reproduced on the cover. His name, a savant assures me, is Geertgen tot DAVID JOHNSON Sint Jans.

SCHUBERT: The Death of Lazarus

Barbara Troxell (s), Maria; Ingeborg Reichelt (s), Jemina; Ilse Siekbach (s), Martha; Helmut Kretschmar (t), Lazarus; Rico Monte (t), Nathanael. NDR Chorus, Philharmonia Orchestra of Hamburg, Arthur Winograd, cond. M-G-M E 3526. 12-in. \$3.98.



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ALL YOUR RECORDS SOUND BEST ON A COLUMBIA PHONOGRAPH

Continued from page 75

not remove without removing most of the bass. Strike two! Gulda plays competently, as always, but in a matter-of-fact manner and with virtually no dynamic shading. Everything has a tendency to sound loud. Whether this is strike three is up to the customer to decide. Certainly the recordings by Liparti, Novaes, Rubinstein, Haas, and Serkin should be considered before settling on this. As for the Konzertstück, a superior version exists by Robert Casadesus, who brings to the music qualities of elegance and suppleness that the more prosaic Gulda cannot match. H.C.S.

SHOSTAKOVICH: Symphony No. 10, in E minor, Op. 93

Philharmonia Orchestra, Efrem Kurrz, cond. RCA VICTOR LM 2081. 12-in. \$3.98.

Shostakovich's style begins to sound historic now, and it is difficult to believe that this symphony is only four years old. It resembles the famous Fifth Symphony in its general character, and it holds up well under repeated hearings; but its heroics inevitably recall the great days of World War II and remind us that those days have long receded. This is not adverse criticism; it is merely a comment on the fact that at the age of fifty Shostakovich belongs to the past.

Kurtz's performance is quite good, but the recording sounds like one that has been in the cooler for a long time. A.F.

STRAUSS, RICHARD: Ein Heldenleben, Op. 40

Saxon State Orchestra (Dresden), Karl Böhm, cond.

DBCCA DL 9927. 12-in. \$3.98.

For me the greatest recording of Ein Heldenleben is still the thirty-year-old Willem Mengelberg-New York Philharmonic version recently restored to circulation on the RCA Camden label. Strauss dedicated the score to that great conductor, and even his own recording of it (issued several years ago by Decca) does not make one forget Mengelberg's insight. Nevertheless, like all of Strauss's tone poems, this too benefits



Gueden brings out the best in Strauss.

a great deal from modern reproduction techniques. The very opportunities they present, however, have proven treacherous. One feels in listening to Dorati, Ormandy, and, to some extent, Reiner (all of them superbly reproduced) that sound and fury quite drown out content.

Not so with the present recording. Böhm is no Mengelberg, and the Saxon State Orchestra is no New York Philharmonic, but together they do a first-class job. It is not a consistently interesting performance, but then Ein Heldenleben is not a consistently interesting work. The Dresden musicians rise to its great moments, however — the tender tribute to Strauss's Pauline (who, one wonders, is the fine solo violinist?), the pompous but irresistible marshalling of hit tunes from the earlier tone poents, and the glorious peroration for horns and solo violin. Böhm's handling of these final pages will bear comparison with any available version.

The recorded sound does not represent Deutsche Grammophon at its best but is quite acceptable. D.J.

STRAUSS. RICHARD: Lieder

Einerlei; Säusle, liche Myrte: Der Storn; Schlechtes Wetter; Ich wollt' ein Sträusslein binden; Als mir dein Lied erklang; Freundliche Vision; Schlagende Herzen; Heimkehr; Befreit; Die Nacht; Wie sollten wir geheim sie halten; Meinem Kinde.

Hilde Gueden, soprzoo; Friedrich Gulda, piano.

LONDON LL 1591. 12-in. \$3.98.

On the whole, the devaluation of Strauss as one of the great masters of the lied has been unjust, because in fact he left much beautiful music in a field that occupied him steadily throughout his long life. The main defect of the output as a whole is his failure to find a musical equivalent for an elevated poetic style as readily as he found the appropriate music in an erotic, humorous, groresque, or sentimental situation. One of the great compensatory merits, however, is his love and understanding of the human voice, particularly the soprano voice (a preference deeply linked with his personal life), and no musician in our century has written more effective vocal music as such. The selection of lieder made for this record displays Strauss at his besr, and we should be very grateful for this fresh and intelligent program.

Hilde Gueden's voice is not quite the ravishing instrument it was when we first began to hear her recordings six or seven years ago. It has become a little hard, and occasionally there is a slight tremolo to cloud the high notes. But the disappointment is only relative; Miss Gueden still sings exceptionally beautifully, with wit, charm, and interpretative understanding. She is singularly fortunate in her collaborator, Friedrich Gulda, a sensitive and brilliant pianist who plays with a bite and incision perfectly matched to Gueden's own sharpness of mind and style. Complete texts in German and English are provided. and the sleeve annotations by William Mann are excellent. The piano itself has a slightly shallow rone, but it has been recorded so as to be heard in exactly the right relationship to the voice, around rather than behind it. C.M.S.

STRAUSS, RICHARD: Sonata for Cello and Piano, in F, Op. 6 — See Mendelssohn: Sonata for Cello and Piano, in D, Op. 58.

STRAVINSKY: Fire Bird: Suite +Tchaikovsky: Romeo and Juliet

New York Philharmonic-Symphony Orchestra, Leonard Bernstein, cond. COLUMBIA ML 5182. 12-in. \$3.98.

The Stravinsky is given a sensitive performance where it needs to be sensitive and a very vigorous performance where it needs to be vigorous; the recording is extremely brilliant and good to hear. But perhaps the most remarkable thing about this, the thirteenth Fire Bird Suite in current LP listings, is the extraordinaty tilling of the individual movements on the label. For instance, the first movement is called The Fire Bird and His Dance. Isn't the Fire Bird a lady?

This critic charges time and a half for listening to Romeo and Julies all the way through, but a sampling of this version sounds all right, if that piece of hysterical claptrap ever does. A.F.

TCHAIKOVSKY: Sevenade for Strings, in C, Op. 48

+Barber: Adagio for Strings, Op. 11

+Elgar: Introduction and Allegro for Strings, Op. 47

Strings of the Boston Symphony Orchestra, Charles Munch, cond.

RCA VICTOR LM 2105. 12-in. \$3.98.

It is interesting to compare this version of the Tchaikovsky Serenade with Koussevirsky's. Both men lead essentially the same string section, but there is appreciable difference in the results. Koussevitsky's reading is far more extrovert, fullblooded, and, somehow, authentic. Munch is reticent, poeric, frequently at odds with the dynamic markings of the score (and always in the direction of softer sound; at times he utterly ignores swells and. fortissimos). Of course the new version has the advantage of superior tonal reproduction, though for my taste the sound is somewhat too veiled and the bass too reticent. Still, it is a remarkable performance, particularly in the opulent, dark velver sounds the Boston strings produce.

Barber's evocation of the satabands of Johann Sebastian Bach is performed with moving intensity, and the passionate Introduction and Allegto of Elgar is finely conceived too. D.J.

TCHAIKOVSKY: Serenade for Strings, in C. Op. 48 — See Mendelssohn: Octet in E flat, Op. 20.

TCHAIKOVSKY: Symphony No. 3, in D ("Polish")

London Symphony Orchestra, Sir Adrian Boult, cund.

LONDON LL 1442. 12-in. \$3.98.

There is no morbid introspection in this symphony. It is laid out in bright, primary colors: the clarinet waits for the oboc to finish its phrase before venturing upon a phrase of its own, and all the instruments defer to the bassoon, which reigns supreme in the three middle movements. Melodically it represents Tchaikovsky at the peak of his invention. He was to discover form in the last three symphonies but rarely was he to recapture the spontaneity of melody characteristic of this and other works of the 1870s.

What a good performance of the Third demands is gusto, a continuous forward thrust. And this, alas, is what Boult's performance lacks. It is polite. It rarely ventures beyond the bounds of good taste. The trumpets seldom blare (they sound like clarinets at times, and the horns like bassoons) and the crescendos seldom swell into double fortes. One feels behind the reading decades of well-bred Prom performances at the Albert Hall. Not surprisingly, the Andante, with its Elgarian middle section, is the best played movement. But the sly scherzo is listless, and it is not until the coda of the finale that things are going right again. Here Boult unexpectedly whips his men into a storm of excitement: when they slap down upon the final dominant chord (no less than fifteen times!) all politeness is forgotteo.

The recording, aside from an undue prominence in the wood winds, is firstrate, and there is no competing version except in RCA Camden's complete edition of the six symphonies. D.J.

VERDI: 71 Trovatore

Maria Meneghini Callas (s), Leonora; Fedora Barbieri (ms), Azucena; Luisa Villa (ms), Ines; Giuseppe di Stefano (t), Manrico; Renato Ercolani (t), Ruiz, Messenger; Rolando Panerai (b), Count di Luna; Nicola Zaccaria (bs), Ferrando; Giulio Mauri (bs), Gypsy. Chorus and Orchestra of Teatro alla Scala (Milan), Herbert von Karajan, cond.

ANGEL 3554. Three 12-in. (5 sides) \$14.94 (or \$10.44).

The principal features here are the contributions of Callas and Von Karajan. Callas, I think, has done nothing more successful for the microphone than this album. She seems particularly suited to the part of Leonota: it challenges all the best in her, and it leaves her main weakness (a cettain absence of warmth, warmth as opposed to heat) unexplored.

As often, Callas makes unpleasant sounds at the top of her range, but otherwise the voice is in good condition. Her execution of coloratura is impressive, but not more so than her understanding of Verdi's use of it. Listen to her sing the cabaletta of her first aria and the duet with Di Luna in the last act, or heat what is most moving of all, the passage in the second finale beginning "E deggio e posso crederlo?," and you may understand as never before that such florid writing is no intrusion, but rather a sign of Verdi's identification of "the redundancies of ornament with the overflowings of feeling." And in the quiet, undecorated phrases of "Tacea la notte" and "D'amor sull'ali rosee" you can hear the same understanding, musicality, and technique contributing to a result that in its less showy way is equally miraculous.



Verdi brings out the best in Callas,

Von Karaian tolerates certain details that Toscanini would not have permitted, namely some cuts and the traditional interpolations of high Cs and B flats, but with these exceptions his accomplishment is on a level unattained by conductors other than Toscanini. His grasp of the opera is entire and right, he is clearly in charge, and he exacts and obtains orchestral playing of refinement and fantastic precision. I have never heard the Soldiers' Chorus and the Anvil Chorus sung with such snap and alertness, nor the complicated second finale with such lightness and security. And to hear the end of the Prologue really executed as Verdi prescribes, first pppp, then ppppp, is a breathtaking experience.

Judged by the standards of the Manticos we generally hear, Di Stefano is not bad, but considered in terms of what Verdi plainly wanted, his interpretation is rather shocking. Di Stefano has a beautiful voice which he manages with virtuosity, but he likes to do so by his own lights rather than by Verdi's. The beginning of the off-stage serenade is to be sung mezza voce, but it is all belted out con tutta forza. The words "non ferir!" at the end of "Mal reggendo" should emerge dramatically in a sudden pp sollo voce, and again we get the loudest possible sound. When there are no such direct violations, there are other annoying trespasses; for example, the slides and scoops in the little wedding duet with organ, or the whole conversation with Leonora in the last act, done with a vulgar abandon far more appropriate to one of Mascagni's ill-bred heroes. The interpretative traditions of verismo are gutter-hred and have no more place in Trovatore than in Don Gigranni.

Panerai would be a good Di Luna except that his fine baritone voice sounds lusterless and frequently a fraction below pitch — perhaps the result of fatigue. Barbieri's voice sounds better here than in the recent Ballo in maschera album, but even so there are too many tremulous, unfocused notes, some, I dare say, due to her excessively violent approach to the role. Zaccaria makes the most of his part, and the most turns out to be rather more than one might think from most performances one hears. Cuts are few: a stanza each of "Di tale amor" and "Tn vedrai" plus some tiny prunings, one of which spoils a characteristic Verdian tempo change in the first finale.

The RCA Victor recording has Bjoerling and Warren, who are both line, as well as Milanov, who has some great moments and who also contributes much chaos. Barbieri is better here than on Angel. The chief drawbacks of the enterprise are the brutal cuts and the feeble conducting of Renato Cellini. London offers Tebaldi, who gives a beautiful performance in her own rather narcissistic style. Del Monaco's musicianship is inadequate and I find the sound itself unpleasant, nor is Savarese at all gratifying as Di Luna. Simionato sings Azucena with beauty of voice and phrasing and with a certain reserve that I find more effective than Barbieri's vehemence. Erede is not forceful enough a conductor for this music, and the recording is less good than RCA's or Angel's. Even with its exasperating moments taken into account, the new Angel version offers the most and the best C.M.S. by far.

WEBER: Konzertstäck for Piano and Orchestra, in F minor, Op. 79 – See Schumann: Concerto for Piano and Orchestra, in A minor, Op. 54.

WEILL: The Seven Deadly Sins

Lotte Lenya, Anna; Julius Katona, Fritz Göllnitz, Ernst Poettgen, and Sigmund Roth, The Family. Orchestra, Wilhelm Brückner-Rüggeberg, cond. COLUMBIA KL 5175. 12-in. \$5:98.

The Weill revival marches on and has now brought to light a work hardly even known by name to the many admirets of the *Three Penny Opera* and *Mabagonny*. *The Seven Deadly Sins* dates from a transitional period in the composer's career, written during his brief stay in Paris between leaving Germany in 1933 and coming to this country in 1935. It was produced in Paris by Les Ballets 1933, with a distinguished group of collaborators including Bertolt Brecht and George Balanchine.

The theme of the work, well summarized in the excellent annotations, is ". . . that of 'the Siamese sisters that exist, indissolubly linked, in the nature of every woman.' These two sisters (are they really one character of split personality?), both named Anna, go out into the world to earn the money with which their family is to buy a house. The clash between the opposite impulses of the two Annas occurs seven times on their journey when they must face, one after another, the seven deadly sins. The practical, cool-headed Anna tells her story in words, while the pretty, hotly entotional Anna tells hers through movement. The family - father, mother, and two brothers - is sung by a ruale quarter, with the mother booming her pious anxieties in basso profundo."

The music is instantly recognizable as Kurt Weill, even without the spare, sardonic crackle of the *Three Penny Opera* and the various works represented in Lenya's record of Berlin Theatre Songs. A full orchestra is used here, one whose basic tone is that of the string ensemble, and such "civilized" instruments as the flute and the oboe have important parts to play. The melodic idiom is highly characteristic, and it is a marveiously penetrating equivalent of Brecht's poetic idiom. While The Seven Deadly Sins is sometimes disturbing because it shows the first trace of sentimentality in Weill's work, it has plenty of brilliant moments, and no work of his offers anything superior in dramatic penetration and musical workmanship to the movements entitled Pride, Gluttony, and Lust.

I could hardly imagine a better performance. Lotte Lenya. who also sang in the original Paris production, is at her best here, a statement that requires no further elaboration. The male quartet is likewise superb. its topmost member outstanding not only during his extended solo in Coverousness, but throughout for the sharpness and tonal and rhythmic precision he gives the ensemble. And since Ljuba Welitch sang the words " Hat es nach Blut geschmeckt?," phonography has not re-corded a more mouth-watering sound than the bass's intonation in Gluttony of the word "Schnitzel"! The orchestra is not always up to the highest virtuoso standards, especially in the lower strings, but it is absolutely alert to Brückner-Rüggenberg's stick, as alert as he himself obviously is to every detail of mood and sound in the score. Complete texts in German and English are provided along with some good pictures of the highly photogenic Lenya. The unsigned notes are excellent, and Tom Allen's cover painting is a pleasure on a level with the others afforded by this fine record. C.M.S.

More Briefly Noted

Albéniz: Mallorca, Op. 202; El Abaicín; Asturias, Op. 47. No. 5; Cordóba, Op. 232. No. 4; Rondeña; El Corpus en Sevilla. London TW 91151.

Raphaël Arroyo, a French-trained Spanish pianist, puts the emphasis here on accuracy and clarity rather than nuance and color. These Albéniz pieces consequently suffer from dullness.

Arnold: "Homage to the Queen." RCA Victor LM 2037.

A series of divertissements created for presentation by Sadler's Wells at Elizabeth II's coronation, this music plays a functional role in connection with the ballets. By itself, it is pretry empty, although well recorded and well played by the Philharmonia Orchestra under Robert Irving.

Bach: Suites: No. 1, in G. S. 1007; No. 3, in C, S. 1009. Decca DL 9914.

Musicianly performances, by Lillian Fuchs, of these two cello suites arranged for viola. She now has recorded all six.

Beethoven: Symphony No. 5, in C minor (with Schubert's Unfinished), M-G-M E 3509.

Perfunctory performances (by the Philharmonia Orchestra of Hamburg, under Arthur Winograd) in a recording unpleasantly "hi-fi" on top, vapid and boomy below.

Brahms: Variations and Fugue on a theme of Handel, Op. 24; Rhapsodies: in B minor, Op. 79, No. 1; in G minor, Op. 79, No. 2; in G minor, Op. 119, No. 4. Capitol P 18049.

Victor Schiöler's playing of the Handel variations exhibits only routine competence. He is better in the Rhapsodies, but Rubinstein's (RCA Victor LM 1787) is still the preferred version.

Clementi: Trios: Nos. 1, 2, 3, 6 ("La Chasse"); Op. 32, No. 1; Op. 32, No. 2. Epic LC 3351.

The Trio di Bolzano offers competent performances of what are, in fact, little piano sonatas with string accompaniment. Occasionally, pleasant ideas do pop up, and the Rondo of Op. 32, No. 2 is wholly charming.

Debussy: Trois Ballades de François Villon (with Britten: Les Illuminations, and Ravel: Sbéhérazade; Don Quichotte à Dulcinée). Epic LC 3355.

Debussy's Villon cycle and Ravel's Don Quichotte exist only here on LP. They are superbly performed and recorded. These recordings also are first-rate versions of the other works (though omission of the Rimbaud texts for the Verlaine is a deprivation). Janine Micheau and Camille Maurane are the soloists, with the Orchestre des Concerts Lamoureux under Paul Sacher and Jean Fournet.

Donizetti: Quartet No. 9, in D minor (with Bazzini: Quartet No. 3, in E flat,

Op. 76). Telefunken LGX 66663. Donizetti's quartets were intended for private performance only, but No. 9 exhibits considerable facility — and certainly an acquaintance with Beethoven and Haydn. Bazzini's work suggests his familiarity with formal requirements but not much individual imagination. The Quartetto della Scala is more effective in Donizetti's work, but a certain flatness pervades both performances.

Grieg: Peer Gym: Suites Nos. 1 and 2, Opp. 46 and 55; Norwegian Dances, Op. 35. Angel 35425.

Respectful performances of the Peer Gynt Suites, admirable versions (if not up to Tuxen's for Mercury) of the gay, folklike Norwegian Dances — by Walter Süsskind and the Philharmonia Orchestra.

Handel: Overtures: Alcina; Berenice (with Gluck: Alceste Overture and Schumann:

Manfred Overture). London LL 1551. Fine handling of the bracing Handel music, by Boyd Neel, leading the Boyd Neel Orchestra. Munchinger conducts the Orchestre de la Suisse Romande in a pedestrian Manfred and an Alceste better, but not much.

Liadov: Orchestral Works (with Balakirev: Islamey; Oriental Fantasy). Vox PL 10280.

Excellent playing, by the Bamberg Symphony under Jonel Perlea, of most of Liadov's orchestral output. Balakirev's virtuosic *Islamey* also emerges with expert playing and sound.

Schumann: Waldszenen, Op. 82; Kinderszenen, Op. 15. Epic LC 3358.

Intelligent and sensitive performances by Clara Haskil, but inferior to Richter's Waldszenen (for Decca) and several versions of the Kinderszenen. Recorded sound good.

Suppé: Overtures. Angel 35427.

The Poet and Peasant, Morning, Noon, and Night in Vienna, etc. sparklingly played by the Philharmonia Promenade Orchestra under Henry Krips and superbly recorded.

Weber: Overrures. Decca DL 9906.

Well-played versions of Freischütz (Lehmann), Oberon (Jochum), and Enryanthe (Leitner) with the Bamberg Symphony and the Philharmonic Orchestra, but far from being the equals of Toscanini's recordings (LM 6026). Workmanlike performances by the same groups of the overtures to Preziosa, Jubel, and Peter Schmoll.

RECITALS AND MISCELLANY

LAURINDO ALMEIDA: "Impressoes do Brasil"

Radamés Gnattoli: Concertino for Guitar and Piano; Saudade. Annibal Sardinha: Chôro Triste; Chôro Gracioso; Nosso Chôro. Almeida: Serenata; Copacabana Sunset. Villa-Lobos: Gavota-Chôro.

Laurindo Almeida, guitar; Ray Turner, piano (in the Concertino). CAPITOL P 8381. t2-in. \$3.98.

The novel combination of guitar and piano. presented in the Gnattoli concertino, works out better than one would think. As long as the piano is used delicately, its tone blends smoothly with the guitar; and fortunately, both in Gnattoli's neat writing and Ray Turner's discreet playing the juxtaposition of the two rimbres works. Otherwise, the concertino, which takes up most of one side of the disc, is an eclectic work, with its native and Spanish elements disconcertingly dominated by Gershwinesque jazz harmonies. The effect is never cheap enough to attract the Warsaw Concerto lovers, but it is too banal for the serious minded. This charge can also be leveled at the rest of these Brazilian pieces, which seem like nothing more than elaborated versions of sentimental, popular Latin American ballads.

Mr. Almeida plays with his customary skill, R.E.

ATAULFO ARGENTA: España

Vol. I — Albéniz: Navarra. Guridi: Ten Basque Dances. Turina: La Procesión del rocio. Op. 9; La Oracion del Torero. Op. 34.

Vol. IV — Breton: La Dolores: Jota. Chapi: Prelude to El tambor del Granaderos; Prelude to La revoltosa. Giménez: La torre del oro: Intermezzo; La boda de Luis Alonso: Intermezzo; La baile de Luis Alonso: Intermezzo. Granados: Goyescas: Intermezzo. Luna: La picara molinera: Intermezzo.

Orquesta Nacional de España (in Vol. 1): Orquesta de Camera de Madrid (in Vol. IV); Ataulfo Argenta, cond.

Continued on page 82

LATEST **CLASSICAL RECORDINGS** IN SUPERLATIVE HIGH FIDELITY



E MINOR (Dvorak) Vienna Phil. Orch. Cond. Rafael Kubelik. LL-1607



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SYMPHONY NO. 1 IN C MINOR (Brahms) Vienna Philbarmonic Orchestra. Cond. Joseph Krips. 11-1608

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VIOLIN CONCERTO IN D MAJOR (Tchaikovsky) Campoli (violin). London Sym. Orch. Cond. Atauljo Argenia. LL-1647

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CARMEN (Bizet) Suzanne Juyol as Carmen, Janine Micheau as Micaela, Libero De Luca as Don Jose, Chorus and Orchestra of the Opera-Comiane, Paris, Cond: Albert Wolf.

MANON (Massenet) Janine Micheau as Manon Lescaut. L'Orcheure et Choeurs de L'Opera-Comligne, Paris. Cond. Albert Wolff. LL-1114

ROMEO ET JULIETTE (Gounod) Janine Micheau as Juliet, Raoul Jobin as Romeo. Soloins, Chorns and Orchestra of Le Theatre National de L'Opera. Cond. Alberto Erede. LL-1111

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LONDON LL 1585/1689. Two 12-in. \$3.98 each.

These two records are from a group of five, the first release in London's ambitious project of recording the greater part of the Spanish repertory with the authenticity of the performances guaranteed by the national origin and reputation of the performers. Almost all of the music presented here is unfamiliar to North American audiences.

Although the Albéniz, Guridi, and Turina may be regarded as concert pieces, they are fundamentally light music. The collection in Volume IV is drawn from zarzuelas—"traditional operettas" as London calls them — and makes no pretense of being other than entertainment. (The exception is *Goyescas* which received its première at the Metropolitan in 1916.) The thematic material of the music on these discs runs along pretty closely prescribed lines, just as convention governs the manner in which it is treated and orchestrated. As background music it is excellent; for listening, it becomes tiring and repetitious after a half hour or less.

Argenta's sympathy for the music is obvious and his splendid performances are captured withour any loss of vitality. R.C.M.

SIR THOMAS BEECHAM

Tchaikovsky: Nutcracker Suita, Op. 17a. Chabrier: España. Ponchielli: La Gioconda: Dance of the Hours. Suppe: Morning, Noon and Night in Vienna: Overture.

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The Haydn Society INC. 119 WEST 23rd STREET NEW YORK 11, N.Y.

Royal Philharmonic Orchestra, Sir Thomas Beecham, cond.

COLUMBIA ML 5171. 12-in. \$3.98.

By now, anything that Sir Thomas Beecham does should come as no surprise. Yet not one of the dozens of first-rate disc representations of the familiar Nutcratker Suite has been quite like this. Beecham forgets all about the story connected with it and treats it as pure music. As a result, it emerges as fresh and exhilarating as if it had never been performed before. Especially is this true of the more delicate movements.

The Chabrier, Ponchielli, and Suppé are all reissues of recordings released several years ago in Columbia's ten-inch "AL" series. None of them has the elegance of Beecham's Nutcracker—he presented *España* much more effectively on 78 rpm some fifteen years back—but he seems to be having a good time with these potboilets, especially the noisy Suppé overture. Reproduction throughout is more than satisfactory, though it is most transparent in the Tchaikovsky. P.A.

FERNANDO CORENA: Opera Arias

Rossini: La Cenerentola: "Miei rampolli femminini": "Sia qualunque delle figlier'. L'Italiana in Algeri: "Ho un gran peso sulla testa." Cimatosa: Il matrimonio segreto: "Udite, tutti, udite!" Massenet: Grisélidis: "Jusqu'ici, sans danger." Thomas: Le Caïd: Air du Tambour-Majo. Saint-Saëns: Le pas d'armes du Roi Jean. Gounod: Philémon et Baucis: "Couplets de Vulcan." Offenbach: La Grande Duchesse de Gérolstein: "A cheval sur la discipline."

Fernando Corena, bass; Orchestra of the Maggio Musicale Fiorentino, Gianandrea Gavazzeni, cond.: Orchestre de la Suisse Romande, James Walker, cond. LONDON LL 1636. 12-in. \$3.98.

The "news" of this London disc is the inclusion of five selections culled from the repertoire of the Opéra-Comique, the Théâtre-Lyrique, and the Théâtre des Variétés, redolent of mid-ninetcenth-century Paris boulevards. Delightful fare this is, none of which is to be found throughout the length and breadth of Schwano's catalogue. Corena, who was born in Lausanne and brought up in Switzerland, demonstrates excellent French diction as well as the panache for this spirited music. He is at his best in General Boum's swaggering air from Offenbach's La Grande Duchesse de Gérolstein-the very essence of the Second Empire; nothing in La Périchole is so zestful or so characteristic. The Conplets de Vulcan from Gounod's Philemon et Bancis was a favorite fifty of more years ago with Pol Plançon and other bassos of the period; so was the rousing Air du Tambour-Major from Thomas' Le Caid with its florid military passages. It must be admitted that Corena doesn't come close to the elegance and technical aplomb of Plançon; a comparison of their respective recordings will offer an eloquent demonstruction of the decline in vocal finish and execution over the past half century. However, Corena makes up in some measure with a grear deal of spirit and a solid emphasis on the text. The aria from Massenet's Grisélidis, in which the Devil rejoices in the absence of his nagging wife, and Saint-Saëns' fine Le Pas d'Armes du Roi Jean are also welcome additions to the recorded repertoire. Texts and translations would have greatly increased the pleasure of the listener, for the words are delightfully droll and witty. However, the notes do give some idea of what is going on.

On the reverse of the disc are three buffo arias by Rossini and one by Cimarosa. Corena is a famed exponent of early nineteenth-century opera buffa, and his performances here are capitally presented. The recording, particularly on the French side, is very brilliant and alive. M. DE S.

LISA DELLA CASA: Opera Arias

Handel: Giulio Cesare: "Hast du mich ganz herauschs"; "Es blaut die Nacht"; "Breite aus, die gnäd'gen Hände"; "Weine nur, klage nur"; "Heil und sicher kam mein Nachen." Mozart: Don Giovanni: "In quali eccessi. . . Mi tradi"; "Ah! fuggi il traditor!"; "Crudele . . Non mi dir"; Così fan tutte: "Per pietà, ben mio; Le nozze di Figaro: "Dove sono?."

Lisa Della Casa, soprano; Vienna Philharmonic Orchestra, Heinrich Hollreiser, Josef Krips, Karl Böhm. Erich Kleiber, conds.

LONDON LL 1576. 12-in. \$3.98.

One becomes immediately aware in listening to these Handel and Mozart arias (particularly the five excerpts from *Ginlio Cesare*), that the charming Swiss soprano is an uncommonly well-grounded stylist, served by a completely workable technique. Miss Della Casa sings knowingly, using a smallish voice that will remind you of Elisabeth Schumann's in its silvery, impersonal fragility.

The true classic style is further enhanced by the use of a harpsichord in the accompanying orchestra for the Handel arias. These are the most interesting feature of the new London disc. The Mozart selections, expertly sung as they are, have been surpassed by other singers' performances on records. On the other hand, the authority Miss Della Casa achieved in her impressive success at the Munich Festivals of 1955 and 1956 in the difficult role of Cleopatra in *Giulio Cesare* can be clearly felt in this music. Lovely music it is, roo, which she sings with a disarming objectivity.

The Vienna Philharmonic, manned by four different conductors, gives elegant support, and the carefully balanced sound is what one may expect from London. M. DB S.

JOSE ECHANIZ: "Latin-American Rhythms"

José Echániz, pianist.

WESTMINSTER XWN 18430. 12-in. \$3.98.

The title is both unimaginative and misleading; this is no collection of rumbas and sambas but an anthology of subtly made piano pieces, in a great variety of styles, by ten different composers. The best of them are: two preludes by Carlos Chávez, one very simple and "Indian" in character, the other very dissonant and motoric; the waywardly tuneful *Pastoral Lullaby* of Alejandro García Caturla; and the brilliant, gamelanlike Toccata of Juan José Castro. There are also interesting pieces, if slighter in stature, by Octavio Maul, Alberto Ginastera, Francisco Mignone, Camargo Guarnieri, Oscar Lorenzo Fernandez, Gisela Hernández, and Heitor Villa-Lobos.

I'ew play the piano music of Spanish and Latin American composers as well as Echániz, whose elegant and vital interpretations have been beautifully recorded here. It is ro be hoped that he will eventually record all ten of the Chávez preludes. A.F.

VLADIMIR HOROWITZ: "Horowitz in Recital"

Schumann: Variations on a theme by Clara Wieck. Chopin: Polonaise No. 7, in A flat, Op. 61 ("Polonaise-fantaisie"); Mazurka, in B flat minor, Op. 24, No. 2. Haydn: Sonata, in E flat. Brahms: Intermezzo, in B flat minor, Op. 117, No. 2. Scarlatti: Sonata, in E, L. 23. Moszkowski: Etincelles. Scriabin: Preludes: in D, Op. 11, No. 5; in G sharp minor, Op. 22, No. 1. Sousa-Horowitz: The Stars and Stripes Forever.

Vladimir Horowitz, piano. RCA VICTOR 1957. 12-in. \$3.98.

Victor tells us that all of the music here, except for the two Scriabin preludes, comes "from actual public performances." But when? Where? One concert or several? My guess is Carnegie Hall in the early 1950s. Like so many of Horowitz's previous discs, this is a miniature recital, ranging from Scarlatti and Haydn through Horowitz's own audience stunner, The Stars and Stripes Forever. The recorded sound is quite good, despite some unavoidable background noise, and there is some remarkable playing.

Horowitz is not supposed to be a "classic" pianist, but how many pianists before the public perform Haydn so delightfully? The precision of the articulation, the evenness, the soberly spun lines of the slow movement, the dash of the finale - all this is vital and honest music making. There are some interesting ideas in the Polomaise-fantaisie, and Horowitz manages to hold the work together, no easy matter in such disconnected writing. The Schumann work, a movement from the F minor Sonata, is one of Schumann's typically introverted, allusive sketches. Var-iation 3 is marked "Passionato," but Horowitz offers an interpretation that is almost nocturnelike, simple and lyrical. Those who think of Horowitz only as a technician are invited to listen to the Scriabin G sharp minor Prelude (mislabeled on this disc as Op. 21), with its wonderful changes of registration and constant play of light and shade. And those who do respond to the Horowitz rechnique should be delighted with Etincelles. The transcendental virtuosity of Horowitz's transcription of the Sousa match is to be treated with the utmost respect, while the music itself is to be taken for what it is - a lot of good. clean fun. H.C.S.

DICK LEIBERT: "Leibert Takes a Holiday"

Dick Leibert, organ.

WESTMINSTER WP 6042. 12-in. \$3.98.

Mr. Leibert is back at the Mighry Wur-

litzer Organ of the Byrd Theatre in Richmond, Virginia, on a busman's holiday, with some Westminster engineers trailing right behind him. The recording is further proof of Mr. Leibert's superiority in his field. Listen to the fluidity of the tegistration changes in *That Old Black Magic* and the way in which it supports or contrasts the phrasing, or to the delicacy of the rhythmic underpinning for September Song. There is a brilliant display of virtuosity in the xylophone duet in his own Valse Rbythmic, and for fun he throws everything and the kitchen sink into the Donkey Serenade. R.E.

ANDRES SEGOVIA: "Segovia and the Guitar"

Luys de Narváez: Cancion del Emperador (sobre "Mille Regretz" de Josquin); Variations on Guardame las vacas. Dowland: Song and Galliard for Lute. A. Scarlatti: Preambulo and Gavota. D. Scarlatti: Sonata in C minor (L. 352). Oscar Esplá: Dos Impresiones Levantinas. Joan Manén: Fantasia-Sonata.

Andrés Segovia, guitar. DECCA DL 9931. 12-in. \$3.98.

The master's tenth record for Decca is one of his best, largely because the contemporary work by Manén, which occupies one side, is of high quality. The Fantasia-Sonata, inspired by and dedicated to Segovia, is of primary value because in using the full coloristic resources of the guitar it elicits some of the artist's most magical playing. It is a broodingly romantic work, in the best Spanish-French tradition, full of juicy chords. plaintive wisps of melody, fragmentary bursts of rhythm. While maintaining an improvisatory character, it is held together by a kind of unity of thematic material and Manén's gift for transition from section to section. In Segovia's miraculous performance this sensuous, nonproblematic work should prove very popular.

The two sets of variations by the sixteenth-century Narvácz and Segovia's transcriptions of the Dowland and Scarlatti pieces have a purity and grace that balance beautifully the heady richness of the Manén sonata. Esplá's twentieth-century trifles are of interest mainly because they have also been recorded by Narciso Yépès, who plays them with more stylish wit and less sensuality than Segovia does. Spacious sound with a resonance that does not cloud the music. R.E.

GIULIETTA SIMIONATO: Operatic Recital

Saint-Saëns: Samson et Dalila: "Printemps qui commence." Thomas: Mignon: "Connais-tu le pays?." Massenet: Werther: "Les lettres." Bizet: Carmen: "Habanera." Rossini: Il barbiere di Siviglia: "Una voce poco fa." Verdi: Don Carlo: "O don fauale!" Bettini: I Capuleti ed i Montecchi: "Deb! tu bell' anima." Rossini: La Cenerentola: "Nacqui all' affanno"; "Non più mesta."

Giulietta Simionato, mezzo-soprano; Orchestra of the Accademia di Santa Cecilia

Continued on page 86

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Continued from page 83

(Rome), Fernando Previtali and Franco Ghione, conds.

LONDON LL 1580. 12-in. \$3.98.

Giulietta Simionaro, best known as Italy's leading exponent of florid mezzo-soprann roles and much admired in the music of Verdi, Donizetti, and, particularly, Rossini, is now heard as well in four examples of French nineteenth-century opera.

Truth compels me to report that the singer misses much of the caressing blandishments of Dalila, while her Mignon impresses as a very mature person. She takes the heroine's nostalgia an grand sérienx, nor does she refrain from certain liberties in the climax. Her Carmen is bold and earthy, but little more. She is most successful in voiting the tribulations of Charlotte during the affecting scene of the letters. Miss Simionato's French diction (barring a few stray Italianisms) is respectable, and the voice, as we know, is an excellent instrument. Fernando Previtali conducts with refinement, but the volume level varies. In parts of the Werther passage, the orchestra sounds quite faint.

On the reverse of this twelve-inch record are arias from Barbiere, Don Carlo, Cenerentola, and I Capuleti ed i Montecchi, once assembled on London's ten-inch disc LD 9162, and reviewed by James Hinton, Jr., whose comments may be found in High Fidelity Record Annual 1955. M. DE S.

The Old Master of Sonic Showmanship

TO INTRODUCE its "new" conductor Leopold Stokowski, Capitol has come forth with a spectacularly good display disc that exhibits the sections of the orchestra singly and collectively. The sound might be called mellow; this is in part due to the somewhat distant microphoning technique currently espoused by Capitol's engineering policy makers. But don't let it fool you. The whole sonic gamut is there, as just a few revolutions of Dukas' brass fanfare from La Péri will prove. The mellowness might better be called sweetness, and it stems in part from a very fine processing technique that virtually throws distortion in the basker with discarded tape.

Stokowski shines in endeavors such as this; he is completely in his element. A long-time veteran of record making and a largely self-educated pioneer in the world of sound recording, he has drawn upon years of experimentation and the results thereof in this presentation. He selected the orchestra himself — a group of New Ynrk musicians drawn from many sources and billed here merely as "his Symphony Orchestra." And rightly so; the influence of its conductor is unmistakable.

The tonal beauty of the record lies mainly in its carefully preserved sonic perspective. In the Péri fanfare the brasses are sharp and big sounding, but clean in



Leopold Stokowski

every detail, without a trace of fuzziness. The strings in Barber's Adagio are — there is only one word for it — breathtaking. While the velvety sheen of massed violins is a sound never perfectly reproduced on records, this disc comes as close as any. The blending is superb, and the low-pitched guttiness of the double basses reaches out with matchless realism. Individual or chestral sounds are demonstrated further by the Gavotte from Strauss's Suite for Winds — a particularly apt choice in which at times the winds appear blended yet each instrument has its own solo part.

The percussion band — Section I of Farberman's Evolution with gongs, xylophones. bells, cymbals, and drums alternating for attention — is the most striking section of the entire record. Here the sound, thrugh sparkling, is devoid of the overemphasis sometimes employed purely for the sake of sensationalism. Nevertheless, perfectly recorded percussion can be sensational in its own right.

Side 2 combines the individual instrumental sections demonstrated on the first side. Again, the recording is top notch, although, of course, not quite so intimate. The last movements of Mussorgsky's *Piclures* are not as gripping as in the Toscanini-RCA Victor masterpiece, but this is only a tiny disappointment in an otherwise highly interesting and sonically satisfying enterprise. The 24-page illustrated brochure accompanying the disc is a bonus which the neophyte collector will find very informative. PHILIP GERACI

LEOPOLD STOKOWSKI: "The Orches--Ira"

Dukas: La Péri: Fanfare. Barber: Adagio for Strings, Op. 11. Richard Strauss: Suite for Winds, in B flat, Op. 4: Gavotte. Harold Farberman: Evolution: Section I. Vaughan Williams: Symphony No. 8, in D minor: Scherzo alla marcia. Vincent Persichetti: Divertimento for Band: March. Tchaikovsky: Symphony No. 4, in F minor: Scherzo. Mussorgsky: Pictures from an exbibition (orch. Ravel): "The Hut on Fowl's Legs," "The Great Gate of Kiev."

Symphony orchestra, Leopold Stokowski, cond.

CAPITOL SAL 8385. 12-in. \$6.75.

SPOTLIGHT ON STRINGS

Albert Bernard, Alison Fowle, Martin Hoherman, George Humphrey, Emil Kornsand, Georges Moleux, Rolland Tapley. Karl Zeise, and Bernard Zighera. VOX DL 320. 12-in. \$6.95.

Despite the current interest in the phonograph and music in general, it is only recently that we have had the first truly comprehensive series of discs devoted to the five families of musical instruments. Vox's Spatlight on Strings, the fourth release in this series, was preceded by recordings of percussion, brass, and keyboard instruments, and is the followed by a disc devoted to wood winds.

Following the lead of its distinguished predecessors, the string album surveys not only the modern orchestral instruments but a good many of their ancestors, including the very primitive musical bow with gourd, the rebec, the monstrous tromba marina, and the members of the viol family, with a side excursion to the guitar. mandolin, and banjo. Every instrument has been "spotlighted" with close-to microphone pickup in order to show off its individual tonal characteristics. An opportunity is even afforded to compare the sounds of a consort of viols and a string quartet playing the same music, as well as to make aural comparisons between several different makes of violin and between the curved and straight bow. As in the past. the musical level of the examples chosen has been of the highest.

In the light of so many virtues, it may seem ungrateful to cavil abour certain details. But the performers, assembled mostly from the ranks of the Boston Symphony Orchestra, are not always as technically accomplished or highly polished as those on the other discs in this series. Martin Hoherman, in particular, sounds quite illat-ease in playing the archlute, mandolin, and guitar. The same criticism applies to Rolland Tapley's handling of the old curved bow in an excerpt from the Bach Chaconne; the very raison d'être for this bow, namely, its ability to play whole chords without sweeping it across the four strings, is nor ar all clearly demonstrated.

Finally, R. D. Darrell's notes — expertly written, loaded with valuable information, delightfully peppered with bits of wit, and copiously illustrated — would have been rendered much more useful had they been arranged to follow exactly the course of the instruments in the order in which they are heard. On the other hand, Vox has made it easy to locate any desired instrument by means of a cardboard cue strip which may be placed on the spindle over the record. P.A.

JOSEPH SZIGETI: Recital

Ravel: Sonata for Violin and Piano. Hindemith: Sonata for Violin and Piano, No. 3, in E. Prokofiev: Sonata for Violin Solo, Op. 115; Five Melodies, for Violin and Piano, Op. 35.

Joseph Szigeti, violin; Carlo Bussotti, piano. COLUMBIA ML 5178. 12-in. \$3.98.

Szigeti and Bussotti toured last season with

Continued on page 88

STOKOWSKI:

AN ADVENTURE BEGAN SEPTEMBER 2, 1956

It's the date Leopold Stokowski began his first album for Capitol Records. He has completed a number of others since. Their titles may surprise you. Their sound undoubtedly will.

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Holst's dramatic, immensely colorful suite. THE PLANETS, has found its supreme interpreter. Stokowski conducts the Los Angeles Philharmonic Orchestra in a high fidelity showpiece.

In the soon-to-be-released LANDMARKS, Stokowski's greatest musical triumphs are newly recorded in a single "FDS" album. Here is his famed Finlandia, the Bach Toccata and Fugue and others.

In another future "FDS" album, Stokowski conducts the Houston Symphony Orchestra in Gliere's "Ilya Mourometz"...

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orchestra noted for colotful interpretations of just this type of music. The success of the enterprise is not in dispute. Even on fortissimos, the sound emerges relatively undistorted. The end of the *Coq d'Or* Suite, with all of its percussiveness, is nevertheless recorded with remarkable purity.

Overside, in *William Tell*, the balance between staccato French horns and seething violins has been maintained with admirable finesse. Although the dynamic range is not as great as in Mercury's *Fiesta*, the apparently distortionless crescendos are a delight to critical ears.

"Johnny Puleo and His Harmonica Gang." Audio Fidelity AFLP 1830.

The sound of the harmonica is not an unfamiliar one to those of us who can

hearken back to childhood days, but the sound of combined harmonicas à la Johnny Puleo carries no note of nostalgia. It is, indeed, practically a "new sound," created by careful microphone placement and instrumental balance. The hitherto incon-sequential "mouth organ" never sounded like this befnre. It is, of course, true that such electronic manipulations may place four rather small instruments on a dynamic par with a hundred-piece orchestea in your listening room, but this is not the kind of distortion that I find objectionable. The full-throated thythm instrument lends just the right amount of background for the tones of the mid-register and the brilliant but never squeaky overtones of the treble. A strong beat is omniptesent, though oever to the extent that it competes with the melodic line. The pressing is flawless, and the recording a delight to fi-tempered ears.



"Das ist Marschmusik." London 1W 91174.

This is a robust, if not altogether soothing, collection of German march music in massively rhythmic performances by the Musikkorps der Schutzpolizei, Berlin, directed by Heinz Winkel. The sound is bright and crisp and not the least fuzzy despite the rousing dynamics attending most band music. Highly enjoyable.

"Holiday in England," etc. Band of the Grenadier Guards. London LL 1621/3.

Very much the same recording techniques appear to have been used with the Grenadier Guards as with the German group nored above, although here the quality of sound is not quite so crisp and is characterized by a bit more hall resonance. To say the sound is clean would be apr, but a little more resounding bass would have lifted London's series of Grenadier Guards tecordings into the superlative category. Holiday in England (LL 1621) is a collection of lilting traditional British airs, in which the players are obviously quite at home. An Album of Military Band Music (LL 1622) presents the Grenadiers in four concert works: Gustav Holst's First Suite for Military Band, Frederick Rosse's incidental music for The Merchant of Venice, John Ansell's Three Irish Pictures, and Arthur Wood's Three Dale Dances. The sound is similar to that on LL 1621, but with somewhat more dynamic range. The last record of this series is labeled Hi Fi with the Grenadier Guards (LL 1623). Apparently the designation was chosen more with tegard to the choice of the music than the choice of recording technique, because this record is just as "hi-fi," and no more so, than the other rwo. However, the Light Cavalry Overture does, indeed, lend itself to showing off a hi-fi system.

"The American Scene." Baod of Her Majesty's Welsh Guards. VOX VX 25280.

Presenting Her Majesty's Welsh Guards in a program of American band music may seem incongruous, but at least it's neighborly. The hall sound in this record is unlike the Grenadiers—resonances are more pronounced here, but with a sweetening quality that seems pleasantly natural. Wide dynamics are also evident, and crisp but nonstrident highs fill in somewhat for a slight lack of bass response. The performances are straightforward, somewhat stiff by the standards of American bands most likely to play Louis Palange's Jazz Rbumba, but altogether enjoyable.

"Sour Kraut in Hi-Fi." The Guckenheimer Sour Kraut Band. RCA Victor LPM 1453.

This is strictly an all-in-fun disc, as just a few bands of either side will indicate. The Sour Kraut Band is aptly named, and the intentionally discordant strains and miscues may make a hit with some. Fidelity — so far as the recording is concerned — is excellent. The best part of the enterprise, to my mind, is the back of the jacker, which is a real side-splitter — almost worth the price of the disc by itself.

Continued on page 92

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THE SPOKEN WORD

BARNABY CONRAD: The Day Manolete Was Killed

Barnaby Conrad, writer and narrator. AUDIO FIDELITY AFLP 1831. 12-in. \$5.95.

The great Belmonte once said that the decline of the corrida began when it became illegal to throw bottles at bullfighters' heads. If so, then the law should be repealed forthwith, for tauromachy has fallen upon evil days. But like a rock of integrity in a decadent sea, one man managed to redeem the art for the brief ten years of his career. His name was Manuel Rodríguez, and he was known as Manuelte. Tall, gawky, painfully thin, he was five years old when his father, also a bullfighter, died in a poorhouse. The son, however, was fated to die rich — and young.

Manolete's style was lucid, classical, free of vulgarity. And he killed honestly, going in over the slashing horns, relentlessly exposing himself, his own purposeful courage adding dignity to the bull's end. It was in this very act that Manolete himself mer death at the small provincial city of Linares on August 27, 1947. A bull named Islero — now as celebrated as his victim, even to the extent of a statue in his honor — caught Manolete in the groin, twisted him on his horn, and killed him.

The material on this disc is largely drawn from the first chapter of Barnaby Contad's best-selling *Fiesta Brava*, and the present version was introduced last year on TV's *Omnibus*. Excellent use is made of sound effects — crowd noises, rolling *olés*, tinny bull ring pasodobles — in un-

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XH-1504 TCHAIKOVSKY: Aurora's Wedding — Ballets Russes Orchestra, Milan Horvath, cond. The original version as first performed by the Diaghilev troupe. Album in cludes four pages of brilliantly illustrated annotations,

XH-1505 RACHMANINOFF: Paganini (ballet score based on "Rhapsody on a Theme of Paganini"; choreography by Michael Fokine).

TCHAIKOVSKY: Francesca da Rimini. Ballets Russes Orchestra, Milan Horvath, cond. Magnificent album contains eight pages of illustrated annotations.

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AFTERNOON OF A FAUN-Dream music by Debussy, Faure, Franck. RG-119

VIVALDI: The Four Seasons. RG-120

GERSHWIN: Rhapsody in Blue, An American in Parls, Concerto in F. RG-123 BRAHMS: Alto Rhapsody, Symphony No. 4 in E minor. RG 137

RG 137 STRAUSS: Death and Transfiguration; LISZT: Les Preludes. G-154

ABSTRACTIONS -- A sampler of new releases. SH-1491

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derlining the dramatic narration. Juan Buckingham's guitar contributes a haunting nusical backdrop; ironically, the recurrent there is a folk melody called *El Vito*.

As on TV, Conrad has chosen to do the narration himself. This is unfortunate, because his gifts do not extend to this sphere. His enunciation lacks the crisp definition of the professional, and he fails to convey the full dramatic value of the script.

The point of view is frankly romantic. Manolete emerges somewhat larger than life and with a mantle of tragedy perhaps not wholly merired. But he was the greatest torero of our time or perhaps any time and no aficionado should be wirhout this tribute to his greatness. And even those to whom the corrida remains a senseless slaughter may perceive through this account of his death the elements of nobility that artistry can awaken in both man and bull.

HOWARD LAFAY

THE FUN MAKERS: An Evening with the Humorists

Gilbert: The Disagreeable Man; General John; The Sergeant's Song; The Modern Major General; When I Was a Lad. Catroll: Father William; The Walrus and the Carpenter. Goldsmith: Elegy on the Death of a Mad Dog. Anon.: Abdul A-Bul-Bul A-Mir. Calverley: Lore. Daly: Leesta Giorgio Washeenton. Thayer: Casey at the Bat. Lear: The Out and the Pussy Cat. Moote: A Visit from St. Nicholas. Browning: The Pied Piper of Hamelin.

A reading by Arnold Moss, R. E. Johnson: Jay Jostyn, and Alexander Scourby. DECCA DL 9042. 12-in. \$4.98.

The idea of producing a recorded anthology of humorous poetry, read by actors with eloquent and lively voices, is an excellent one. Unforrunately, Decca has not succeeded very well.

The problem is not with the reading. Most of them do rather well — with one outstanding exception: R. E. Johnson recites Casey at the Bat like a man who has agreed to recite only on the understanding that he will be allowed to read Poe's The Pit and the Pendulum, and, by God, he is going to read it like Poe even if he does have the audience breathless by the time Casey has dimmed the joy in Mudville.

The principle reason The Fun Makers is not much fun is Decca's selection of poems. They are entertaining, some even mildly funny, but as a whole they produce very few hearty laughs. R.H.H.,JR.

GERMAN LYRIC POETRY

A selection from the poetry of Goethe, Mörike, Heine, Rilke, Von Hofmannsthal, and Müller, read by Lotte Lehmann. CAEDMON TC 1072. 12-in. \$5.95.

The spoken lyrics in this collection are among those which Lotte Lehmann sang with unusual delicacy and distinction before she retired from the concert stage. They are also those which furnished the texts for some of the greatest songs by Schumann, Schubert, Wolf, and Richard Strauss. The highest tribute that could be paid Lotte Lehmann as a reader would be

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HIGH FIDELITY MAGAZINE



The Music Between

by Murray Schumach

FOR some 300 years, the zarzuela has been kicking — and been kicked around Spain and Spanish-speaking countries, altering its shape and style every few decades, rising and waning with the vagaries of rulers or national feeling. In recent years it has been fighting with song, orchestras, and castanets to burst through the musical bordets into North America. But somehow, despite our partiality toward Latin music, and especially the Iberian variety thereof, the zarzuela has never made much progress here. Currently, Montilla and London Records are making a big pitch to win recognition for this musical species.

Basically, the zarzuela is a sort of cross hetween opeta and operetta, with a Spanish flavor so strong that folk music sometimes seems one of its prime ingredients. Threaded through it are strands of Rossini and Bizet influence — the latter so noticeable at times that one half expects to hear an aria from *Carmen* or *The Pearl Fishers*. Written for good singers, zarzuelas have an indifference to plot that stems from their informal origins.

According to Fernando Montilla, head of Montilla Records and the man who has proselytized more than anyone I know for the zarzuela, this musical form took its name from the Spanish grass zarza on which the song-and-dance pieces were first performed early in the 1600s. Thompson's International Cyclopedia of Music and Musicians points out that, during the reign of Philip IV, there were Fiestas de Zarzuela at the royal suburban retreat of La Zarzuela outside Madrid. The zarzuela had a tough time during the eighteenth century; but in the nineteenth century, after the overthrow of Napoleon, Spanish flaunted nationalism raised high once more the musical banner of this indigenous form and began turning zarzuelas out in two sizes - grande and chico. Today, ironically, the zarzuela is supported more on records than on stage in Spain as well as in Latin America. One reason probably is that the recorded performances are generally better than those in the local theaters.

Though the zarzuela has charm, I would strongly advise against listening to them in large doses — for then the charm begios to weat thin. As a starter I would suggest trying one among the following. Anyone partial to Bizet should like La Tempranica (Montilla FM 49), by Jeronimo Jimenez, a work rich in arias and choral pieces. El Asombro de Damasco, by Pablo Luna (Montilla FM 50), catries the operatic flavor even unto the harp introduction for the heroine's atia. Those looking for folk music will find ir in La del Soto del Parral, by Soutullo y Vert (Montilla FM 68). The bargain conscious should be alerted to Montilla FM 67, which has a zarzuela on each side — Luisa Førnanda, by Frederico Moreno Torrobá, and El Berberillo de Lavapiés, by Ansenjo Barbiero. All of the above have a well-matched pair in Dolores Perez, soprano, and Luis Sagi-Vela, baritone, supported by the very proficient Orquesta de Cámera de Madrid, with Enrique Navarro conducting in most of them.

My favorite among the London Records batch of zarzuelas is La Dolorosa, by José Lorente and José Serrano (XLL 1483). The elegiac beauty of the arias is captured beautifully and simply by Ana Maria Iriarte, mezzo, and she is well supported by the Gran Orquesta Sinfonica, conducted by the Gran Orquesta Sinfonica, conducted by Ataulfo Argenta. An example of the zarzuela composer's love of peasantlike dances can be found in La Calesera (London XLL 1616), by Francisco Alonso. Pilar Lorengar, the soprano in this one, flavorfully indulges in the usual Spanish fondness for trills and flourishes.

TURNING to our own musical theater for a moment, we have an original-cast recording of *New Girl in Town* (RCA Victor LOC t027), featuring Gwen Vetdon and Thelma Ritter. Miss Vetdon, who has honestly disparaged her own singing talent, has to be seen to be believed. On record this gifted woman, dependent on her voice alone, is like a slugger using a broomstick for a bat. Bob Mertill, who did the lytics and music, has caught the mood of 1900, but is short on beautiful melody or exciting lyrics.

Pop music goes from swing to rock in roll, but a steady market remains for placid dance bands. One such ensemble with a nice balance of piano, violins, and drums is featured on *Lovers in Paris* (London LL 1643): Monia Litet and his or chestra. Another smooth orchestra with a sure beat is Percy Faith's, whose latest is *Adventure in the Sun* (Columbia CL IO10). Ted Nash's orchestra is helped by good solo work on alto flute, tenor



Come rain, come shine, come Carroll.

sax, and alto sax, in Star Eyes, the Artistry of Ted Nash (Columbia CL 989). And Freddy Martin, still a solid workman with orchestrations that are aloof from the influence of bop, can be heard on RCA Victor's Freddy Martin at the Cocoanut Grove (LPM 1414).

Diahann Carroll, whose pop singing has received much attention in recent months, has finally been recorded on a long-playing record called Diahann Carroll Sings Harold Arlen Songs (RCA Victor LPM 1467). Despite a poor orchestra — Ralph Burns's — she shows good taste with music and lyrics. She is especially good in Down with Lone, which sounds so deceptively easy but really requires the talents of an accomplished rhythm singer, and in Come Rain or Come Shine she shows just the right drive. Because of its lightness and sweetness Miss Carroll's lyric soprano is best suited, however, to ballads.

ORDINARILY, to mention Erich Kunz beside pop singers would be unfair both to him and pop singing. But when Kunz turns his opera-trained voice to Viennese songs, he makes a shambles of nearly all previous attempts to commercialize on Continental music. In Erich Kunz Sings Viennd's Favorite Songs (Angel 65054), his technique and artistry, his apparent spontaneity, his acting talent, his natural feeling for the songs of his native city combine to make a magnificent record. Another record about Vienna impressed me very favorably. It is Vienna by Night (Monitor 510), featuring the charming artist who bills herself merely as Liane. On this disc Liane shows that a European blues singer need not talk her way through a song. Liane does not have a big voice, but she gives dignity and honest feeling to songs and lyrics. Sandwiched between her songs, accompanied resourcefully by the Michael Danziger Bar Trio, are pleasant interludes played by the Vienna Waltz Orchestra. To wind up this month's Viennese installment there is Two Hearts in Three-Four Time (London LL 1555), with Robert Stolz conducting the Vienna Symphony Orchestra. It's a pleasure to hear a good, well-balanced orchestra handle this sort of music.

For years, I, like many others, have suffered from gypsy music played by violinists who drag it down with sugary tones. Now I know the fault was with the violinists. For on a record called Gypsy*Moods* (Epic LN 3363), Bela Babai and a small orchestra show how wonderful gypsy music can be. His tones have warmth without schmaltz and spirit without sloppiness. His *Hora* has lightness as well as rhythm, and his passion is not without humor. Mr. Babai sounds like a man having a good time.

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to say that, listening to her read, one does not miss the music. I cannot go quite that far. I can say, however, that her rich and sensitive interpretation of the poems recalls every nuance of the melodies. The voice itself is something of a surprise; instead of the expected soprano, it is a warm and sonorous mezzo with dramatic, but never theatricalized, overtones.

The choice of material is equally noteworthy. It ranges (in the Goethe selection) from the familiar longing of Kennst du das Land to the arch of badinage of Gebeimes and the choice of the less wellknown of the paired Wanderers Nachilied: and (in the Mörike group) from the grave resignation of Verborgenbeit to the nudging mockery of Nimmersatte Liebe and the half-innocent, half-suggestive Begegnung. The Heine poems present the hardest test. These bittersweet lyrics, so casual yet so penetrating, so deceptively colloquial with a vocabulary which created a new poetic idiom, can be ruined by a single false inflection or the least overemphasis. Mme. Lehmann-escapes the dangers. Her renderings are as valid as they are varied: delightfully delicate in Im wunderschönen Monat Mai, sad but not 100 sentimental in Am leuchtenden Sommermorgen, darkly impassioned in Ich grolle micht, and bitterly ironic in Die alten bösen Lieder.

There are, of course, reservations. I myself would gladly exchange the monologues from *Der Rosenkavalier* for more of Rilke, of whom there is but a single example; and I do not believe that, although Schubert made an exquisite cycle of the *Winterreise*, the pleasant little lyrics of Wilhelm Müller



measure up to the other poems. A minor quibble concerns Miss Lehmann's inclination to follow the text as given in the musical settings (Schumann's, for instance) rather than those of the poet. Nevertheless, this is an outstanding album, and one which demands a successor. LOUIS UNTERMEYER

THE HEART SPEAKS: Lyrics of Love

A selection of English love lyrics, read by Arnold Moss and R. E. Johnson, DECCA DL 9043, 12-in, \$4.98.

If it is indeed love that makes the world go round, one can hardly cavil at the notion that it is love which makes a platter spin, especially when the latter is decked out in a jacket replete with cupids and three long-stemmed roses wet with dew. Here "the heart speaks," in all its customary accents except perhaps that of erotic passion, and expresses the tender sentiments of some twenty-five English poets from the sixteenth century to Housman including, along the way, Burns, Byron, Wordsworth, Christina Rossetti, and E. B. Browning. Edgar Allan Poe and Henry Wadsworth Longfellow (the latter with *The Children's Hour* expression of devotion to "the patter of little feet") somehow gain access to this assemblage too.

Oddly, in view of the concentration on a single theme, this collection of love lyrics manages not to cloy. Perhaps the saving grace of humor in the little verses of Herrick and Suckling alleviates the too sweet, too sad emotion. Perhaps the recognition that *The Shropshire Lad* is only incidentally about fair youth's romantic dis:llusionments gives the selections from that sequence an added interest. In short, taken singly these are good poems in the mainstream of English poetic convention and they are given intelligent readings. J.G.

FEDERICO GARCIA LORCA: "Poesia y Drama de Lorca"

Selections from Lorca's poetry and drama, read by María Douglas and Raúl Dantés. CAEDMON TC 1067. 12-in. \$5.95.

When Federico García Lorca was killed by Franco's followers at the outbreak of the Spanish Civil War, he was — though still a relatively young man of thirry-seven — a poet of imposing teputation. As early as 1921 his flaming verse had won him a measure of fame throughout the Spanishspeaking world, and the publication of his renowned Romancero Gitano in 1928 firmly established his pre-eminence.

Lorca's lyricism is peculiarly, richly Spanish. And the imagery that strikes verbal fire, the rhythms that shape his majestic music bear alike the imprint of his beloved Andalusia. Much of Lorca's early poetry echoes the flamenco form called *cante jondo*, or deep song; in fact, this "dark root of the cry" runs like a somber thread throughout his work. Intertwined with it is a neat-obsession with death and the eternal Spanish need to defy it, indeed to dominate it.

Caedmon's well-chosen selections lead off with an excellently played scene (rom his drama, Bodas de Sangre (Blood Wedding), a brooding, vengeance-ridden, sex-tidden portrayal of Spain's provincial gentry. The remainder of the record comprises poems from three of Lorca's great books: the youthful Libro de Poemas, Romancero Gitano, and the later, tormented Poeta en Nueva York. The two readers, María Douglas and Raúl Dantés, manage to preserve both the stately cadences and emotional tension of the poems; and Señor Dantés, in particular, deserves commen-dation for his command of the verbal pyrotechnics that highlight the smashing Oda a Walt Whitman. Diction throughout is clear, with each word accorded full value ---so much so that even rudimentary Spanish goes a long way.

Anyone with an interest in Spanish poetry or in the language itself should find this a highly rewarding disc.

HOWARD LAFAY

FOLK MUSIC

by Edward L. Randal

AS FLAMENCO CONTINUES to be well (and copiously) served by labels large and small, Decca moves into the spotlight with Flamenco (DL 9925), featuring Carmen Amaya and her company. A gypsy born in Spain, Amaya's professional career dates from her early childhood. Some twenty years ago she hit the lucrative westward trail, became a favorite of American theatergoers, and has been returning periodically ever since. Faced with the necessity of appealing to international and largely uninitiated - audiences, she has chosen to make certain stylistic sacrifices in the interests of rheatricality. Nonetheless, at its core, her art remains pure gypsy. This impeccably engineered disc communicates all the blazing excitement of a true cuadro flamenco. Handclaps, explosive olés, and the flash of castanets provide a vivid aural backdrop to Amaya's songs and dances. She is further aberred by the gifted guitar of the Navarrese virtuoso Sabicas --also featured in several arresting solos.

Sabicas, in turn, is the star of Elektra's Sabicas, Vol. 11 (EKL 121). A glance at his program, which includes titles as uplikely as Rimsky-Korsakov's Capriccio espagnol, brings misgivings. However, Sabicas is an artist of formidable skill; both his technical control and musical taste are unerring. Elektra has contrived close, ex-tremely clean sound. In fact, the "tinkling triangle" school of audiophiles will be delighted to learn that in softer passages the guitarist's breathing is clearly audible.

Monitor's Songs and Dances of the Ukraine, Vol. 1 (MF 301) contains a wealth of melody in the full-blown Ukrainian tradition. The artists, all top drawer, range from soprano soloists to children's chorus. A few incongruous notes are sounded, as when the booming bass of Boris Gmirya sings the plaint of an "enamored swain" with an effect rather like Boris Christoff singing Teddy Bear. But the sound is well above the erstwhile Russian standard, and in sum chalk up another winner for Monitor.

Folk singer Bob Gibson offers a generous selection of ballads on Riverside's

the sixteen ballads represented are staples -Shenandoab, Blue Tail Fly, Hush Little Baby, John Henry - but all would rank at or near the top of anybody's list. Along with this felicity of choice, the disc is

blessed with the big, relaxed barirone of Milt Okun. This New Yorker has an easy, informal style that does full justice to the songs while preserving their essential lack of pretention. The engineers have provided exceptionally realistic sound. Highly recommended.

I Come for to Sing (RLP 12-806). Gib-

son's yourh is at once his strength and his

weakness. While an undeniable freshness

and exuberance mark his way with a song,

there is also an indifference to nuance.

Anyone seeking an outstanding one-disc anthology of the American folk ballad

should forthwith investigate America's Best

Loved Folk Songs (Baron BL 1203). All

The sound is excellent.

Admirers of ethnic music - and mushroom growers eager to promote their product - will find an arresting item in Folkways' Musbroom Ceremony of the Mazatec Indians of Mexico (FR 8975). Through eating mushrooms in conjunction with certain incantations, a woman of the tribe attempts to establish communication with the divine. This record preserves her chants importuning the deity. The sound, for a field recording, is unusually clear. However, the appeal of this disc is a pretty limited one.

Capitol has rereleased Folk Songs of the Old World, the Roger Wagner Chorale's noteworthy album of European ballads, on two separate discs. Volume One (P 8387) covers the British Isles, while Volume Two (P 8388) deals with Western Europe. Westminster has done the same with its two-record Music of India, fearuring Dr. Gaurang Yodh on sitar and Dinesh Patel on tabla (XWN 18258/9).

THE BEST OF JAZZ by John S. Wilson

TWO of the most fascinating of recent jazz releases contain more talk than music. In fact, one of them, Coleman Hawkins: A Documentary (Riverside 12-117/118. Two 12-in. \$9.96) carries not a single note of music. It is all talk by the first great jazz tenor saxophonist, interspersed with questions from a pair of interviewers - talk about Hawkins' early days, about the Fletcher Henderson band ("Fletcher's band got too sophisticated it should have stayed a stompin' band and stomped all bands out of existence"), about his six years in Europe, about the recording of Body and Soul which has dogged him ever since he made it in 1939, about modern jazz, even about rock 'n' roll.

It is somewhat in the "life and times" vein adopted by Alan Lomax in the celebrated series of recordings he made for the Library of Congress with Jelly Roll Morton. The main difference between the Hawkins and Morton interviews lies in the lack of musical illustration in the Hawkins set. There are times - particularly in the discussion of the Henderson band or his early "modern" sessions with Theloni- 236 West 55th Street, New York 19, N.Y.



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van Remoortel-hailed by critics the world over! And now...van Remoortel plays Franck-a triumph of the Belgian spirit! FRANCK: SYMPHONY, D MINOR Pro Musica Symphony, Vienna – Edouard van Remoortel, Conductor PL 10.360

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ous Monk — when the situation begs for musical amplification.

Such musical illustrations are one of the several merits of Big Bill Broonzy Story (Folkways FG 3586. 12-in. \$5.95), wherein Broonzy, a magnificently untrammeled blues singer, explains various kinds of blues and his own association with the blues. Broonzy's forthright and lucid discussion is heightened by his singing some of the best he has put on discs of several blues as well as two songs well removed from his normal métier, the old music hall favorite, Bill Bailey, and This Train, a gospel song. As on an earlier and equally commendable disc (Folkways 2315) on which Broonzy and Pete Seeger discussed the relationship between the blues and country songs. Studs Turkel serves as an unobtrusive but provocative interviewer.

The relaxing sympathy which seems to exist between Turkel and Broonzy is missing in the Hawkins interview, a lack that brings the conversation to a disconcerting halt at times. The two interviewers, Bill Grauer and Paul Bacon, are unaccountably off-mike and this, added to their diffident way of talking, makes many of their questions almost inaudible. The tone is that of an interview with prepared questions rather than a guided conversation, and Hawkins is occasionally stopped cold by some apparently itrelevant change of direction. Usually, though, he manages to work up steam on practically any subject, and once he gets going his talk is warm, informative, sometimes colorful. His exposition is dry-cleaned compared to Morton's, but his opinions are bluntly honest and his recollections cover territory that will be fascinating to any jazz fan, no matter what the school tie.

Riverside has followed up its Hawkins documentary with a sampling of his current work, The Hawk Flies High (Riverside 12-233. 12-in. \$4.98). The enormous, muscular tone and the assertive, lunging attack that gained him his first fame with the Henderson band and made him the most influential of the tenor saxophonists of the late 1920s and most of the 1930s, are still present. Today there is more assurance, more range. more adventurousness in his work, but it is all based on the same essential elements. On this disc he shows, in his solos, some stirring samples of his lyricism; in the ensembles he roars like the king of the pack he has always been. He has the assistance of J. J. Johnson, playing broader, guttier trombone than he usually does, trumpeter Idress Sulicman in something less than his best form, and a rhythm section that could scarcely be improved upon: Hank Jones, Barry Galbraith, Oscar Pettiford, and Jo lones.

Revived Influence: For almost two decades, Coleman Hawkins has been in the awkward position of being the outdated elder statesman of the tenor saxophone, respected but no longer emulated. During this time Lester Young has been the root source for tenor men until the very sudden and recent ascendance of Sonny Rollins a man quite obviously from the Hawkins school. Rollins was first noticed as part of what has been classified as the "hard bop" school, but he has been outgrowing that



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HIGH FIDELITY MAGAZINE



HOLY HOAX

TIME MAGAZINE, May 6th, says, "One of the most elaborate of modern musical hoaxes in a reverent and earsplitting performance." Originally hailed as a newly discovered work of Moulinie, Martin finally confessed it was his own spare-time creation. R. P. Emile Martin: Sacred Mass For The Kings of France. Concord #4001. L.P. 12". \$4.98.

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NUCLEAR PRODUCTS CO. 10173 E. RUSH ST. • EL MONTE, 1, CALIF. with remarkable rapidity. In Way Out West (Contemporary 3530. 12-in. \$4.98), the best recording display he has had yet, Rollins plays in a tone harder than Hawkins', but with the same bully-boy swagger that constantly invigorates Hawkins' work. With only bassist Ray Brown and drummer Shelly Manne to accompany him, Rollins reveals a probing imagination in covering two sides of an LP with ideas which are almost always intriguing, and which he works out with a sense of steadily unfolding excitement. There are two originals and such atmospheric standards as Wagon Wheels and I'm an Old Cowhand.

Two of the most successful of the Young tenor disciples, Zoot Sims and Al Cohn, have turned out a trunkful of discs during the past couple of years, notable, at the very least, for the determinedly swinging quality of their playing. They join forces as the Al Cohn-Zoot Sims Sextet on Prom A to 7. (RCA Victor LPM 1282. 12-in. \$3.98), but somehow in this case one plus one fails to add up to two. Neither Cohn's almost undiluted Young style nor Sims's Young-slightly-colored-by-Hawkins catches fire in these rather mechanical performances. Pianist Dave McKenna is the only one who manages to mine any gold in them. Sims is closer to par on Zuot Sims Goes to Jazzville (Dawn 1115. 12-in. \$3.98). Here his tenor slides along with such grace that one is only subconsciously aware of the intensely jumping quality of his playing.

The Basic Getz: Stan Getz, who was the only influential tenor saxophonist aside from Lester Young during the un-Hawkins years, has often stretched some of his stylistic tricks too far, but on An Intimate Portrait (American Recording Society 428. 12-in. By Subscription), recorded in Sweden with a thythin section which includes the excellent pianist Bengt Hallberg, he gets back to basic things with a strong feeling of propulsion and a properly meaningful line of development. Hallberg swings cleanly all the way, and Getz shows how much relaxed jazz he can draw from a ballad with a version of Ghoss of a Chance that is one of the best things he has put on discs.

Like Zoot Sims, Bill Perkins is essentially a Young descendant who has absorbed suggestions of Hawkins. He shows Young's floating line and Hawkins' strength time and time again in the course of Just Friends (Pacific Jazz M 401, 12in, \$4.98), a balanced and thoughtful program of quiet jazz played by two groups. One pairs Perkins with another Youngbred tenor, Richic Kamuca; the other with the altoist, Art Pepper, an ertatic performer in brilliant form at this session.

Pepper appears to be dispetling the shadow of Charlie Parker that has hung over him, as it has over most altoists who have come up during the past ten years. Phil Woods, in *Phil and Quill* (RCA Victor LPM 1284, 12-in. \$3.98), gives evidence that he, too, is becoming a musical personality, but his alto-playing partner on this disc, Gene Quill, is still strongly derivative. Their joint efforts are largely dissipated by an overdose of uninspiring original compositions.

But there is more to this month's jazz output than saxophonists. The Modern



Jazz Quartes (Atlantic 1265. 12-in. \$4.98) is that group's most completely satisfying disc. The quarter deals with basic materials this time --- standard ballads such as Yesterdays and Between the Devil and the Deep Blue Sea, and modern jazz standards such as Night in Tunisia and Bags' Groove. The foursome convincingly dispels the charge that it cannot swing. Few recorded performances swing as vigorously as Baden-Baden or Between the Devil do here, even though the scene is set for the latter with typical MJQ delicacy. Milt Jackson, as usual, carries the bulk of the solo work on vibes. John Lewis' dark and earthy plano plays a more prominent role than it has on past MJQ discs, making clear how much the strength of this group depends on Lewis.

Togetherness: An encouraging aspect of the current jazz scene is the number of groups which are managing to stay together us units so there is at least the possibility that they may be able to achieve some of the group feeling that has meant so much to the Modern Jazz Quartet. The Jazz Lab Quinter, led by alto saxophonist Gigi Gryce, is currently making a run for these roses. The group has noticeable strengths and weaknesses, emphasized on both Gigi Gryce (Riverside 12-229. 12in. \$4.98) and Jazz Lab (Columbia CL 998. 12-in. \$3.98). Their strength lies in the arranging talents of Gryce and trumpeter Donald Byrd who have concorred some fascinating ensemble leaping off points for both discs. Their major weakness is their insistence on moving from intriguing ensembles to long, wearing solos, emotionally often out of character with the introductory matter. On several of the selections on the Columbia disc, the quintet is expanded to an or-



chestra and there is some attempt to provide the soloisrs with support. This helps a bit but rarely enough to remove the cold, stone-faced quality from the solos of Gryce and Byrd. The Jazz Messengers, a group led by drummer Art Blakey, faces the same problems on *Drum Suite* (Columbia CL 1002, 12-in. \$3.98) although Blakey keeps things a good deal warmer in back of his soloists than does the Jazz Lab's Arthur Taylor.

Trombonist Kai Winding, having tried a two-trombone group with J. J. Johnson and a trombone octet on his own, has now settled down to leading a group made up of four trombones and thythm section. On Trombone Pangrama (Columbia CL 999. 12-in. \$3.98), this proves to be a warm and flexible ensemble, capable of lusty shouting on The Preacher and gracefully shaded delicacy on Come Rain or Come Shine. The disc contains two long productions, one a nostalgic rundown of popular trombone styles done with a surprising amount of good humor, the other a rewrite in cool jargon of Frankie and Johnny, loaded with appropriately wailing trombones but bowed down by an agonizingly arch script. The French-horn-saxophone team of Julius Warkins and Charlie Rouse lead a group, which they call Les Modes, through some more of their exotic mood pieces on Mood in Scarles (Dawn 1117. 12-in. \$3.98), among them a magnificently evocative performance of Antumn Leaves by Watkins. Those, if any, who have been demanding the admittance of the organo to jazz circles will welcome Rocky Mountain Jazz (Golden Crest 3018. 12-in. \$3.98) by Denver's Jomar Dagran Quartet (tenor and baritone saxopbones, organo, drums), a crude but lusry group which has some kinship to the old ragged and rugged Harlem jump bands. Ron Washington plays a strong tenor, but the limited voicing of the group (the organo is strictly a cushion) becomes monotonous. Oscar Peterson, whose trio is another group which works together consistently, is apparently determined to become the Slam Stewart of the piano. On The Oscar Peter-son Trio at the Stratford Shakespearcan Pestivul (Verve 8024. 12-in. \$4.95), recorded at the Ontario festival, he effectively destroys his solos by drowning them in raucous nasal keening and the stolid tap-dance effect of his pounding feet.

Big Bands: For recording purposes only. vibist Terry Gibbs has been presented with a full hand that plays with the kind of hungry, driving shout that rarely comes out of a well-fed studio band. Imaginative arrangements and excellent recording round out the happy situation on Swingin' with Terry Gibbs (EmAscy 36103. 12 in. \$3.98). A Canadian band, led by clasinetist Phil Nimmons, shows much of this same spark, particularly in its ensemble work, on *The Canadian Scene* (Verve 8025, r2-in, \$4.98). Charlie Barner's 1956 nonstudio band has the customary Barnet punch and blast on four numbers on Lonely Street (Verve 2040, 12-in. \$3.98), but the rest have the diluted sound of a string section. The featured performers all the way are Dave Wells, playing an expressive bass trumpet, and Barnet, whose talents on the soprano saxophone continue to grow.

by R. D. DARRELL

The Tape Deck



Note: As usual, all tapes reviewed are 7.5 ips and — unless specifically noted as stereo — are 2-track single-channel recordings. The symbol • • prefixed to a review indicates stereo tape. If a date in parentheses is appended to the review, it refers to the issue of HIGH FIDELITY in which the corresponding disc review appeared.

• • LEOPOLD STOKOWSKI: "The Orchestra"

Symphony Orchestra, Leopold Stokowski, cond.

CAPITOL ZH 8. 7-in. \$16.95.

The standout item in Capitol's 13-reel stereo-rape debut is nearly as impressive visually as it is aurally. For the first time a tape has been packaged in the grand manner, complete with fancily illustrated 24-page booklet and LP-sized album in which the little teel box nestles like an elaborately set jewel. And for good measure, there is an imprinted gold label sticker which serves also as a seal for the reel itself. But once set spinning, it is strictly the tape's sonic splendors which predominate with the dramatic power and coruscating coloring that have been Stokowski's lifelong ideal, but which even his spellbindiog symphonic mastery has never capnired before as vividly and completely in unfalsified, undiluted reproduced sound.

In its LP form (simultaneously re-leased as SAL 8385), this sonic textbook of orchestral choir and full-score techniques is likely to prove as sensational a "demonstration" recording as the first Capitol Study in High Fidelity, since it exploits the post-1953 advances in eogineering over sull wider frequency, dynamic, and timbre ranges. The main sections of the orchestra are first heard separately: brass in Dukas's Péri Fanfare; strings in Barber's Adagio; wood winds in Richard Strauss's Gavone from Suite No. 1, in B flat, Op. 4; percussion in the opening movement of Harold Farberman's Evolution. Then larger combinations are demonstrated: the Schurzo alla Marcia from Vaughan Williams' Eighth Symphony, March from Persichenti's Divertimento, Op. 42 for Band, and pizzicato Scherzo from Tchaikovsky's Fourth Symphony. Finally we hear the whole lavish orchestral labric in the last two movements (Hut of Baha Yaga and Great Gate of Kiev) from the Mussorgsky-Ravel Pictures from an exhibition. Yet surely it is only the present stereo versions that can bring into one's

home with almost overwhelming realism the breadth, incandescence, and razor-edged bite of the original performances — and the crystalline, if not exceptionally reverberant, acoustics of the New York City Riverside Plaza Ballroom in which they were recorded (quite without, unless my ears are completely bewitched, any abnormal microphoning or other "gimmicking").

I have some reservations about the acstheric desirability of such ultrabrilliancy for repeated home listening (for which the blinding superclarity here seems less well suited than the warmer translucency of the best previous stereo tapings), and even about the advisability of so overpoweringly realistic an evocation of a symphony orchestra in normal-sized living rooms. In particular, I wonder dubiously how many smaller stereo playback systems - and small speakers - will be able to cope with so fantastically extended a frequency spectrum and such literally solid (well-nigh palpable indeed) sonic dimensionality. But I have no reservations at all about the authenticity of the triumph with which the musical pioneer of stereophony and Old Wizard of Symphonic Sonorities has here crowned his long recording career.



Heifetz: incomparable stylistic elegance.

• • BEETHOVEN: Concerto for Violin and Orchestra, in D, Op. 61

Jascha Heiferz, violin; Boston Symphony Orchestra, Charles Munch, cond. RCA VICTOR PCS 24. 7-in. \$16.95.

Other performances (including Heifetz's own of 1940 with Toscanini) have been more heroic or more romantic, but none has been better integrated or displayed

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comparable stylistic elegance. And while perhaps a few other recordings may approach the purity of the LP version of this one (1.M 1992), certainly none can come even close to the sonic buoyancy, warmth, and Symphony-Hall authenticity of the present stereo taping. In short, there is but one word for the co-operative achievement realized here: magistral. (Dec. 1956)

• • BEETHOVEN: Symphonies: No. 2, in D, Op. 36; No. 4, in B flat, Op. 60

Frankfurt Opera Orchestra, Carl Bamberger and Walter Goehr, conds. CONCERT HALL CHT/BN 35-6. Two 7-in. \$11.95 each.

The delicious humor and gusto which predominantly endear these symphonies to most of us today are missing from these grimly serious, strenuously energetic readings and heavy-handed orchestral playing. Yer while neither symphony bears comparison with the top-ranking microgroove versions, the combination of a highly reverberant hall and stereo recording lends a somber glow to the dark sonorities as well as adding tremendous weight to both conductors' heavy drive.

• • BUXTEHUDE: Organ Works

Alf Linder, organ.

SONOTAPE SWB 8022. 7-10. \$11.95.

Stereo listeners already have had one opportunity (in an earlier Bachian Soco-tape by Weinrich) of hearing the wondrously piquant baroque tonal qualities of the Varfrukytka organ in Skänninge, Sweden; while Buxtehude connoisseurs already have welcomed the first four of Linder's ten-volume complete-works series in progress un Westminster LPs. Yet neither Weinrich's tauter playing and severer registrations nor the single-channel recordings of Linder's more expressively nuanced performances approached the sonic expansiveness and frescolike coloring achieved here. The music itself (not yet represented on LP) also should be a revelatory delight. For here Buxtchude is a youthfully extroverted individualist with a boldly rhapsodic and virtuosic flair evident in the spirited Prelude and Pugue in C (which ventures on an almost jazzical jaunuiness at times), breadly exultant chorale fantasia "Nun frent euch," and showily episodic Toccase in D minor.

Continued on next page



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TAPE DECK

Continued from preceding page

 HAYDN: Symphonies: No. 100, in G ("Military"); No. 101, in D ("Clock")

Vienna State Opera (Volksoper) Orchestra. Mogens Wøldike, cond.

VANGUARD VRT 3002-3. Two 7-in. \$11.95 each.

For its first stereo-tape list Vanguard quite naturally leads with its aces: the late Haydn symphonies by Wøldike. which on their recent microgroove release were deservedly acclaimed both as the most discerning readings to date and as superb examples of nonexaggerated high fidelity. But if the present two works seemed unsurpassable on the VRS 492 disc, they still can reveal new and enrichened attractions in stereo sound -although it's certain that no one except a fanatical technician is likely to appreciate fully the engineering skill and restraint demonstrated here while he is first spellbound by the felicities of these well-nigh flawless performances, to say nothing of the imaginative depths freshly revealed in what he had assumed to be thoroughly familiar music.

Here is the persuasive answer of high fidelity's "quieter virtues" to the charge of sensationalism based on the famous Scherchen LPs of the Military Symphony. I relished those electrifying recordings mightily, but not even the newer one is cal-culated for living with day in and day out (as Wøldike's is), not is it as authentic in either natural concert-hall sound or in the jen d'espris effect which Havdn surely intended by his introduction of "Turkish" percussion. Here the ceremonial "Turkish music," for all its crisp brilliance. is equably blended — as well as contrasted — with the orthodox classical symphonic sonorities. Both here and in the less obviously original Clock the extraordinary Danish conductor incidentally refutes the old charge that musicology is necessarily synonymous with dullness: for all his insistence on unembellished Ur-texts and on scrupulous adherence to these scores, he is as vivaciously faithful to their buoyant animating spirit as he is to their precise letter. (May 1957)

• • LISZT: Mepbisto Waltz

Chicago Symphony Orchestra, Fritz Reiner. cond.

RCA VICTOR ACS 25. 7-in. \$6.95.

Reiner uses the acoustical breadth of his well-balanced stereo recording mainly as a larger canvas for his romantically lavish tone painting. But he concentrates more attention on the languishing, love-sick Faust than on the devilish Mephisto, and I miss much of the savage force and chthonian darkness which should primarily characterize this Lisztian dramatic episode. Originally issued as part of an LP miscellany, LM 1999, the Mepbisio Waltz alone seems to require an abnormally small amount of tape, but this is partly a visual delusion resulting from the use of the thinner one-mil tape-base material employed uniformly in all current RCA Victor tape releases. The actual playing time is nearly eleven minutes. (Feb. 1957)

• • MENDELSSOHN: Symphony No. 4, in A, Op. 90 ("Italian")

Pro Musica Symphony (Vienna), Eduard van Remoortel, cond.

PHONOTAPES-SONORE \$ 705. 7-in. \$11.95.

As one of probably many die-hards who have clung to the belief that the longsince technically antiquated Koussevitzky version of the Italian Symphony never could be matched, even Van Remoortel's delectably blithe and more youthfully exuberant reading cannot by itself wholly change my mind. But even although it lacks Bostonian finesse (and comparably silken-toned strings in particular), his orchestra plays with zestful lyricism, and the exhilarating open-air transparency of the stereo recording convinces me that no previous version has ever coped adequately with the thistledown lightness of Mendelssohn's magical score.

• •MOZART: Symphony No. 39, in E flat, K. 543

Netherlands Philharmonic Orchestra, Walter Goehr, cond.

CONCERT HALL CHT/BN 26. 7-in. \$11.95.

MOZART: Symphonies: No. 39, in E fles, K. 543; No. 40, in G minor, K. 550

Chicago Symphony Orchestra, Fritz Reiner, cond.

RCA VICTOR CC 28. 7-in. \$10.95.

There are so many facets to each of the great last three Mozart symphonies that a unanimously acceptable definitive performance of any of these complex masterpieces is a humanly unobtainable ideal. No. 39, in particular, demands a reconciliation of strength and delicacy which baffles most recording conductors with or without stereo support — and neither Goehr nor Reiner is any exception. Goehr is boldly vigorous, but often overemphatic to my taste. as well as lacking in the Mozartean graces and handicapped by an otchestra incapable of subtle nuances in timbre. Yet I must admit that the driving energy here, and especially its full-blooded embodiment in stereo sound, makes for some great dramatic moments. (Oct. 1956)

Without the advantages of stereo, and despite that of a far superior orchestra, Reiner fares worse: partly because his insights into Mozartean lyricism and piquancy are not projected with anything approach. ing Goehr's forcefulness; mainly because his nervously mannered Andante con moto jars so unpleasantly with his concept of the work as a whole. Interpretatively, his No. 40 is notably better integrated and - except for occasional moments of overintensity - far more satisfactory. But on hearing it in this single-channel taping I can better understand the general criticism of the somewhat anemic and edgy recording of the disc album (LM 6035) in which it first appeared. I am sure that in stereo the recorded sound of both these symphonics might well be as satisfactory as that of the stereo taping of the companion Jupiter, but there's no denying its thinness here. (Feb. 1956)

HIGH FIDELITY MAGAZINE

• • RAVEL: Ma Mère l'Oye; Introduction and Allegro, in G flat

Pasdeloup Orchestra (in Ma Mère); Paris Chamber Orchestra (in Introduction and Allegro); Louis Martin, cond. CONCERT HALL CHT/BN 24. 7-in. \$11.95.

How Ravel would have exulted in stereo sound's supreme plasticity as a medium for his tonal sculpturings! Martin's sympathetic performances (not yet available on LP) of the present works may fall a shade short of the most polished and eloquent ones we have had on records eatlier, but in faithfulness to the matchless scorings themselves these stereo tapings are the truly definitive sonic reproductions - the only ones to enchant the nonconcert-hall listener with a full measure of the music's iridescent loveliness. For the very first time in home reproduction, the virtuoso harp part in the Introduction and Allegro (superbly played here by Marie-Claire Jamet) is captured with all its kaleidoscopic coloring and spicy tang intact.

• • TCHAIKOVSKY: 1812 Overlure

Chicago Symphony Orchestra, Fritz Reiner, cond.

RCA VICTOR ACS 26. 7-In. \$6.95.

The distinction between Reiner's 1812 performance (first released in the LP miscellany LM 1999) and those by Dorati and Perlea, which introduce "real" cannon, is loosely comparable with that between Wøldike's and Scherchen's Military Symphony. Reiner's is as nonsensational a reading as is possible for Tchaikovsky's bringthe-house-down score, focusing the listener's attention squarely on the work's musical qualities. Unfortunately, of course, the latter are none too substantial, even though they do bulk notably larger here than in routine war-horse performances. And in stereo they certainly seem bigger and better, since the panoramic drama's broader im-pacts are here more exhilarating than oppressive. (Feb. 1957)

• TCHAIKOVSKY: The Nuteracker, Op. 71 (Complete Ballet)

Philharmonic Symphony Orchestra of London, Artur Rodzinski, cond. SONOTAPE SWB 9003-4. Two 7-in. \$17.95 each.

Apparently other listeners reacted as compulsively as I did to the perfect blend of musical, interpretative, and technical attractions in the earlier Sonotape (SWB 9002) of an abridged concert version of *The Nuteracker*, for little time has been lost in combining (in proper sequence) those portions of the score with the rest that go m make up the complete ballet. The finest recorded performance of Rodzinski's long career, this is not yet available—in whole or in part—on LPs, but even when it does appear it will not represent the extraordinary and quite unique difference in kind achieved in a stereo medium tevealed here at something indistinguishably close to its ideal best.

My earlier review needs correction, however, on two subsidiary counts: the concertabridgment compromise between the familiar short suite and the complete work is

Continued on next page



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TAPE DECK

Continued from preceding page

a "happy" one only until one has a chance to hear the whole ballet done equally as well; and while the some 45-minute playing time per reel (here as in SWB 9002) is indeed made practicable by the use of one-mil tape, the actual base material employed is not Mylar (as I erroneously assumed earlier), but acetate.

TCHAIKOVSKY: Symphony No. in G minor, Op. 13 ("Winter Reveries")

Vienoa Philharmusica Symphooy Orchestra, Hans Swarowsky, cond. URANIA UST 1801. 7-in. \$17.90.

Another excellent choice for Urania's first tape-list, for the too often unappreciated felicities of Tchaikovsky's remarkably mature scoring emerge here far more clearly than in any LP version, including, I'm sure, that of the present performance (UR 8008). Swarowsky captures the impetuosity and freshness of this youthful music better than anyone I have heard since Sevitzky long ago on 78s, and he has infected his Viennese musicians with his own (and the twenty-six-year-old Tchaikovsky's) zestfulness and naïve, but disarming, relish in their own powers. I enjoy especially the natural balance and freedom from exaggerated directional effects in the glowing yet extremely pure stereo recording.

OBERLIN CHORAL CONCERT

Oberlin College Choir, unacc., Robert Fountain, cond.

LIVINGSTON 714 BN. 7-in. \$11.95.

As in the recently reviewed Mozart Missa Brevis taping, the collegians are an aural joy for their fresh vocal appeal and lack of affectations or mannerisms in the earnestness of their singing. And as usual in well-balanced stereo reproduction, the unaccompanied voices float on the air with a buoyancy unachievable in single-channel recording. So it is perhaps captious to complain that there is interpretative conviction here only in the exuberant Exsultate Deo by Alessandro Scarlatti and in the devotional moter by the seldom — if ever — represented Karl Heinrich Graun (1701-59). Bach's Fourth Moter, sung here in English as Be Not Afraid, lacks authority and breadth; Norman Lockwood's David Mourneth is managed only with obvious strain; and Christiansen's Beautiful Saviour, with its hummed introduction and maudlin climax, is aestherically off-key with the program's other contents.

REEL MUSIC NOTES

BEL CANTO: Until video-tapes are practicable for home use, you'll have to wait patiently for a TV broadcast or go out to the movies to see Mike Todd's Around the World in So Days; but if you yearn to hear Victor Young's music for it, here's a diverting stereo taping drawn from the original score and played with Hollywood aplomb and polish remarkable for a Cinema Sound Stage Orchestra which hails (so



HIGH FIDELITY MAGAZINE

I'm told) from Hamburg, Germany. Recorded with uncommon brilliance yet unexaggerated stereoism, the music itself is something of an apotheosis of sound-track eclecticism — if not a film-composer's textbook in the art of extracting maximum mileage from a minimum of (mostly borrowed) melodic ideas. Yet as a surprisingly varied and atmospheric tonal travelogue, this should stimulate any listener's wanderlust. (• • ST 20, 7-in., S11.95)

CAMEO: Anyone with a raste for uninhibited solo jazz dramming who prizes Kenny Clarke's La Ronde — Extension X and Goin' Crazy above the symphonic materials in Spotlight on Percussion (Vox DI. 180 or Phonotapes PM 115), or who would like to have these unembellished by narrator Collins' ecstatic commentaries, will welcome their separate release in the present Jazz Drums in Hi-Fi. They're dashingly virtuosic, very brightly recorded, and electrifying (for the first few minutes at least). For myself, I began to weaken, exhausted, long before the end. (PMC TOIT, 5-in., \$2.98)

CAPITOL: Rather than choose between the two now orthodox approaches to stereo demonstration and sampler reels, the first Capirol release features both. The Introduction to Stored stars a professionally crisp narrator (Art Gilmore) and the directional sensationalism of sounds "in the round" and in motion, including the now stereotyped Diesel and subway trains, plus more novel New Year's Eve festivities, ferryboars, and a particularly effective bowlingalley skit. But these are more mercifully brief than usual and the last half of the some 12-minute running time is given over to musical snippers, especially instructive in the comparisons between singlechannel and stereo versions of the same materials (Hollywood Bowl Dark Eyes and Britten's Young Person's Guide percussion). These range from enchancing in a far too brief carol excerpt by the Roger Wagner Chorale to intolerable in a Hammond-organ-dominated Davis Trio pops snatch — but are on the whole too hetero-geneous as well as too souped-up in level and glitter for other than sheerly display audicion (• • ZA 1, 7.in., \$9.95). The latter strictures apply also to A Sindy in Stereo, but here the high-ocrane demonstration powers are more legitimately employed in an unannounced miscellany drawn from the first and forthcoming Capitol tapes and confined to complete musical selections except for a genuinely melodramatic Train Crossing sound-effects divertissement, a naturally blatont climactic episode from Toch's Third Symphony (complete, of course, with its celebrated "hisser" part), and the whole window-rattling percussion section of Britten's Young Person's Guide — heard in abbreviated form only in ZA I. All of this is electrifyingly impressive, but for me most of the pops pieces and light classics are either monstrously overblown or (as with Nat "King" Cole's Stardust) embarrasingly intimate; the finest qualities of stereo definition and spaciousness are more appealing in Fred Wating's choral-and-percussion Dry Bones and the Wagner Chorale's Were

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TAPE DECK

Continued from preceding page

You There. And not the least of this some 26-minute reel's attractions is its 20-page booklet containing not only notes on the pieces played but an admirably lucid introduction to both stereo theory and practice by Edward Tatnall Canby (• • ZH 2, 7-in., \$16.95).

CONCHRTAPES: Richard Pick, despite his appropriate name, is no Segovia, and he demonstrates little insight into authentic Iberian style: nevertheless, his Guitarra Espagnol is one of the most exciting guitar recordings I knnw. It contains some fine, if mostly familiar, music, too (by Tarrega, Torroba, Albeniz, and Granados), together with a seldom-heard Pagina romantica by Pedrell, and a cnuple of inconsequential. but idiomatic, pieces by Pick himself. However it is the combination of close-up miking and stereo openness which makes this often scrabbly playing sonically fascinating: aural realism with a vengeance. (• • 24-1, 7-in., \$11.95). The Jay Norman Quintet's Dancing and Dreaming is a less exaggerated exemplification of ultrabright yet tastefully balanced recording rechniques. Starring Norman himself (piano) and Chuck Calzaretta (vibes), the materials alternate between standard pops and those with mild Latin-American seasoning, the treatments between vivaciousness and a not-too-sentimental expressiveness, all over a steady basic beat which the most timid of dancers can confidently rely on. (• • 24-2, 7-in., \$11.95)

CONCERTAPES: The Leonard Sorkin Strings may hail from Chicago, but they're strictly Hollywoodians at heart in their now overfancy, now nversentimentalized arrangements of Favorite Show Tunes, No. 7. Nevertheless, the ultrabrilliant stereo recording is given a good chance to demonstrate its capabilities in the pizzicato and harp passages throughout, a richly expressive 1s There Someone Lovelier than Yon^2 , and an exceptionally snappy Fascinating Rhythm. (• 22-2, 7-in, \$11.95)

CONCERT HALL: The Marco Gregory Orchestra's Mnsic for a Quiet Mood is neither dynamically unvaried background decoration nor pseudo-Mantovani/Kostelanetz schmaltz. It is indeed conventional enough in its choice of eleven salon favorites (from Eric Coates's Sleepy Lagoon to Sibelius' Valse triste); its distinction lies in its straightforward atrangements and performance by a small orchestra, and, for once, a beautiful recording withour lushness or exaggerated stereoism of well-worn morceaux. (• CHT/BN 34, 7-in., \$11.95)

ELEKTRA (via Livingston): Josh White again, but his Sings the Blues and Other Songs technically outranks his earlier stereo and single-channel tapings in his more distant location vis-à-vis the microphones. It is superior musically, too, thanks to the enhancement of Al Hall's bass by Sonny Greer's traps, and the uniform effectiveness of Josh's own materials — both the auchentic blues (Jim Crow Train, Halleleu, etc.) and the "blued" conversions of Miss Otis Regrets and Gloomy Sunday. (• EL 7-2 BN, 7-in., \$11.95; originally Elektra 114, May 1957)

HIFITAPES: Bruce Prince-Joseph now turns his versatile if undisciplined talents to jazz - of a sort - in Swingin' Harpsichord, in which he nverpowers a noncommittal Manhattan ensemble with frantically jangling elaborations on mostly familiar dance tunes, at least one with a self-consciously humorous side excursion into Mozattean idiorus. But except for the declamatory introduction to Cumana, there is little real jazzical or musical imagination demonstrated here. I've no doubt the general sonic hurly-burly would sound less chaotic in a stereo tape, but although one is available, it is my bad luck to receive only the single-channel version (R 603, 7-in., \$6.95). Even without stereo, though, my relish for the cocktailhour piano of Stan Seltzer (whom I first met in a Stereotape release a year or so ago) is undamped by his present program of Cheek 10 Cheek, Speak Low, etc. His treatments are at once sophisticated and lyrical, lilting, and often astonishingly intricate. The wide-range recording, too, shows up much better here: best of all in the cymbal and bass solos which are cofeatured with Stan's arabesques in Blue Moon. (R 202, 7-in., \$6.95)

OMEGATAPE: No one who has heard only hit tunes from Lehar's Merry Widow and one or two from Kálmán's Gypsy Princess (Das Czardisfürstin) in denatured broadcast or disc dilutions, sung in English with a schmalrzy studio orchestra, can have any adequate idea of what these operettas really sound like in authentically Viennese stage productions. The closest thing to visiting the Volksoper in person is to bring its spirited soloists, chorus, and orchestra (and the reverberant Konzerthaus acoustics) via stereo right into one's living room -20 may be done from two brimful reels of "highlights" starring the fresh, robustvoiced soloists, Friedl Loor, soprano, and Karl Terkal, tenor (plus Mimi Engela-Coertse in The Merry Widow only), under the mercurial baton of Hans Hagen. The variety of tunefulness and sparkling scoring in these works will be a revelation in itself tn many listeners, while the unflagging gusto with which they are projected and the electrical atmosphere captured in the boldly expansive recording are as irresistible as the catchy music. My only complaint is that the accompanying leaflets, summarizing the typically preposterous operetta plots, omit the German titles of the many selections included here - and for these the literal English translations on reelstickets only are a wholly inadequate substitute. (• • ST 3011, Lehár, and • • ST 3009. Kálmán; 7-in., \$14.95 each)

PHONOTAPES-SONORE: Lebár in Stereo! is another enticing approach to the treasurehouse of Viennese melodiousness and color — this time in the form of an orchestralonly potpourri of some fifteen selections from around a dozen Lehár masterpieces, including many unfamiliar to most Ametican listeners. Even the latter may not be completely surprised by some of the most seductive waltz tunes since Johann Strauss, but they surely will be astonished by the piquancy of many of the livelier nonwaltz materials — as well as entranced by the symphonic richness of Victor Hruby's Viennese Orchestra performances and the warmth with which these are captured in gleaming, wide-spread stereo recording. ($\bullet \bullet S$ 707, 7-in., \$11.95)

RCA VICTOR: There may be quibblers to protest that Robert Shaw's With Love from a Chorus and Morton Gould's Oklaboma and Carousel suites are much too good for the frankly "music between" materials. But if you have any inclination to hear malechorus favorites (some sixteen of them) at all, you'll never hear them better sung - and enunciated - than by the Shavians (CC 40, 7-in., \$10.95; originally LM 1815, Dec. 1954). And while I have not been an admirer of many of Gould's recent overorchestrated atrangements of popular tunes, I must admit that he here demonstrates surprising restraint, delicacy, and verve. Beautifully played and recorded, these are miniature symphonic metamorphoses to delight the ears of instrumentally minded Rodgers & Hammerstein fanciers. (CC 37, 7-in., \$10.95; originally LM 1884)

SONOTAPE: Robert Owen's Toccatas for Organ unquestionably will be shattering your cardrums and disorganizing your viscera at every fall hi-fi fair and show "demonstration"! Technically it certainly is astounding, but in every other respect it represents the quintessence of everything I dislike most in organ music, "symphonic" organs, and "display" organ-playing. For me, the famous finale of Widor's Fifth Symphony is (isolated from its context) a pretentious blare; while the Vierne Carillon, Mulet TH es Petrus, and Boëllmann Suite gothighe have even scantier musical interest. The Acolian-Skinner organ of Christ Church, Bronxville, N. Y. is as unattractive autally as any I've ever heard, particularly as dominated (in stereo reproduction and undoubtedly in "live" hearing too) by elephantine, rough, unfocused pedal tones. And Owen himself seems to me plodding even at top speed. In all fairness I must concede that the LP version (Westminster XWN 18363, July 1957) has been warmly received. But this decibel-heavy tape is decidedly not my dish. (• • SWB Sood, 7-in., SI1.95)

STEREOPHONY, INC .: It's been more years than I want to remember since I tried to play - or have heard, for that matter - the so-called musical "sweet potato," and even now I can scarcely credit my own ears that it ever can serve as so bright and fluent a vehicle as it does in Ralph Peer's Peerless Ocarinas. The music itself, naturally, is light stuff (Ciribiribin, Mockingbird Samba, Canadian Capers, and the like) which lends itself well to Peer's florid embellishments, backed up by a piano, bass, and percussion trio. Yet his virtuosity in Carnival of Venice is downright breath-taking his patrol version of Yankee Doodle to drum flourishes is the first (and a fascinating) musical example I've heard of stereo recording of a moving source and the bass ocarina, which he substitutes for the coloratura soprano in When I Grow 100 Old 10 Dream, possesses a mellow drone that is a brand-new aural discovery. (• • B 140, 7-in., some 20 mins., \$7.95)



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Stentorian Speakers

SPECIFICATIONS (furnished by manufacturer): 15-in. CONCENTRIC DUPLEX – Frequency range: 20 to 20,000 cycles. Power rating: 25 watts program. Cone resonance: 35 cps. Impedance: 15 ohms. Magnet weight: 16 lb. Flux density: woofer, 14,000 Gauss; tweeter, 17,000 Gauss. Crossover network: 1,500 cps, integral with speaker. 12-in. CONCENTRIC DUPLEX – Frequency range: 20 to 20,000 cps. Power rating: 15 watts program. Cone resonance: 35 cps. Impedance: 15 ohms. Magnet weight: 11½ lb. Flux density: woofer, 14,000 Gauss; tweeter, 17,000 Gauss. Crossover network: 1,500 cps, integral with speaker. HF-1514 15-in. WOOFER – Frequency range: 25 to 40,000 cps. Power rating: 25 watts program. Cone resonance: 35 cps. Impedance: 15 ohms, Magnet weight: 10 lb. Flux density: 14,000 Gauss. HF-1214 12-in. WIDE RANGE SPEAKER – Frequency range: 25 to 14,000 cps. Power rating: 15 watts program. Cone resonance: 39 cps. Impedance: 15 ohms. Magnet weight: 5½ lb. Flux density: 14,000 Gauss. T-816 8-in. CONE TWEETER – Frequency range: 1,500 to 17,000 cps. Power rating: 15 watts program above 1,500 cps. Impedance: 15 ohms. Magnet weight: 3½ lb. Flux density: 14,000 Gauss. T-816 8-in. CONE TWEETER – Frequency range: 1,500 to 17,000 cps. Power rating: 15 watts program above 1,500 cps. Impedance: 15 ohms. Magnet weight: 3½ lb. Flux density: 16,000 Gauss. Crossover units: two:way 16-ohm networks for 12 db/octave crossover @ 500, 1,500, or 3,000 cps. Prices: 15-in. Duplex, 5159.50; 12-in. Duplex, \$119.00; HF-1214 Extended-Range Speaker, \$49.50; 18-16, \$29.50; Crossover Networks, \$13.95 for 500- and 1,500-cps



The HF-1214 (left) and the 12-inch Duplex.

units; \$9.95 for 3,000-cps unit. Constant-impedance flush-mount stepped tweeter level control, for 4, 8, or 15 ohms, \$6.95. DIS-TRIBUTOR: Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J. Two distinctly different types of loudspeaker sound are represented by these stentorian speakers from Whiteley Elec-



Stentorian's 15-inch HF-1514 woofer bas a rated 35-cycle cone resonance.

trical Radio Company, in Great Britain. The Duplex speakers, both of which are true two-way coaxials, incorporate horntype compression tweeters that produce a "forward" type of sound. The wide-range units and the cone tweeter provide more distant, spacious sound for the person who prefers a "row M" listening location.

With the exception of the cone tweeter, all these speakers are structurally similar, with a die-cast metal frame, proportionally heavy magnet, cambric cone, and the familiar "black patch" mid-range stabilizers that make Stentorians immediately recognizable on sight. The 15-inch woofer and the Duplex speakers are drilled to conform to the U. S. standard for loudspeaker mounting centers, and all units have adjustable center spiders, enabling the cone to be recentered if necessary without ungluing the spider. This is a very handy arrangement.

Evidently, these speakers were designed for use in bassreflex or horn-type enclosures, since they seem to perform best when so housed. The 15-inch woofer, in a large, carefully adjusted reflex enclosure, seemed audibly smooth down to around 40 cycles, slid off gradually to 35 cycles, and was virtually out by 32. Some doubling was detected below 50 cycles. Response was smooth up to around 800 cycles, where there was a gradual dip to 1,000 and then a slow rise to a mild peak at 2,000 cycles, with cutoff occurring fairly sharply above 3,000 cycles. On music, the 15-inch woofer produced remarkably full, deep bass, with a crisp rather than lush



The T-816 is an 8-inch molded paper cone Iweeler for operation in the range above 1,500 cycles.

character. Bass transients were well reproduced — surprisingly so, in fact, considering the weight of this cone. The middle range, also, was reproduced cleanly and with good definition.

The 15-inth Duplex speaker, with its horn-loaded tweeter and built-in crossover network, produced somewhat fuller bass than the woofer alone, but did not have quite as good bass definition. Its ear-measured response was similar to that of the woofer up to around 600 cycles, where it showed a slight peak, and then continued flat to around 1,500 cycles. Then there was a fairly abrupt rise centered around 3,000 cycles, a slow tapering off to 5,000, and then essentially flat response to a little beyond 9,000 cycles, with rapid rolloff above that. Its over-all sound is full and bright, managing to produce rather "showy" sound without the metallic brilliance of some coaxials.

The 12-inch Duplex has much the same forward sound as the 15, with the main difference being at the low end. Lowfrequency definition is somewhat superior in the 15-inch



A crossover network and attenuator control.

unit, but its bass range and fullness are nor, of course, as impressive as that from the Duplex 15.

My personal preference among these Stentorians is the HF-1214 extended-range speaker. As a lower-priced speaker, this does not measure out as well as do the Duplex units, either at the high or low ends; but its sound is sweet, very well balanced, and remarkably lacking in coloration of any kind. Despite its relatively modest frequency range specification, this speaker is capable of reproducing musical timbres with convincing realism. If you feel the need of more brilliance or wider range, the T-816 tweeter and a 1,500-cycle crossover can be added at little additional cost.

The T-816 is available either unmounted, for installation

in an existing enclosure (in its own isolated compartment, to minimize back pressures from the woofer enclosure), or already mounted in a compact polished mahogany cabinet that can simply be set on top of the woofer enclosure. Stentorian also makes available a constant-impedance balancing control, that can be inserted between the crossover network and the tweeter.

The crossover networks themselves (see Specifications) are full-section 12 db/octave networks that can be used with any 16-ohm speakers. Measured response of the 1,500-cycle network that was sent to us for testing indicated a high degree of crossover accuracy and freedom from transient disturbances (ringing). The woofer circuit introduced a measured 2 ohms of DC resistance in series with the woofer, so one of the effects of the crossover is to produce an audible increase in low bass response, with a corresponding loss of woofer damping. — J.G.H.

MANUFACTURER'S COMMENT: Since these Stentorian speakers were submitted for Testing in the Home, the Concentric Duplex 15-inch speaker's crossover frequency has been changed to 3,000 cycles, resulting in improved linearity of frequency response. We would like to point out that the reasons for the unusually good bass and transient responses mentioned are the patented Stentorian cambric cones and the large "Alcomax" magnets which give maximum flux densities in the voice coil gaps of all Stentorian speakers.

ESL Dust Bug

DESCRIPTION (furnished by manufacturer): an automatic continuous record-cleaning brush for microgroove and standard discs. Price: \$5.75. MANUFACTURER: Electro-Sonic Laboratories, Inc., 35-54 36th St., Long Island City 6, N. Y.

The ESL Dust Bug (made in England) is a triple threat device. At the end of an 8-inch plastic arm is a small brush, about $\frac{1}{8}$ inch in diameter. This rides in the record grooves, cleaning them and guiding the arm across the record surface. Behind this brush is another, which looks like a cross section of a large brown, fuzzy caterpillar. This roller-brush is $\frac{3}{8}$ -inch in diameter and $\frac{3}{4}$ -inch wide. These are two of the threats to dust; the third is an anti-static liquid which one applies to the two brushes.

The Dust Bug arm sits on a plastic post and pillar; the pillar attaches to the turnrable base with a suction cup, and



The Dust Bng cleans discs and kills static.

from it extends the post — height is adjustable — with a little ball for a bearing. On this, the arm rests and swivels. The arm is long enough to work with up to 16-inch discs.

The Dust Bug is simple and effective. It removes an amount of dust that may astonish those who have not used a brush-type device before. In general, a device which operates on the record while it plays is to be preferred in locations where dust settles fairly rapidly; a lot can accumulate in half an hour. The anti-static solution may be used or not; we suspect many will not use it, simply because it's one of those little chores that most of us neglect. — C.F.

MANUFACTURER'S COMMENT: The Dust Bug anti-static solution is an electrical conductor and has lubricating properties. In operation, the plush pad on the Dust Bug spreads a thin film of this solution over the disc surface, rendering the disc electrically conductive and thus carrying away the static charge that develops because of friction between the stylus and the groove. This not only eliminates static discharge "pops" in the system, but also prevents the attrac-

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HIGH FIDELITY MAGAZINE



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tion that draws and holds dust particles to the disc. Thus the dust may easily be removed by the brushes on the Dust Bug.

One component of the anti-static solution is ethylene glycol, which reduces the friction between the stylus and groove. This reduces surface noise, record and stylus wear, and generation of static electricity.

Unless the anti-static fluid is used, the Dust Bug is merely a cleverly-designed record brush, and its described benefits cannot be obtained.

Fisher Model 500 FM-AM Receiver and FM-90X FM Tuner

SPECIFICATIONS (furnished by manufacturer): MODEL 500 RECEIVER an FM-AM tuner, preamplifier-control unit, and power amplifier all on one chassis. Inputs: four; for magnetic phono pickup, tape playback head, and two high-level circuits (Aux 1 and Aux 2). Controls: selector switch with illuminated position indicator (for AM, FM,) Phono (AES, RIAA, LP, NAB equalization choices), Tape, Aux 1, and Aux 2; concentric volume and four-position loudness contour controls; concentric bass (±15 db, 50 cps) and treble (±15 db, 10,000 cps) tone controls; AC power on-off switch; and tuning knob with associated signal strength tuning meter. Screw-driver adjustment for meter is on top of chassis. Outputs: tape recorder and FM multiplex outputs, unaffected by volume, loudness, and tone controls; 4, 8, and 16-ohm outputs to loudspeaker. Switched AC outlet on back chassis apron. Power amplifier: 30 watts; 60 watts peak. Tubes: 6BC8, 6UB, 2-6BA6, 6BE6, 2-6AU6, 3-12AX7, 2-EI37, 5V4GA, 6X4, 2-IN542 germanium diodes. Dimensions: 13% in. wide by 13% deep by 64% high. Price: \$249.50; mahogany or blonde cabinet, \$19.95 extra. FM-90X TUNER — an FM-only tuner designed for maximum quality and sensitivity. Controls: on front panel, combined AC power and interstation noise muting control, and tuning knob with associated signal strength tuning meter and center-of-channel meter. Output level control on back chassis apron; screw-driver adjustments for both meters on top of chassis. Outputs: main output and paralleled output for tape recorder; FM multiplex output. Sensitivity: full limiting on 1 uv input. Tubes: V50.064, 6BK7A, 3.—6BH6, 6AM8, 12AX7, 6X4, 2—IN295 and 2—IN542 germanium diodes. Dimensions: 13% in. wide by 8% deep by 6½ high. Price: \$169.50; mahogany or blonde cabinet, \$17.95 extra. MANUFACTURER: Fisher Radio Corp., 21-25 44th Dr., Long Island City, N. Y.

These Fisher units really represent two distinct approaches to high fidelity system design. The 500 incorporates on a single chassis a fine FM-AM tuner, a good preamp-equalizercontrol unit, and an excellent 30-watt amplifier: all you need for a complete hi-fi system, as a matter of fact, excepting a record player and loudspeaker. It provides for about as compact and simplified a system as anyone could wish, with a minimum sacrifice of control flexibility. The FM-90X, on the other hand, is intended for the most elaborate separate-component-type system, with no compromises at all; it is Fisher's finest.

The FM section of the 500 is basically the same circuit that has won unqualified praise from thousands of users during past years, with an important change — a wide-band detector section. This makes the circuit even better able to reject noise and interference from strong adjacent stations than it used to be. It is extremely sensitive, selective, drift-free, and altogether satisfactory. The AM section is sensitive and seems to have a fairly wide bandwidth. Such a combination of characteristics makes for poor reception in AM fringe areas, because it is designed to provide good quality from the strong AM signals that are to be found in most places.

There are also four input circuits in the 500 for external sources. Two are "high-level" inputs — that is, they can be used for the output from a crystal or ceramic cartridge, a TV sound tuner, or a tape playback amplifier. Any two of these can be connected permanently to the receiver and controlled by its selector switch; the switch positions are "Aux l" and "Aux 2". Another of the input circuits, marked "Tape," is for direct connection of a tape playback head without an intervening preamplifier. Standard NARTB playback equalization is provided, and this circuit is useful for the second channel when you convert your tape machine for stereo playback, or if you buy a monaural tape deck without a playback preamplifier. The signal input is for a magnetic phono pickup; this occupies four positions on the selector switch, with different equalization in each position: AES, RIAA, LP, and NAB. Although RIAA is supposed to be standard for all modern records, you'll probably find the extra positions useful even if you don't own any pre-1954 discs.

Just above the selector switch is a dial on which the four input channels, together with the FM and AM sources, are lettered. A little red light goes on next to the source to which you have the selector switch turned, so that you can't possibly get lost. There is also a connector on the back of the 500 that furnishes a signal to feed to a tape recorder. This output is controlled by the tuning knob and the selector switch, of course, but not by the other controls on the 500. You can adjust the sound from your loudspeaker without affecting a recording you may be making.

Next in line is the volume control and, concentric with it, a loudness compensation switch. This switch has an off position and three positions in which progressively more bass and treble boost is added as the volume control is turned down. At maximum position of the volume control, no boost is added in any position of the switch; but at low volume settings, boost is supplied in varying degree according to the



The Fisher 500 combination tuner-amplifier.

switch position. Maximum possible boost on our test receiver was about 15 db at 50 cps and 9 db at 10,000 cps. This is relatively mild and, in my opinion, audibly agreeable loudness compensation.

At the center of the front panel are concentric bass and treble tone controls. These are of the variable-crossover negative-feedback variety, about average in operating range. According to my measurements, response from 20 to 20,000 cps was within ± 2 db in the indicated flat positions of the controls.

To the right of the tone controls is the AC power switch. At the extreme right is the tuning knob for both FM and AM sections. Above this is a runing meter effective on both sections. It should be noted that a finely-calibrated logging scale is included on the tuning dial, and that built-in FM and AM antennas are supplied for locations in which they can be used.

The power amplifier of the 500 is good — surprisingly good, in fact. It has no trace of instability at either frequency extreme; it is powerful enough for virtually any installation; and the sound is excellent. I measured less than 1% IM distortion at 10 watts from input to output, and less than 0.1% at 1 watt. By itself the amplifier could

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wonderful

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be recommended highly, and this is true also of the tuning and preamp-control sections. The 500 is ideal for any installation requiring a combination of quality and compactness.

Frankly designed for the man who wants maximum possible performance, the FM-90X tuner utilizes a special-purpose ultra-quality low-noise input tube (called the "gold cascode"). Since FM tuners have long had gain to spare, the only practical way of increasing usable sensitivity is by reducing the input-circuit noise. This permits even lower input signals to override the noise: hence the gold cascode tube.

Other de luxe features of the FM-90X (and the FM-90) are antenna input circuits for both 72-ohm and 300-ohm antenna systems; four IF amplifier stages (usual number: two or three); dual dynamic limiters, and the new Fisher wide-



The FM-90 "golden cascode" FM tuner unit.

band detector, for maximum suppression of noise and interference; FM multiplex and tape recorder outputs, as well as the main output; a silvered RF section shield; and two tuning meters, one indicating relative signal strength and another a center-of-channel indicator for the detector section. On the front panel, on the same shaft as the AC power switch, there is a continuously-variable muting control, which can be adjusted to remove the typical rushing noise between stations. Such controls can also remove extremely weak stations, unfortunately, so the variable feature is desirable. There is no front-panel volume control, but there is an output levelset control on the rear chassis apron. That also makes good sense; why duplicate the volume and/or loudness-control functions of the preamp-control unit with which the FM-90 tuners would certainly be used?

The FM-90X performed brilliantly in every test 1 was able to give it. In sensitivity and rejection of noise and interference it is superb, and the audio quality is seemingly limited only by the FM station. In short, it is likely to please buyers who are willing to pay a premium for the satisfaction of getting premium service. — R.A.

Shure Dynetic Arm and Cartridge

SPECIFICATIONS (furnished by manufacturer): an integrated magnetic pickup cartridge and arm assembly. Arm length: 11 in. from stylus to rear pivot. Offset angle: 17° . Arm damping: by means of a counterweight on a leaf spring; with spring embedded in flexible plastic block. Arm balanced around vertical pivot. Cartridge: moving-magnet, with stylus/magnet assembly easily removable for replacement or inspection. Effective stylus mass: 11/2 milligrams. Compliance: 7 x 10^{-6} cm/dyne. Response: proportional to velocity throughout audio range when properly loaded. Recommended load: 10,000 ohms. Tracking force: 1 to 2 grams, adjustable. Price: \$79.50, com-

Although we don't know of any large-scale experimental work on the subject, some recent studies indicate that a cartridge capable of tracking at a force between 1 and 2 grams should wear records and styli substantially less than one operating at several times this force. Moreover, such a cartridge should be inherently easier to design with extended peak-free response.

But the very high compliance and low moving mass that are necessary for successful tracking at 2 grams or so inevitably impose more severe requirements on arm performance. Significantly, most cartridges designed for extremely low tracking force are purposely made to be usable only in companion arms; in other words, engineers are finding it not only desirable but necessary to design the arm and cartridge as a single unit. The Shure Dynetic is the latest of these, and a real beauty it is.

Not only is the Dynetic's performance outstanding, but its appearance is neat and it has a hand-built quality. The long tapered-channel arm body clamps rigidly, at the desired height, to the vertical jewel-bearing pivot assembly. This is designed for absolutely minimum friction, without viscous grease-damping. Damping is supplied by a chromed counterweight that is attached to the rear extension of the arm by a leaf spring, flexible laterally. The spring is embedded in a gelatinous plastic. Thus, sidewise motion of the arm is impeded only at the sub-bass resonance frequency, and the arm is left free to follow grooves of off-center records without resistance.

The arm itself is not free to move vertically. The cartridge shell is mounted on a smaller arm that fits within the main arm, and which is pivoted on a pair of jewel bearings located about an inch from the front end of the main arm. Back of the pivot, the inner arm is threaded for a knurled nut that acts as an adjustable counterweight for the cartridge. Its range of adjustment is from 1 to 2 grams stylus force. Still farther back a plastic button projects upward through the main arm; depressing this button forces down another leaf spring that, in turn, pushes down the back end of the inner arm lever and raises the cartridge in front, lifting the stylus above record-playing level. To put the arm in operation you simply push down on this button with one finger, move the arm laterally to the desired position, and release the button.

This arrangement has several advantages. It reduces the effective vertical mass to about the lowest practical amount, thus minimizing groove-gouging on a warped record. You can't drop the weight of the whole arm on the record, so a potential source of damage to the record, stylus, or cartridge is eliminated. As a matter of fact, it is virtually impossible to scratch a record or chip a stylus with this assembly. The arm can be moved back and forth across the record, when the stylus is in playing position, without visible or audible damage. There is one disadvantage also: it is difficult to release or depress the cartridge-lift button without some sidewise movement. While this does no physical harm, the resulting roar from the loudspeaker may represent a mental hazard for anyone not expecting it.

The stylus itself is mounted at the end of a light cantilever bar about $\frac{1}{4}$ in. long. At the other end of the cantilever, and on the opposite side, is attached the end of a miniature magnet, square in cross section, and about $\frac{3}{8}$ in. long. This magnet is inserted into a square hole in a pliant plastic material inside the cartridge. When in position the magnet is situated between two coils. Movement of the stylus rotates the magnet bar, which produces an electrical output from the coils. The stylus/magnet assembly can be removed and replaced easily without tools, and the cartridge as a whole simply plugs

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Sonotone announces a <u>true</u> coaxial speaker system for only \$79.50



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Power handling capacity	. 10 watts
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Crossover frequency	
Impedance	. 15 ohms
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Cabinet: 30" x 14" x 20". Available in mahogany, blond or walnut hand-rubbed finish on birch. Shipped with CA-12 installed. Shipping wt.: Approx. 50 lbs. Price: \$79.50 Slightly higher in the West

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into the inner arm assembly. Lateral and vertical compliance of the stylus are both very high, and the mass very low. Electrical output of the cartridge is lower than average, but not so low that an input transformer is required. Magnetic attraction to the turntable is negligible, and so is the cartridge's sensitivity to hum pickup.

The arm rest is simply a post with a base, matching in design the vertical pivot assembly. There is a magnet mounted within the main arm that holds it against the post firmly. Incidentally, both the pivot base and armrest base illustrate well the consideration given the customer's point of view in development of this arm. Both bases are screwed



The Shure Dynetic tracks at 1 to 2 grams.

directly to the turntable mounting board; but each base is supplied with a black lacquered disc that fits over the post and conceals the mounting screws!

Because the arm is balanced about the vertical pivot, there is no need for more than nominal care in leveling the assembly. Except for cases in which there is severe floor vibration, moreover, a stylus force of 1 gram is adequate to prevent groove-skipping. All the jewel bearings are perfectly free without detectable play, which helps to eliminate mechanical resonances. Stylus talk is almost nonexistent. The result is a pickup assembly producing sound which, to my ears, is unsurpassed in clarity, definition, and range; that is exceptionally gentle to records; and that gives promise of being sturdy and trouble-free.

The assembly is normally furnished with a 0.7-mil diamond stylus, which yields a favorable compromise between the virtues of 1-mil and 1/2-mil sizes, and a cattridge with a 3mil stylus is available for use with 78 rpm records. — R.A.

ACA Magnemite Recorder

SPECIFICATIONS (furnished by manufacturer): a self-contained, selfpowered portable tape recorder. Speeds: single speed, 15, 7.5, 3.75, 1.875, or 0.94 ips, as ordered. Two, three, and four-speed models also available. Reel capacity: 5 in. Frequency range: 50 to 15,000 cps @ 15 ips; 50 to 7,500 cps @ 7.5 ips; 50 to 5,000 cps @ 3.75 ips; 100 to 3,000 cps @ 1.875 ips; 300 to 2,500 cps @ 0.94 ips. Signal-to-noise ratio: 50 db @ 15 and 7.5 ips, single-track; 47 db @ 7.5 ips, half-track; 45 db @ 3.75 and 1.875 ips, half-track; 35 db @ 0.94 ips, half-track. Flutter: 0.1% @ 15 and 7.5 ips; 0.15% @ 3.75 ips; 0.2% @ 1.875 ips; 0.25% @ 0.94 ips. Continuous running time for spring motor: 3 min. @ 15 ips; 6 min. @ 7.5 ips; 7.5 min. @ 3.75 ips; 15 min. @ 1.875 ips; 30 min. @ 0.94 ips. Inputs: total of two, for high-impedance microphone and high-level bridging input. Controls: motor start-stop switch; power on-off switch; record and playback volume; play-record switch; meter selector switch on VU Magnemite. Output: 5 volts (2) 50,000 ohms, to external amplifier or monitor headphones. Battery life: 100 operating hours. Tope speed adjustment: \pm 10%. Erasure: optional permanent magnet, Weight: 12 lb. for standard magnemite; 17 lb. for VU magnemite. Tubes: 3 - 1AF4, 1L4. Dimensions: 11 in. wide by 8 high by 5 deep for 0.94 and 1.875 ips models; 11 in. wide by 10 high by 7 deep for all other models. Prices: \$225 to \$455, depending on speed and monitoring facilities. MANUFACTURER: Amplifier Corporation of America, 398 Broadway, New York 13, N. Y.

If any phonograph manufacturer, at the present state of the high fidelity art, were to advertise as "high-fidelity" a phono player as small and as light as the ACA Magnemite recorder, he would certainly provoke a good many chuckles at his expense. Informed hi-fi enthusiasts know that a phonograph may be easily portable or it may be high-fidelity, but it isn't likely to be both at once.

A tape recorder, however, need not be dimensionally limited, because it doesn't have to include a loudspeaker. All it needs for its primary function — recording — are a transport mechanism, a recording head, and a few light-duty tubes with their associated power supply. If we use a spring motor, miniature tubes, a battery pack for the power supply, and a lot of good engineering, we have something like the Magnemite, which is not only high-fidelity and very portable, but is also completely self-powered. This combination of virtues adds up to a tape machine that can record where others cannot, because it is totally independent of external power sources and is sufficiently portable to carry around like a camera.

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Continued on page 118



Brightest star in the

hi-fi heavens... the CONN organ

The ultimate in music enjoyment comes from the music you make yourself. On a Conn organ, this making of music is easy and the results are satisfyingly beautiful and inspiring.

The Conn Rhapsody here pictured is a fine musical instrument built to the standards of electronic perfectionism which the hi-fi fan today demands. Two 49-note nianuals, a 25-note pedalboard and 27 rocker-type control tabs activate the multivoiced tone system, which includes three built-in high fidelity speakers. Excitingly styled by Raymond Loewy in African, beige mahogany or ebony finishes, the Rhapsody console is only 50" wide, 37%" high and 26%" deep.

The price of the Rhapsody is less than \$2000. For this, the perfect complement to your fine high fidelity system, see your Conn organ dealer or send the coupon below. Conn Organ Corporation, Elkhart, Indiana.



SEPTEMBER 1957



111

SOLO VOICES

- 1. Diapasan 8
- 2. Soft Flute 8
- 3. Concert Flute 8
- 4. Soft String 8
- 5. Violin 8
- 6. English Horn 8
- 7. Oboe 8
- SOLO COUPLERS
 - 8. Accomp to Solo 16 9. Unison Off
 - 10. Solo 4
 - 11. Solo 2-2/3
 - 12. Solo 2
 - 13. Solo 1-3/5

15. Sub-Boss 16. Major Bass

PEDAL VOICES

ACCOMPANIMENT

14. Echo Bass

- 17. Solo to Accomp 8
- 18. Solo to Accomp 4

Ø

- 19. Open Diapason 8
- 20. Accomp Flute
- 21. Flute 8
- 22. Echo String B 23. Cello B

24. Reed 8

- GENERAL
 - 25. Tremolo L 26. Tremolo M

27. Tremolo F

- CONN ORGAN CORPORATION Elkhart, Indiana
- Please send Conn Rhapsody Bulletin 3060.
- Please send electronic description of Conn organ tone production.
 Please send list of music recently arranged for Conn organ.
- Name.....

The ever-fresh pleasure that precision-reproduced music brings can be yours with a JBL Signature Extended Range Loudspeaker. Whether your plans are most elaborate, or the JBL beginnings of your high fidelity system quite modest, one of these five JBL Signature units will be just right for your needs, the 15" D130, the 12" D131, the 12" D123, the 8" D208, or 8" D216. Their highly original, excellent basic design; solid, rigid parts; and precision assembly give you music of a rare, clean, crystalline clarity. There is nothing quite like a JBL Signature Extended Range Loudspeaker ... nothing so continuously pleasing for your adventurous years of extensive listening. If you will write, we will be happy to send you a free copy of our complete catalog.

whatever your plans, you can enjoy the finest ...

"JBL" means JAMES B. LANSING SOUND, INC., 3249 casitas avenue, los angeles 39, california

Sonotone announces a <u>true</u> coaxial speaker system for only \$79.50



BIGGEST HIGH-FIDELITY VALUE IN YEARS

Count on Sonotone to bring you all these big-cabinet features at a price you can easily afford. After all, Sonotone's been up to its ears in acoustical research for 30 years!

The "110" speaker system is ideal for any home use. It's styled to fit any decorating scheme. It can be placed anywhere in the room. And if you're thinking of two-system stereo, two "110" systems are exactly right in size and price!

Ask to hear the "110" at your dealer's!

The Sonotone "110" Loudspeaker System

Speaker	. CA-12 12-inch coaxial
Power handling capacity	. 10 watts
Frequency range	. 40-14,000 cycles
Resonant frequency .	
Crossover frequency .	. 2000 cycles
Impedance	. 15 ohms
Flux density	, 12,000 gauss

Cabinet: 30" x 14" x 20". Available in mahogany, blond or walnut hand-rubbed finish on birch. Shipped with CA-12 installed. Shipping wt.: Approx. 50 lbs. Price: \$79.50 Slightly higher in the West

St MARL	NAME
SONOTONE CORPORATION	ADDRESS
Dept. LH-97, ELMSFORD, N. Y.	

TESTED IN THE HOME

Continued from page 114

into the inner arm assembly. Lateral and vertical compliance of the stylus are both very high, and the mass very low. Electrical output of the cartridge is lower than average, but not so low that an input transformer is required. Magnetic attraction to the turntable is negligible, and so is the cartridge's sensitivity to hum pickup.

The arm rest is simply a post with a base, matching in design the vertical pivot assembly. There is a magnet mounted within the main arm that holds it against the post firmly. Incidentally, both the pivot base and armrest base illustrate well the consideration given the customer's point of view in development of this arm. Both bases are screwed



The Shure Dynetic tracks at 1 to 2 grams.

directly to the turntable mounting board; but each base is supplied with a black lacquered disc that fits over the post and conceals the mounting screws!

Because the arm is balanced about the vertical pivot, there is no need for more than nominal care in leveling the assembly. Except for cases in which there is severe floor vibration, moreover, a stylus force of 1 gram is adequate to prevent groove-skipping. All the jewel bearings are perfectly free without detectable play, which helps to eliminate mechanical resonances. Stylus talk is almost nonexistent. The result is a pickup assembly producing sound which, to my ears, is unsurpassed in clarity, definition, and range; that is exceptionally gentle to records; and that gives promise of being sturdy and trouble-free.

The assembly is normally furnished with a 0.7-mil diamond stylus, which yields a favorable compromise between the virtues of 1-mil and $\frac{1}{2}$ -mil sizes, and a cartridge with a 3mil stylus is available for use with 78 rpm records. — R.A.

ACA Magnemite Recorder

SPECIFICATIONS (furnished by manufacturer): a self-contained, selfpowered portable tape recorder. Speeds: single speed, 15, 7.5, 3.75, 1.875, or 0.94 ips, as ordered. Two, three, and four-speed models also available. Reel capacity: 5 in. Frequency range: 50 to 15,000 cps @ 15 ips; 50 to 7,500 cps @ 7.5 ips; 50 to 5,000 cps @ 3.75 ips; 100 to 3,000 cps @ 1.875 ips; 300 to 2,500 cps @ 0.94 ips. Signal-to-noise ratio: 50 db @ 15 and 7.5 ips, single-track; 47 db @ 7.5 ips, half-track; 45 db @ 3.75 and 1.875 ips, half-track; 35 db @ 0.94 ips, half-track. Flutter: 0.1% @ 15 and 7.5 ips; 0.15% @ 3.75 ips; 0.2% @ 1.875 ips; 0.25% @ 0.94 ips. Continuous running time for spring motor: 3 min. @ 15 ips; 6 min. @ 7.5 ips; 7.5 min. @ 3.75 ips; 15 min. @ 1.875 ips; 30 min. @ 0.94 ips. Inputs: total of two, for high-impedance microphone and high-level bridging input. Controls: motor start-stop switch; power on-off switch; record and playback volume; play-record switch; meter selector switch on VU Magnemite. Output: 5 volts @ 50,000 ohms, to external amplifier or monitor headphones. Battery life: 100 operating hours. Tape speed adjustment: $\pm 10\%$. Erasure: optional permanent magnet. Weight: 12 lb. for standard magnemite; 17 lb. for VU magnemite. Tubes: 3 - 1AF4, 1L4. Dimensions: 11 in. wide by 8 high by 5 deep for 0.94 and 1.875 ips models; 11 in. wide by 10 high by 7 deep for all other models. Prices: \$225 to \$455, depending on speed and monitoring facilities. MANUFACTURER: Amplifier Corporation of Americe, 398 Broadway, New York 13, N. Y.

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Continued on page 118

HIGH FIDELITY MAGAZINE



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DIAGRAM OF RHAPSODY VOICE TABS AND COUPLERS

SOLO VOICES

- 1. Diaposon 8 2. Soft Flute 8
- 3. Concert Flute 8
- 4. Soft String 8
- 5. Violin 8

6, English Horn 8 7. Obce 8

- SOLO COUPLERS
 - 8. Accomp to Solo 16
 - 9. Unison Off
 - 10. Solo 4
 - 11. Solo 2-2/3 12. Solo 2
 - 12. Solo 2 13. Solo 1-3/5
- 26. Tremolo M

GENERAL

PEDAL VOICES

14. Echo Bass

15. Sub-Bass

16. Major Bass

ACCOMPANIMENT

17. Solo to Accomp 8

18. Solo to Accomp 4

19. Open Diapeson 8

20. Accomp Flute

22. Echo String 8

21, Flute 8

23. Cello 8

24. Reed 8

27. Tremolo F

25. Tremolo L

CONN ORGAN CORPORATION Elkhart, Indiana

Please send Conn Rhapsody Bulletin 3060.

Please send electronic description of Conn organ tone production.
 Please send list of music recently arranged for Conn organ.

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TESTED IN THE HOME

Continued from page 116

felt pressure pad holds the tape against the record/playback head. When the tape is to be threaded or rewound, the pinch wheel may be swung away from the capstan, and this automatically releases the pressure pad. There are no high-speed winding facilities, however; a small hand crank atop the supply reel enables it to be rewound over short distances, but full rewinding or fast-forward winding is better carried out by transferring the reels to another tape deck.

For applications in which speed constancy is important, the cast-iron doughnut-shaped flywheel can be removed from its carrying niche inside the recorder cover, and fastened to the capstan by means of a knurled hub. Since the flywheel is quite heavy, it could bend or otherwise damage the capstan if the recorder were severely jarred, so it should be removed while carrying the Magnemite.

As noted in the specifications, Magnemites are available for practically any single speed, or in multi-speed models for up to four different speeds. Special models are also obtainable in aluminum weathertight carrying cases or with fungus-proof tropicalized mechanism, amplifier, and case. The unit we requested for testing was a 610-DV VU Magnemite, with a VU meter, single-track 7.5 ips speed, and the standard two-tone leatherette case.

Frequency response for the 7.5 and 15 ips Magnemites is specified as conforming to the NARTB secondary and primary response limits, which leave considerable room for latitude at the frequency extremes. Our test unit was within its specified limits, with a playback response that we measured as ± 1.0 db from 100 to 6,000 cycles, and -5 db at 50 and 7,500 cycles. Other specifications were also met, as far as 1 could ascertain, including the rather remarkable figure of 0.1% flutter! Our unit, however, showed a tendency



The VU Magnemite self-powered tape recorder.

to create tape burbles, which may have been the result of misadjustment of the supply reel brake.

As might be expected (in view of the battery power supply), hum from the Magnemite was just about nil, and amplifier noise was also very low. In these respects, the Magnemite equaled some of the most costly professional tape recorders.

When recording or playing tapes, the Magnemite should not be allowed to run down sufficiently to actuate its warning light, because the making and breaking of the switch contacts creates loud clicking noises that are reproduced along with the desired program. The best idea is to wind the motor after every 4 minutes or so of running time (at 7.5 ips), so that it never winds down enough to light the warning lamp.

Playback quality from our sample Magnemite was very good. Its record and playback equalization are not the same as that used in most other recorders, so Magnemite-recorded tapes must be played on the Magnemite. They may then be dubbed to another tape or transferred directly to disc.

A catalogue sheet supplied with our Magnemite listed 46 accessories, ranging from microphones to shoulder straps and a tiny pitch whistle that sounds 440 cycles (international musical "A"). You record a tweet from the pitch whistle onto the tape when recording, and then use it later for checking playback speed. The instruction booklet for the 610-DV was clearly written, but not, I felt, sufficiently explicit about such matters as tape playback compatibility, which was mentioned earlier in this report.

The Magnemires are, all in all, remarkably good for their size and weight. They appear to be built to take hard usage, and their portability alone would be enough to make them invaluable for many remote recording projects. I am not at the present time planning a junket to the Himalayas to record the mating call of the Abominable Snowman, but if I were, I should certainly make room in my rucksack for a Magnemite. — J.G.H.

Robins Jockey Cloth for Tapes

DESCRIPTION (furnished by manufacturer): a silicon-impregnated cloth for lubricating, cleaning, and reconditioning magnetic recording tape. Price: \$1.00, package of 3 in polyethylene bag. MANUFAC-TURER: Robins Industries Corp., 214-26 Forty-first Avenue, Bayside 61, N. Y.

I have spent many idle hours speculating about these Jockey Cloths, but I still fail to see why they are called Jockey Cloths. Maybe *track* cloths, or *erace* cloths, but I reely can't gauss what prompted the name "Jockey." Perhaps the manufacturer can set my mind at peace about this.

Seriously, though, this is a clever idea. Most modern recording tapes are already lubricated sufficiently to prevent squealing or rapid head abrasion, but many tape recordists own old tapes that were never properly lubricated or that have dried out sufficiently to become virtually unplayable. The Jockey Cloth is impregnated with a liquid silicon lubricant which, when applied to a length of tape, adheres to it as a microscopically thin lubricating film.

The lubricant is applied by folding a single Jockey Cloth (they're sold 3 per package) over the tape, and running the tape through its entire length while it is being rewound or shuttled ahead in the "fast forward" mode of the tape machine. The cloth also functions as an efficient cleaner, removing from the tape free oxide particles that would otherwise rub off onto heads and tape guides.

Little more need be said about the Robins Jockey Cloth, except that it does what it is supposed to do. It won't restore the flexibility of a desiccated plastic base, but it will materially reduce squealing from many tapes, and the amount of dirt it gathers from tapes is sometimes almost unbelievable. Don't overdo it, though, because an excess of the lubricant may gather on the heads, mix with loose oxide particles, and lift the tape away from the head pole pieces. — J.G.H.

MANUFACTURER'S COMMENT: We originated the name Jockey Cloth for our record cleaning cloths, and the Jockey refers to the omnipresent disc jockey. When we developed the tape cloth, it was only natural that we should call it the Jockey Cloth for Tapes.

We would also like to point out that these cloths are washable, per instructions on the package, without removing the active ingredients from the cloth, so their useful life is quite long. We could not, however, expect TITH to make a Betty Furness highfidelity laundry test.

Thanks. - ED.

GRAY'S NEW "MICRO-BALANCED" DUAL VISCOUS-DAMPED HIGH FIDELITY TONE ARM

... guarantees maximum tracking stability, because of sealed viscous-damping on *BOTH* vertical and horizontal pivots, and complete static balance around the vertical pivot.

The Gray "Micro-Balanced" arm offers a maximum of compliance and responsiveness with all popular cartridges that is beyond the experience of most High Fidelity enthusiasts.

Adjustable stylus force from zero up to 15 grams!

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THE GRAY MANUFACTURING CO. . ARBOR ST., HARTFORD, CONN.

The ever-fresh pleasure that precision-reproduced music brings can be yours with a JBL Signature Extended Range Loudspeaker. Whether your plans are most elaborate, or the JBL beginnings of your high fidelity system quite modest, one of these five JBL Signature units will be just right for your needs the 15" D130, the 12" D131, the 12" D123, the 8" D208, or 8" D216. Their highly original, excellent basic design; solid, rigid parts; and precision assembly give you music of a rare, clean, crystalline clarity. There is nothing quite like a JBL Signature Extended Range Loudspeaker ... nothing so continuously pleasing for your adventurous years of extensive listening. If you will write, we will be happy to send you a free copy of cur complete catalog.

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tape techniques — part 3

The Editor's Earache



by JOEL TALL

IN VIEW of the many ways to edit tape, it is not unreasonable to suppose that a tape editor may be recognized by his work just as a musician may be recognized by his interpretation of a score or an artist identified by his brush strokes. Ordinarily, however, an expert editor's work cannot be noticed; the better he performs his function the less audible evidence there is of editing. One of the ways in which editing can be made practically undetectable, except by spectrographic analysis, is by the employment of what I call "the limitations of hearing."

(I'd like to suggest, at this point, that a serious study of hearing would benefit any devote of tape editing. One of the best sources of information is *Hearing*, its *Psychology* and *Physiology*, by Stevens and Davis: New York; John Wiley and Sons, Inc., 1938.)

Although, ever since the Age of Enlightenment at least, men have believed that "the proper study of mankind is man," we have so far succeeded in accumulating comparatively little information about ourselves, especially of our senses and our nervous systems. We do know enough, however, to guide us in our employment of natural faults in normal hearing as an editing technique. Yet in order to be able to deceive the hearing of others, we must be careful not to deceive ourselves while editing. For that reason it will probably be best to begin our researches with a description of how to avoid hearing fatigue.

Most people, especially young people, have extremely sensitive hearing. Most of us never realize how good our hearing is because we live in more or less noisy surroundings; but good, normal hearing is almost sensitive enough to detect the noises created by particles of air colliding with each other in otherwise empty space. That is the sensitivity, approximarely, of good hearing at frequencies around 2,500 to 3,000 cycles per second. Our ears, fortunately or unforrunately, depending upon one's point of view, are not "flat." Hearing sensitivity decreases both at low and at high frequencies, a fact which can be verified by examining the charts on audibility published by a dozen different experimenters. Whether our hearing evolved in this way to protect our nervous systems from too much irritation or whether nature did a poor designing job, I do not claim to know.

We have to make certain, when editing, that we hear every sound that has been recorded on the tape. Furthermore, we should hear everything clearly without making an effort to hear. I believe that trying too hard to hear a particular sound obscures over-all hearing efficiency. It is possible, with the acute sense of hearing we possess, to focus our hearing on one sound, or voice, or noise, to the exclusion of others. Anyone who has worked in a machine shop, or other very noisy place, can testify to this fact. The first few days in a machine shop you hear nothing but noise; after a while you find you can carry on normal conversation without much difficulty. But when you have to try too hard to hear a particular sound or series of sounds your hearing system tires quickly. And once we have become affected by auditory fatigue, we do not hear normally and, therefore, cannot edit without making serieus errors.

It is impossible for me to describe how you would be affected by hearing fatigue. Since it is a phenomenon that rakes place partly in the physical hearing system and partly in the brain, it must affect different people differently. In most individuals several reactions take place when their hearing gets tired. The time sense for duration of sounds becomes defective. A quarter of a second seems two seconds, or so, long. The sense of pitch cannot be depended upon; it may go up or down, so that sounds may appear flat or sharp, depending upon the frequency of the sound that has caused the fatigue. My own reactions to sounds, when I am fatigued by too much editing, may indicate what yours might be. Low-pitched sounds then appear flat and distorted, with no "roundness" of tone; frequencies around 3,000 cycles per second sound shrill and disagreeable; loud resonant tones cause actual discomfort close to pain. Another strong effect of auditory fatigue - possibly close to hallucination - is that when acutely fatigued you may not hear short-duration sounds at all.

Just so that this effect may be documented for the use of researchers in tape editing, may I tell you how it happened?

I had been editing a radio quiz program, and had been working steadily for about five hours. Things were progressing more or less satisfactorily and I was driving myself to get the show finished. We came to a sequence where applause died away, followed by the quiz master's voice. My director said, "Cut out that noise." "What noise?," I asked. I reeled the tape sequence back, turned up the volume on the monitor speaker amplifier, and listened. I heard no noise! There was no time to quibble. I did something I never did before that time or since. I cut the tape without hearing the sound I wanted to cut out, but could not hear. I used the director's ears instead of my own. I saved the bit of tape I clipped out, however, and the next day played it back. It was a noise, a mike noise, lasting in all about onefifteenth of a second. I did not hear it, obviously because of hearing fatigue.

Since auditory fatigue can reduce your hearing efficiency by half or more, it must be avoided at all costs. Especially if you have to earn your living by using your ears, you should take very good care of them. Don't overburden your hearing. Should any music critics have wandered into reading these pages, may I respectfully suggest that they not try to listen to music critically when tited mentally? There is good cause to suspect that mental fatigue, even though totally unconnected with heating, may have distortive effects on the perception of sound. One way to avoid hearing fatigue is to stop listening to anything — put ear plugs in your ears and read a good book or take a nap.

To reduce auditory fatigue - if the foregoing not altogether facetious suggestion is not practical - make it as easy as possible to hear what you have to listen to. It will be remembered that our hearing is comparatively less efficient at low frequencies and high frequencies than it is from, say, 800 to 3,000 cycles per second. It should be realized also, that it is at low and high frequencies that we must hear sounds most easily while editing. For, while turning tape reels by hand to locate a cutting point, we must hear plainly all the very low frequency grumbles which delineate the vowel sounds, and all the high frequency hisses and clicks which constitute the hard consonants and lip sounds. Some of the vowel-forming sounds are normally in mid-frequency range, but the most significant of these are at quite low frequencies when the tape is hand-turned. Thus our indicated course is clear. We boost both low and high frequencies, with as little attendant distortion as possible, to provide easy, unstrained listening. Each individual will have to find out for himself how much boost at either end he requires. When the right balance is reached, it will be possible to listen just about twice as long without the onset of fatigue. Balance the sound so that you are comfortable. Incidentally, I found that I required very little bass and treble boost to double my efficiency. I raised both ends about 4 db, sloping down to the center frequencies. I also found that I could then cut down the over-all volume and hear just as clearly with less fatigue. Loudspeakers more or less efficient at those frequencies may require less or more boosting than mine needed. One should also make certain that the editing room does not complicate the recorded sound unnecessarily by adding undesirable reverberation. There is no need to be unduly fussy about it, but the room should be comparatively "dead" and free from noises that might mask hearing and cause inexpert or erratic editing.

Now that we have reduced the possibility of incidence of auditory fatigue, we are ready to find out what idiosyncrasics of hearing can be used to make editing easier. One of these quirks of hearing has to do with what is heard as noise and what is heard as a musical sound. I am familiar with the definition of musical sound as enjoyable sound. Unfortunately, that definition can no longer be depended on. There are many noises used in music which, at least to me, are not enjoyable, though they are rightly classed as musical sounds. Shall we be daring and, at least for the purposes of this discussion, define musical sound as any sound with musical pitch? And, obversely, define noise as a sound without musical pitch? We agree with most acousticians. Now, if you went outdoors and listened to the sounds you had considered to be noises, you would find that many, if not most, have a musical pitch. In fact it would probably be very difficult to find a noise without a musical pitch. The musical pitch definition is not going to help us very much in tape editing. It points the way, however, to another related conception of sound. What sounds natural - or unnatural - to us? For the purposes of this exposition, sounds that begin gradually and stop gradually do not disturb our hearing unduly and, as far as the hearing sense is concerned, are of a musical nature. Sounds that begin or end abruptly, if they are very short in duration, are to be classified as noises. Actually it is whether or not we fully hear the sound that determines, generally, whether it is a noise without pitch or a musical sound. Normal hearing requires a definite time in which to recognize sound. If there is insufficient time for recognition to take place, we hear a noise or a click; if there is still less time, we hear nothing - no sound at all.

You can prove the above for yourself, as I did, by means of tape editing. Record some sound - a pitch pipe will do very well-on tape. Then insert a little of this recorded tape between two sections of clean tape. If diagonal cuts were used in splicing the tape, the sound will start and stop smoothly as it passes by the playback head. Now make the same experiment using 90 degree splices. You will probably hear a tiny click as each 90 degree splice passes the playback head. The lower the frequency of the recorded tone the more pronounced the clicks will be. The clicks are noises created in one's hearing by the inability of the ear to recognize the sound as musical owing to the confusion set up in it by the too rapid onset or cessation of sound. The car can recognize musical sounds at middle frequencies in about 1/100 second, while it takes longer for recognition at low and high frequencies. At a tape speed of 15 inches per second, a 45 degree tape cut of 1/4-inch tape is about 1/60 second long, which means that sound is being faded on or off in 1/60 second. At 71/2 inch per second speed the same diagonal cut, which is 1/4-inch long, takes 1/30 second to pass the head, and is certainly long enough to avoid creating a noise in the hearing.

There is rarely any need, except possibly when editing tape at 30 inches per second speed, to cut tape at an angle more acute than 45 degrees. It may be necessary, when cutting tape synchronized with film, to cut at 90 degrees, but then we would avoid cutting within any sound.

Another fact of hearing has proved quite useful in editing tape. I refer to persistence of hearing. Sound persists in the hearing various lengths of time, depending largely upon the intensity of the sound attacking the ears. Persistence of hearing is an everyday normal experience, and lasts, according to editing experience, from three- to four-hundredths of a second. We may utilize hearing persistence to create what I have called a "persistence-blend." In a persistence-blend we cut from one sound to another sound of lower intensity, leaving no blank tape between. For instance, if we cut a sequence from an isolated handelap of applause directly to succeeding voice, with no space between, it would sound as if the applause continued under the voice.

There is another handy way to fool the listener. An incongruity in background sound is shocking to the hearer; it may shock either to tears or laughter, but it does not remain unnoticed. Now, suppose you had to edit together two segments of tape of the same voice recorded in different backgrounds. At the point where the background sound changed, the listener is startled. Of course, the editor has to cut the section properly, not in the clear background, but close to the voice sound; and still it is not a good job if it does not sound as if it could have happened that way. The proper way to achieve one's end is to shock the listener at that point with a noise in character - a mike noise, a cough, a door slamming off stage - and he will promptly forget about the background change. It seems that the human animal can rarely keep two things in the forefront of his attention or memory at the same time. This bit of legerdemain can be mighty handy in documentary editing.

Occasionally, in cutting a word out of tape and closing up the gap, we splice two meaningful sounds too close together. This kind of editing, which should be used only when we want to create a persistence-blend, as above, can confuse the listener. For, when two words are edited too closely together, we hear a third sound between them, which is possibly a result of persistence added to nonrecognition. I have no way of analyzing this resultant sound; however, it can always be eliminated by the insertion, between the two words, of at least $\frac{1}{4}$ inch of background sound taken from the same tape sequence. The $\frac{1}{4}$ inch, of course, refers to 15 inch per second tape speed. At $7\frac{1}{2}$ inch per second speed, one would need to insert only $\frac{1}{8}$ inch of tape cut at a 45 degree angle.





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TYPICAL FREQUENCY RESPONSE OF VRII CARTRIDGE MEASURED ON A CONSTANT VELOCITY BASIS

GENERAL 28 ELECTRIC

HIGH FIDELITY MAGAZINE

AUDIO FORUM

SIR:

I am using a Garrard RC-80M record changer with a GE RPX-052A cartridge. Recently, I have noticed that some of my records, after being played, have a sort of moirelike spiral pattern running through the grooves, which is visible in the reflection pattern when the discs are viewed at a sharp angle to the light. The stylus, a GE diamond replacement, is practically new. What could be the cause of this trouble, or is it a normal condition?

I have noticed it only on certain brands of records — especially on discs in which an effort seems to have been made to squeeze in the maximum possible amount of music.

Would another cartridge, in my present changer, stnp the apparent damage to my records, or would it be advisable for me to purchase a transcription turntable and arm, with a more expensive cartridge?

Kenneth Slapin Norwalk, Conn.

Several things might be causing the spiral pattern that appears on your records when they are played.

First, your pickup stylus force may be set too high. For the GE cartridge in a Garrard changer, stylus force should be between 6 and 8 grams.

Second, the lateral bearings in your pickup arm may be binding and exerting too much pressure on the groove walls. Check for freedom of arm movement by unplugging the cartridge shell from the arm, and then tilsing the changer slightly from one side to the other. The arm should swing back and forth without visible binding.

If your record changer bas sufficient rumble to be felt with the fingertips placed on the metal motorboard chassis, this could well cause your trouble, and if this is the case, the changer should be repaired. Finally, if there is any observable tendency toward acoustic feedback from your speaker to your phono, this also could cause the pattern you observe on your records.

If none of these suggestions seems to help or to remedy your trouble, you may have to purchase a new turntable and a transcription arm, or a more compliant pickup cartridge.

SIR:

I have two Telefunken U-47M microphones and an Ampex 401A tape recorder, and thus far I have stayed with single-mike recording technique. However, I will soon be making some tapes of organ, orchestra, choir, and soloists, so I will want to use both mikes at once.

The problem is that of obtaining a 200-ohm low-impedance input mixer, and I wondered if ynu might supply me with a schematic for such a mixer? Requirements are: two channels, 200 ohms input and output impedance, frequency response from 30 to 16,000 cycles, and no hum.

Gene M. Silvester Cleveland Heights, Ohio



T

Here is the schematic diagram for a two-channel low-impedance input mixer for use with your Telefunken microphones. There is an insertion loss of 6 db due to the use of this mixer circuit, but the high output of the Telefunken microphones will more than compensate for this.

SIR:

I would like to know the difference between a potentiometer and an L-pad. Externally they look similar, so are there any applications in which you can use a potentiometer in place of an L-pad?

> Jobn R. McAulay San Francisco 16, Calif.

An L-pad is essentially the same as a potentiometer, except that it is used in terminated lines where the input impedance to the pad must be kept constant.

A potentiometer, connected as a simple variable voltage divider, will offer varying load to the source feeding it, unless the output from the potentiometer is connected to a high enough impedance to render negligible its loading effect on the control.

Thus, a potentiometer is generally

used as a volume control, where the very high impedance of the following tube grid has little or no effect on the impedance presented to the output from the preceding stage. An L-pad is used where a low-impedance line is terminated by a resistive or reactive load (such as a pure resistance, a matching transformer, or a londspeaker), in cases where the impedance presented to the source is to be kept constant, but where the output impedance from the pad to the terminating component may vary without adverse results.

When both the input and output impedances from the pud are to be kept constant, a T-pud is used or, if the controlled line is balanced to ground, an H-pad is used.

SIR:

A number of AM-FM tuners provide a choice of either a 72-ohm or 300-ohm antenna input. If, as commonly advertised, the 72-ohm input requires only half the signal strength for the same db quieting, the use of this input would seem to be advisable, particularly in fringe areas.

How can one reconcile the apparent efficiency of a 72-ohm input with the disturbing fact that this type of antenna is seldom advertised, and the "less-efficient" 300-ohm type is on sale throughout the country?

How significant is the fact that 72ohm coaxial lead-in cable has a greater signal loss per linear foot than has 300ohm twin lead?

> Victor Vine Canandaigua, N. Y.

There is no advantage to using a 72ohm antenna input unless, for reasons of noise reduction, you need the shielding provided by a 72-ohm coaxial leadin cable.

In terms of performance, the operating sensitivity of a tuner is identical with a 300-ohm or 72-ohm antenna, because the 72-ohm line delivers half as much voltage to the tuner.

The signal loss that takes place in a 72-ohm coaxial lead-in becomes significant only when it is run over long distances of 20 feet or more.

SIR;

l was getting terrible distortion from my hi-fi system, with shrieking treble and boomy bass, and was for some time

Continued on page 127

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AUDIO FORUM

Continued from page 125

unable to find the source of my trouble. I had the amplifier and preamplifier tested by a local radio repair store. and they said that all of the voltages and resistances were normal, so the units must be working properly. However, I wrote to the manufacturer of my amplifier and control unit and asked if he had any suggestions. He said yes, he had, and that if I would return the units to him he would be glad to remedy the trouble for a nominal charge.

Against my better judgment. I returned the units to the factory, and two weeks later I got them back, in perfect working order. All the distortion was gone.

Now what I want to know is, why did the radio repair store tell me the units were fine, when they obviously were not? The technicians at the store are first-class TV repairmen, and since TV sets are much more complicated than amplifiers, those technicians should certainly know how to repair amplifiers. That is, unless they just aren't interested.

Why should the radio store try to mislead me? They talked themselves out of the sale of several tubes and a good many hours of labor charges, so I can't figure out what happened.

Tell me, what happened?

Harvey Clymer Queens, N. Y.

Many of the defects which arise in high-fidelity components are not detectable by means of the test instruments available to the average TV repairman, so it is more than likely that your local TV store simply fuiled to uncover the fault in your amplifying equipment.

High-fidelity component testing requires specialized instruments, such as intermodulation dissortion meters, square wane generators, and pulse generators. as well as a specialized and thorough knowledge of andio circuitry. There are very few TV repair stores whose employees have the qualifications. let alone the instruments, to service high-fidelity components, and your local repair shop was probably no exception to this rule. There are, in fact, many cases on record where servicemen who are unfamiliar with current high-fidelity circuitry have unwittingly done serious damage to cosily components, through attempted circuit modifications.

When high-fidelity equipment is suspected of being defective, it should be taken to a repair agency that specializes in audio repairs, or should be returned to the factory.



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At a recent public demonstration, staged by the Audio League at St. Mark's Church, Mt. Kisco, N. Y., the recorded sound of an Aeolian-Skinner organ (from stereo tape) was instantaneously alternated with that of the "live" instrument. The reproducing equipment selected included four AR-1 speaker systems. Here is some of the press comment on the event:

The Saturday Review (Dovid Hebb)

"Competent disteners, with trained professional ears, were fooled into thinking that the live portions were recorded, and vice versa.... The extreme low notes were felt, rather than heard, without any 'loudspeaker' sound"

AUDIO (Julian D. Hirsch)

"Even where differences were detectable at changeover, it was usually not possible to determine which sound was live and which was recorded, without assistance from the signal lights..., facsimile, recording and reproduction of the pipe organ in its original environment has been accomplished."

audiocraft

"It was such a negligible difference (between live and recorded sound) that, even when it was discerned, it was impossible to tell whether the organ or the sound system was playing!"

The price of an AR-1 lwo-way speaker system, including cabinet, is \$185.00 in mahogany or birch. Descriptive literature is available on request.

ACOUSTIC RESEARCH, INC. 24 Thorndike St., Cambridge 41, Mass.

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EXCUSE MY DUST

Continued from page 51.

song in the Flying Dutchman, but this opera is not in the Metropolitan's repertoire at present.

I find it interesting that two composers treating the same subject can provoke such different cleaning jobs: In Aida, anyone who invokes either Isis or Osiris almost invariably provides brushing music, but one cannot possibly brush to "O Isis und Osiris" in the Magic Flute. For a long time I considered both this invocation and "In diesen beil'gen Hallen" too noble to clean to at all, but recently I came to the conclusion that one might use them for cleaning something extremely rich and grand, like a large Italian marble table.

By now you will have begun to grasp the intricacies of this problem. There is some good cleaning music in almost every opera (except *Pelléas et Méli*sande, where there is none whatsoever), but the composers scatter it planlessly here and there, and often, when they get hold of a nice cleaning bit, show a frivolous inability to stick with it until I can finish whatever it is I am doing.

What a master was Offenbach of all sorts of cleaning music! And how considerate a composer! Tales of Hoffmann is studded with injunctions like "Je commence," "Silence," "Attention," or "Violà," handy indications that one is about to switch jobs, which allow a moment to put away the broom and get out the dustpan. Yet how haphazardedly is his cleaning music placed!

Act I contains, not one, but two, stirring brushing pieces. However, in the middle of telling the story of Klein Zach, Hoffmann interrupts himself to dream of Stella, and I must interrupt my brushing to cut the stems of flowers. Act II opens with a splendid scrubbing or mopping march, but the scrubbing or mopping must be started and stopped three times. In between, I do the Venetian blinds with Olympia, and sort the laundry to a little waltz so intoxicating that it must be used for something abandoned. There is the Barcarolle, perfect for dusting or polishing. If one does not dust to something lyrical and leisurely, one misses rungs. In Act IV, there is Frantz's song for complaining about cleaning.* There is even some nervous, ominous music for taking medicine, or one's pulse. One can get almost anything one can think of done during Tales of Hoffman - in the most senseless order imaginable.

Sometimes a composer makes almost

^{*}An increasing and useful selection. I can think of only two others of this type: Berta's aria in the Barber of Seeille, with its appropriate "O che casa in confusione," and (stretching a point) Leporello's "Notte e giorno jaticar."

impossible demands. The first act of Rigoletto requires superhuman spryness. Chords of grim warning, which almost say "Get on," open the opera. Cleaning is irrevocable. Gay brushing music quickly follows, and almost immediately thereafter, "Questa o quella," music for scattering. There are two possibilities: sort the laundry or clean your rugs by strewing on them one of those damp powdered rug-cleaning messes. Now you need something to brush the rug powder in to, but instead you get a quiet and graceful little minuet, with the Duke singing, and you switch quickly to arranging flowers or ironing. Rigoletto begins to tease Ceprano, and you begin brushing. You brush and brush and you keep it up at a furiously brisk tempo through "Tutto è gioia, tutto è festa." Suddenly Monterone enters to disturb the vile orgies. Gloom descends, and with it a change of job - for instance, cleaning under the radiator. If you have been working as vigorously as Verdi would wish, you have to. A lot of rug powder has gone under there.

The trick with *Rigoletto* is not to get up during the chorus at the end of the act. The next act opens with Sparafucile, whose music is very low down and also meant for cleaning under something. But frustration is ahead. "Caro nome" is coming up, and if your radiator, as is customary, is under your windows, you will get it all dirty again when you climb up with Gilda and wipe the dust off the Venetian blinds.

With practice (I have learned to put a newspaper over the radiator during the scene between Rigoletto and Gilda and the indentification of Walter Maldé) one could adjust to the first act of Rigoletto. Practice is not what one gets, though, because next week we may have Götterdämmerung, an entirely different kettle of drums.

It begins with Norns, and Norns are impossible to clean to. Then it continues without a break for at least an hour and a half, almost all of it possible cleaning music including top notch bits like the oath of blood brotherhood (brush the hearth). But it is too tiring to clean steadily through this act and the next one and the next one. In the second act, we have Hagen and Alberich, both cleaning-uoder-things characters, a workout with the broom (vassals), very heavy scrubbing ("So soll es sein! Siegfried falle," etc.), and a good deal else.

The longer Wagner operas require another change of habit. I spend the first act of Götterdämmerung on some slow dirty job I have been putting off. For instance, I take all the burners off the stove and clean them with steel wool. I clean everything else in sight slowly, using Waltraute's more somber utterances for whatever is burned on. This job requires running the water in the sink occasionally, which in normal circumstances I would only do during the Opera Quiz. But with the Rhine theme Wagner has supplied snatches of built-in running-water music. If I have to run the water for any length of time, I use Siegfried's Rhine Journey.

One helpful feature of the Ring cycle is those moments when someone sits down and tells, not only the whole story of his life, but of everyone else's. They resemble the synopses published with serials, and I think Wagner must have needed them to refresh his mind about who had borne who by whom, where everyone was, or who had recently become a dragon. In these passages, one zips through all the leitmotifs from the previous operas, usually ending balefully with "Das Ende!." For example, in the second act of Die Walkure, Wotan gives a run through of everything that happened in Das Rheingold for the benefit of Brünnhilde, who wasn't around in the first opera.

In some cleaning jobs, like washing the outside of windows, it is difficult to hear the radio and these synopses are just right for them. If you have washed the inside of the windows during *Das Rheingold*, next week you can pop out to do the other side as soon as Wotan sits down. But the Metropolitan also seems to be aware that repetition is involved, because they are likely to cut. In this case just as you get settled on the sill and make a few swipes, you hear "*Das Ende!*" in the distance and have to come in again.

Parsifal is a real problem. It is not good cleaning music, and it is tiring, because we go through everything twice, and because it comes in early spring when I am in need of sulphur and molasses. Partifal makes me want to sit down.

My solution may not be possible for everyone. I have an old-fashioned desk with four large drawers. Each drawer has two large brass encrustations with handles and one large keyhole encrustarion, as well as other bits and pieces of brass here and there. I unscrew them all one by one, take them off, and polish them. Then I screw them back on. One should wear rubber gloves during *Parsifal.* It is hard on the hands.

What I want for the close of an opera is as specific as what I want for the beginning, and I get it just as seldom. First I want a long, dull intermission, for vacuuming and for running a bath—by now I am pretty dirty. Then an elevating finale to listen to while soaking in the bathtub. The end of Gounod's *Faust* is perfect: the harmonies are so uplifting one hardly needs soap. I also like the sextet at the end of *Don Giovanni*. Its opening

Continued on next page



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EXCUSE MY DUST

Continued from preceding page

is fresh, exact, and sudsy. Fugues are very nice for washing. Even though one is worn out with the terror of the Don's finish and the effort of cleaning one feels that life can begin anew. But unfortunately it is not preceded by an intermission, and it is much too short. How could Mozart have known that 1 don't like to take a bath in five minutes?

In the fullness of time and the march of the operas, everything eventually will get done. But one must accept the fact that there are certain pieces of music one cannot clean to, and that one may have to wait some time before being able to go at some specific task.

Besides Norns, one cannot clean to the following: Erda, Gurnemanz, Boris Godunov either giving political instruction about alliances with Lithuania or going mad, and *Elektra*. If you try to clean to *Elektra*, you will have a nervous breakdown. Vassals, Valkyrie, apprentices, choir boys (*Tosca*), sailors, Figaros, and any happy peasants provide good cleaning music.

In Italian opera anything which begins Zitti, zitti, or basta, basta, or piano, piano, or even piano pianissimo, as in the opening of the Barber of Seville, is intended for brushing.

The perfect selection for carpet sweeping is the chorus in the first act of *I* Pagliacci, which opens "Din, don." Although this chorus seems to be an effort to get everyone into church. I know it is for carpet sweeping because it is introduced by several vigorous "Andiam's," intended to get me started.

The Siege of Kazan in Boris Godunos is for sweeping with a broom. The Anvil Chorus in *Il Tronatore* puzzles me. Clearly it is meant for beating rugs in the backyard, but this is a dated form of cleaning, not possible in a small apartment.

There is one moment in the opera repertoire when you can run a sewing machine. If you can do it while giggling and thinking about love, so much the better. This, of course, is the atelier scene in *Louise*. Louise also contains meal music and ironing music, but neither selection is as apt as the sewing machine one.

Puccini arias are perfect for ironing. One needs some lush, lyrical, and isolated selection to get one through a cotton blouse or dress. Puccini is particularly good if one does not have a steam iron and has to dampen things. One can cry automatically, gently, and without despair, which helps in the dampening.

But the Flower Duet in Madama Butterfly should be saved for extraspecial efforts to fix up your place, flowers, candles, and even, if you have one, running up a flag. Salome's Dance should be used for going through the closet and throwing out clothes. If you have the courage, it will serve you well, because you have to throw something out. The frenzied drive of the dance prevents any second thoughts like "This might come back into fashion," or "I could change that neckline."

My compromise with the Metropolitan is complete, but I continue to dream about the perfect opera. In fact, I am working on the libretto, and any composer who is interested should get in touch with me. There is one proviso, and he may not like it: I must be allowed to say how long each aria, chorus, etc. will take. But it will be inexpensive to produce, since it will require only one set — my apartment.

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I am upset by the baritone, and I must have a mezzo helicate intermezo, helicate intermezo, whom she is secretly in love, but I suspect it), and whether Glass Wax, Windex, or soap and water are better for cleaning mirrors and the glass over pictures. She demonstrates how she does it (I can use a little help). I show her my method. We comment on them both. The aria is climaxed by a happy burst of agreement in a major key her method is better.

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Continued from preceding page

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ITALY'S OPERA

Continued from page 46

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I am upset by the baritone, and I am aware that I must have a mezzo soprano. During a delicate intermezzo, in which descending sixteenth notes on the violins indicate my uncertainty, I go to the telephone and call my best friend, who lives upstairs. She says she will be right down; she is right down; and she is a mezzo.

I greet her and we begin a charming feminine duet, during which we discuss the behavior of the baritone (with whom she is secretly in love, but I suspect it), and whether Glass Wax, Windex, or soap and water are better for cleaning mirrors and the glass over pictures. She demonstrates how she does it (I can use a little help). I show her my method. We comment on them both. The aria is climaxed by a happy burst of agreement in a major key her method is better.

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I am sorry if your interest has been aroused, but I am not going to tell you any more. Someone might steal my plot. It is intricate; something is going on every minute, and I clean everything. I even clean during the choruses, when a group of my friends comes in, because they have heard me on the radio

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put together. Any opera house must calculate on spending about twice what it takes in: that seems to be the cruel verdict of experience. If the Italian government has to pay out \$8,000,000 a year to keep these opera houses going, as it does now, it is therefore entitled to expect those houses to take in an equal sum - which they do not. The \$8,000,000 has been drastically cut and may come out at about \$2,500,000 but the big cut will hit all theaters alike, including those which (like the Scala) could manage perfectly well if the government had merely let them alone. It will virtually suppress most of the others

Whether it is sound economics or not, every opera season ought to earn half of its keep. The soundness of the principle is not really in question: it merely seems to be, by and large, the experience of all first-class European houses, not only in Italy but in France, Germany, and Austria. What we find in Italy is that only one opera season, that of the Scala, pays half of its own expenses out of income. All the rest demand of the national government subsidies running up to eighty-six per cent in Florence, eighty-three in Venice, and so on right through the list. It is not at all surprising that the government has decided to call a halt, without having any scheme ready to put in the place of the system now falling apart, and without facing the implications of the figures themselves. What these figures mean, if they mean anything at all, is that in some towns there is literally no public for opera. A public which is only willing to pay fourteen per cent of the cost of its short opera season cannot be called an opera public, and the percentage of citizens who would suffer if there were no opera would be very small.

I have named one hidden malady in the case, which is local or municipal pride, and it is very strong. It makes the rational treatment difficult: that treatment which would consist in government support for three or four great theaters only, the ones in the largest cities, the ones where a true opera public of consistent size is proved to exist.

There is another malady involved which inheres not so much in the citizenry as in their musical and artistic mentors: that is, the overambitious nature of some seasons given. In most of these towns the general public has little interest in modern Russian, French, or German music and will not spend money to hear it, yet the conductors and musical dictators of each town feel that they owe it to their own professional standing to include a high proportion of such work. This is the egoism of the artist and in the smaller cities it

Continued on next page



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ITALY'S OPERA

Continued from preceding page

means empty houses, albeit with long and very learned reviews in the papers. Stravinsky, Debussy, Poulenc, Alban Berg, and even Mussorgsky are outside the interest of the ordinary public in places like Palermo or even Bologna, and we wonder what the good folk of Reggio Emilia, last spring, thought of Khovanshchina, which was one of the operas put on for the centenary of their old and famous theater. What is the good of this? An opera played for the reviewers (of whom there may be two in a town, one of whom sends a report also to Milan and the other to Rome) is not contributing much to musical culture or public pleasure.

A century ago old Verdi, the father of every theater in Italy so far as the box office is concerned, had some long talks with his political hero Cavour about this very subject. He had a scheme; and if Cavour had lived long enough, it might have been put into effect. It would have provided for three opera houses with national support and control: Milan, Rome, and Naples. The first two would, of course, have had longer seasons and no doubt more lecway in production, but all three were to have offered free public instruction in choral singing and orchestral playing, deriving their permanent "masses" from the people themselves. A system of competitive examinations would have provided those elements (chorus and orchestra) in which Verdi felt the Italian theaters were most deficient. (These are, of course, also the most expensive: they account for about sixty to sixty-five per cent of the outlay). Verdi was not in the least worried about soloists, of whom there is never a deficiency in Italy: what he wanted was a sturdy, permanent structure for each of the three leading opera houses so that they could plan and carry out a proper musical season every year.

Verdi's scheme never would be accepted nowadays without loud outcries from eight or nine other cities (at lease), and every politician is susceptible to these local agitations. But since it sounded sensible to Cavour, why does it not sound sensible today? It would not mean no opera for the smaller places; they would have what they paid for, which would in general mean traveling companies for short engagements. At present the mere hint of such a thing brings shricks of outraged pride. The subsidy habit is quickly acquired.

In the two great houses of Milan and Rome anybody can see why modern works, new operas, difficult and experimental though they may be, are a necessity. The public of Milan, at any rate, are accustomed to novelties and would

think it a very poor season indeed if they did not obtain about twenty-five new productions of various kinds (not all full-length operas - sometimes short works or ballets). This is a tremendous amount of new work and the Scala is the only theater in the world today which keeps to such a standard. It may not be able to do so much longer. But one weakness of intellect in the opera world comes, precisely, from the Scala's very high standards: every theater in Italy gazes longingly at the Scala and attempts, at whatever distance, to imitate its mountainous achievements. That is why quite small towns (or their musical mentors) insist on playing unfamiliar and difficult music to empty seats, because "it was done at the Scala." The difference is that the seats at the Scala are not empty.

If you start to inquire why the seats at the Scala are not empty, whereas everywhere else (even in Rome) it is a problem to fill them, you run into the broad underlying facts which the present absurd system of opera is trying to ignore. The Scala draws on a huge, rich public accustomed to its opera house, proud of it, willing to pay for it. There are a million and a quarter (minimum) of legally registered Milanese, with another half million in the densely packed towns of the immediate neighborhood. Rome's census figures, taking in an enormous area beyond the city proper, are higher (at last count 1,600,000 and a bit more), but they do not correspond to the same kind of reality. Much of the total is transient and an enormous proportion of it is recent, without a fixed attachment to the capital. These two great opera houses, the only two which could reasonably count as national, are very different economically: the Scala alone earns more money in a year than all the other state houses put together (including Rome) and of course pays taxes accordingly. At the present moment it is fair to say that it has only one possible rival in the world, the State Opera at Vienna, but this aesthetic achievement is, fundamentally, economic. Milan pays, and would be willing to pay again and again if its money could be used for the advantage of its own great theater. As things stand now, the cuts in government aid will hit not only the empty theaters of Florence, Genoa, Venice, and the rest, but also the Scala itself, the best and most prosperous in Italy.

One further illusion ought to be mentioned — it, too, is a hidden malady because it does not show in the figures. Every argument on this subject brings up the foreign visitors, the tourists, for whom, it is said, opera is an essential part of an Italian sojourn. The papers

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ITALY'S OPERA

Continued from preceding page

carry reams of eloquence on this subject every time they wish to badger the government for local subsidies. The fact, of course, is a little different: we, the foreign visitors, do like to hear opera in Italy, but we like to hear good opera, and there are many cities where we are primarily interested in other things. Rome and Florence are so filled with the treasures of other arts that only the foreigner who makes a long stay who, so to speak, lives there - gets around to thinking of opera. Furthermore, the vast flood of tourist traffic in Italy, which grows larger every year, comes mainly in the summer when the state opera houses, with the single exception of the open-air Arena at Verona, are all closed.

To put it very bluntly, foreigners visiting Italy do not expect opera in Florence — I have heard American friends express astonishment that there was any such thing — and not many of them take the trouble to go when they discover it. At the same time the same foreigners would not dream of visiting Milan without at least trying to get into a performance ar the Scala.

The problem faced since last season will probably cause many of the smaller houses to close for a while and the big houses may be forced to curtail their work; but if it brings a permanent rational solution, in the long run Italy and music in general can only benefit. For the world at large the chief calamity would be if anything serious happened to the Scala in Milan, which sets the pace for everybody in these matters. The Scala is spending money at the rate of three million dollars a year and taking it in at just about half that. It therefore requires a million and a half dollars, or about a billion lire, from the government, and if this should be cut by twothirds, as is now threatened, the results would be felt far and wide. If the opera house at Cagliari, in Sardinia, a city of 170,000 inhabitants, had to close, some of its citizens would suffer but the damage to music in general would not be much: its brief season costs about \$125,000, of which the national govern-





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KLIPSCH & ASSOCIATES HOPE. ARKANSAS ment has to pay the greater part (more than eighty-five per cent). The same is true in many or most of the other places concerned, where time has shown that the opera public, if it ever existed, has turned towards other entertainments.

From the government's point of view it is a most unpleasant situation and may be handled in some makeshift way until the approaching general elections are over. That is, every one of these cities and regions which now receive opera subsidies might, conceivably, be influenced in the voting by whether or not the subsidy is paid. This seems strange indeed to a foreigner, but good judges inform me that many a man who never sets foot inside the opera house would vote against a candidate who was unwilling to subsidize that opera house. Italy's pride, in short, is bigger than its appetite, so far as opera is concerned.

Reventing, finally, to the theaters of most interest to Americans, we can say with all due caution that Milan and Rome can probably weather this storm for the coming season - the Scala because its situation is strong, economically and in its support from the powerful city of Milan; the Teatro dell' Opera in Rome because it is in the national capital. There is not much doubt that the city of Milan would, somehow, come to the rescue again, as it has in the past, if the Scala were in grave danger. although the city might very well resent the necessity. (If Milan's two per cent amusement tax went to the Scala instead of into the general pool, there would be no problem at all.) The Scala carns half of its keep and the Rome Opera a bit more than a quarter of its keep; they get about a million and a half dollars each from the government each year. Both receive income from recordings: at the Scala this has begun to be quite appreciable, with a down payment at the time of recording and a percentage of sales. They cannot depend on anything from radio or television because these interests, which are governmental and centered in Rome, maintain a stable orchestra and chorus of their own, hiring soloists and conductors when necessary. Television opera is in fact very good in Italy; in fact, in the midst of the summer's uncertainties and gloom, the radio-television authorities announced a prodigious series of productions for the 1957-1958 season, fifty-four operas in all — far more than ever attempted before. These include works of all schools from the eighteenth century to the day before yesterday; about thirty of the fifty-four belong to the twentieth century, and at least ten of these are new. A list which ranges so far and wide has something for every-

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ITALY'S OPERA

Continued from preceding page

body, which no resident opera company except the Scala could ever equal. Perhaps this is Italy's answer, or part of it; but this, too, bodes ill for the lesser opera houses. Some of those Florentines and Venetians who so conspicuously do not go to their own theaters may perhaps be getting their small annual quota of opera at home in an armchair.

The Scala, as the chief breeding ground for new operas and new singers, is a world concern; to curtail or suppress its activities would be a disaster felt far beyond the borders of Italy. But even the Scala draws upon all Italy for its new talent, and the blight which seems to be coming must affect that ceaseless recruiting and rejuvenation which keeps art alive. So, we are driven, at last, to the fundamental question: are opera and the opera public dying out in the land of their origin? We are bound to have some clue to the answer in this crucial coming season.

PANEYKO

Continued from page 57

The final listening quality of the complete system is achieved by circuit alterations in the control system and the early preamplifier stages, and these adjustments are entirely the results of protracted listening tests.

The war interrupted all manufacturing of sound equipment in Paneyko's plant, and put him to work on defense jobs, both in research and production: radar, ultrasonic, underwater equipment was developed, along with amplifiers for fire control. The indirect benefit from this government work was a consolidation of the plant's financial resources, and the development of methods for future phonograph production on a large scale. The trend, anyway, was away from the manufacture of luxurious special installations and towards serial production of high-quality systems in more moderate price ranges.

Since 1933 Paneyko has done for his own pleasure a great deal of recording off the air, all with equipment he himself built, including microphones and loudspeakers. His collection of the Toscanini broadcasts, for example, is probably unique in its quality and completeness.

Outdoor music systems also hold a great fascination for Paneyko - witness a barn behind the factory which houses the biggest speaker horn I ever have seen: seven by ten by four feet. Through the years Mirko has given well-attended outdoor concerts by the simple device

HIGH FIDELITY MAGAZINE

of playing his records over the mammoth horn which radiates its sound onto the wide lawn in front of the speaker shed. Nearby neighbors sit on fences; others from farther away join and bring their garden chairs. The result over the years has been a solid contribution to the musical education of the residents of Fairfield County.

After the war Paneyko ventured into the television market, with the dream of making TV sets as good as his sound installations. This venture ended hadly.

I've watched one of Paneyko's sets: never have I seen a clearer and more beautiful picture, but the TV public did not beat a path to his door - quite the contrary. It is quite possible that his main trouble was bad timing, for now there is some demand for high-quality custom TV. At any rate, he quit in 1950, after severe losses, and went back to small-scale, high-grade sound work. His plant and crew are small. Fifteen girls do all the production wiring, and there is a staff of three engineers, two technicians, and four cabinetmakers. One section assembles standard phonographs ranging from \$190 to \$1,700. Second in importance is the institutional department, where are produced specialized installations for colleges, libraries. schools, and conservatories. A small third division makes custom equipment priced from \$3,000 up.

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Mirko is probably the originator of the two-unit home sound system, with speaker enclosure separate from the other equipment. He was delivering units of this kind as long ago as 1930 to wealthy Bostonian homes. The second important feature he introduced is the remote control panel; he feels it is impossible to have good music reproduction unless your controls are where you actually sit and listen. For his speaker enclosures he uses infinite baffles; bass reflex cabinets he has no use for. If there are no space limitations - i.e., if he can plan on an aperture at least three by eight feet - he will use exponential horns. But it is in big outdoor installations that he can really bring to realization his most daring and superior designs.

Paneyko never uses the term high fidelity to describe his products, partly because he thinks the phrase has been misused and discredited, partly - and perhaps paradoxically - because it still seems to frighten some music lovers. Various of his customers, he reports, open conversations roughly as follows: "Can you give me a really good phonograph? But I want none of this highfidelity stuff!" Paneyko calmly reassures them, but privately he probably worries a little abour the matter. Thus far he never has done any advertising, and is proud of the fact that his reputation and

Continued on next page

High Fidelity speakers need not and should not be complicated. They must, however, be designed as complete systems including the enclosure rather than be a collection of individual units and cross-over networks, with the increased possibility of error and the lack of necessary equipment for tests in the home when finally assembled, Few people would obtain a motor-car by buying the engine, chassis, body etc. and assembling it at home. They would rightly regard this as a job for expert engineers - and so with loudspeakers, where naturalness not novelty is the desired result.

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PANEYKO

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business have been built up purely by word-of-mouth publicity and personal recommendations. But since he is now producing serial standard models, he knows that he will have to start advertising sometime soon, and it may be hard to avoid those two abjured words.

Occasionally he does some scholarly writing. The new Audio Engineer's Handbook, to be published soon by McGraw-Hill, will contain a section on Home Music Systems contributed by Paneyko. It is significant that the Handbook's editor-in-chief, C. J. LeBel (first president and present secretary of the Audio Engineering Society) could think of no better man for this topic than Paneyko, even though the organization teems with experts.

Mirko's musical background is well above the "engineering" average. As a youngster he had eight years of piano lessons and considerable opportunity to hear live chamber music at home. The Easton home, too, sees a good many musical visitors, some of them of great distinction Fritz Reiner is a neighbor: Erich Leinsdorf and Leopold Stokowski are among the guest book entries.

Sailing used to be Paneyko's favorite recreation and hobby - a rather expensive sport, which was curtailed after his unfortunate TV venture. For the time being, tennis on the court behind the house has to do, but from what I have seen of his burgeoning husiness. I should guess that before long he will be afloat again on Long Island Sound the only kind of sound, incidentally, of which he can be completely uncritical.

HI-FI PRIMER

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groove is not just a spiral track, however; it also has minute side-to-side variations that represent the sound stored on it. Some idea of this may be had by holding a record or several different records between yourself and a light source and examining their suraces; the visual surface patterns can be seen to be quite different where heavy and light orchestrations or wide variations in pitch are involved. The phonograph record is in reality a mechanically stored message. This message must be read in order to be used. When we read a book, we use our eye as a pickup or scanning device. When "reading" a phonograph record we must use a pickup that will respond to the medium being read. For this purpose, we require a needle which will go right down into the groove of the record and "feel" the variations.

A record obviously cannot produce music by itself. Its message must be "scanned" by the needle, and this requires that it be set into motion. Motion of the record is accomplished by placing it on a turntable. The turntable is driven by an electric motor which in turn must get energy from a wall outlet or other source. Our block diagram shows the wall plug as an input to the motor which, in turn, constitutes the mechanical input to the turntable. Note that we have now converted from the electrical energy of the wall plug to the mechanical (motor) energy needed to drive the turntable and impart motion to the record. Arrows are used to indicate this energy flow in Fig. 5.

As the record spins, the needle and its cartridge, when anchored to a pivot arm, follow the spiral path of the record groove. As the needle travels along the path, it is deflected from side to side by the mechanical groove modulations. If we now make a device that will produce electrical signals in accordance with the side-to-side mechanical variations found in the groove, we will be reading the mechanical message of the record in electrical form. The amplifier can make use of the electrical message. The phonograph needle which is part of the cartridge located in the end of the pickup arm is just such a reading



device; the cartridge itself is a translating device that takes in the mechanical variations of the needle and puts out electrical energy.

In old acoustical phonographs the mechanical energy imparted to the needle was converted directly to acoustic power. For many practical reasons such a system has severe frequency and dynamic range limitations. It is certainly an ultra-low-fidelity device at best. We find it expedient, for high-fidelity purposes, to change the mechanical variations of the record groove to electrical signals. Our amplifier is an electrical device only; it requires an electrical input and delivers an electrical output. But the pickup cartridge and loudspeaker are called transducers, since they convert (translate) signals of one form of energy to corresponding signals of another form of energy.

After the electrical signal from the input device is built up by the amplifier to the desired level, we must change it into acoustical energy if it is to be heard. This is the task of the loudspeaker, which is actually a special form of electric motor that reciprocates (moves back and forth) i-stead of rotating. The loudspeaker meter is connected to a large flexible di-phragm that imparts a vibratory motion to a sizable quantity of air. In this manner, sound waves which correspond to record groove modulations are set up in the air.

The block diagram of our system, in Fig. 5, shows the electrical amplifier broken down into two parts called the preamplifier and power amplifier. In practice, the preamplifier may be a unit by itself, or it may be included as part of a tuner or power amplifier. Preamplifiers are generally used to mix and select various signal inputs for the system. Special preamplifier input circuits are used to correct for response characteristics of records and pickup cartridges (different types of cartridges require different compensation), and to build up the very low electrical output of certain cartridges to the point at which it satisfies the input requirement of the regular preamplifier. The tone and volume controls for the system are usually included in the preamplifier.

In any magnetic type of phonograph pickup cartridge, a special compensating preamplifier input is always needed. A crystal phonograph cartridge does not actually require a special input, and, therefore, can be connected to any regular preamplifier input. The letters Mand E on the arrows, Fig. 5, denote the flow of mechanical or electrical energy as the case may be.

It is suggested that the novice, as a matter of practice, look over an actual phonograph system and identify the es-

Continued on next page



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HI-FI PRIMER

Continued from preceding page

sential elements which are shown in Fig. 5. A more experienced person might do well to examine several different systems to note the various ways in which the essential elements are combined or arranged. Fig. 4 represents an average system, since it involves a switchable selection of features. When a system is analyzed from the standpoint of its essential elements, the purpose of the system as a whole and the function of the gadgetry will become clear. Practice in analyzing typical systems will prove most valuable when one wants to get down to facts about one's own specific requirements. Complex systems and further details on block functions will be taken up in more detail later on in this series.

SO FAR, we have covered in a very general way the basic system elements for reproducing sound. We need essentially the same series of elements whether we intend to do this in a high-fidelity manner or whether we do it with fi not so hi. To understand the role of high fidelity in this picture, it is only necessary to consider the system to be a chain or series of elements through which the signal must pass. Each element hands the signal on to the next, and the signal will get pretty well banged up (distorted) unless it is handled carefully at every step. Any one step that is excessively poor will constitute the well-known weak link of the chain. It is possible, for example, to have high-grade phonograph and amplifier equipment and still obtain poor results by using a poor loudspeaker.

Not only must each element be suitable for high-fidelity response, but each must be integrated properly with the others. This requirement implies that one should make sure that input and output requirements are fulfilled, that hum and other interference are suppressed, and that all other important conditions are properly met. The purchase of expensive high-quality components is not in itself assurance of high-fidelity response, although such equipment increases the chances of success. Conversely, it will be found that surprisingly good results can be obtained from medium-grade components when they are properly employed.

The next article will complete our basic discourse by a description of the nature of sound waves. Terms such as frequency, amplitude, dynamic range, timbre etc. will be defined, and various typical forms of distortion will be described.



- PLUG-IN TV REMOTE CONTROL
- . TV TUNER FOR RECORDER OR AMPLIFIER



In effect a complete, super-sensitive TV receiver, minus high-voltage supply, sweep and video output circuits, and picture tube. Thus, it acts as a selfcontained remote-control system for every other function of your TV set. Just plug the single, thin, remote-control lead into your TV receiver, and you can select your station, fine-tune both picture and sound, and adjust picture intensity — right from your atmchair, to 50' from the screen. There is a separate loudspeaker in the handsomely styled "Duo-Master" cabinet — or you can use the speaker in your TV set or hi-fi system — or plug headphones right into the "Duo-Master" for private listening. When "Duo-Master" is connected to tape recorder thru cathode take-oft, speaker may be used for monitoring. "Duo-Master" features 3 IF stages. 2 audio stages, and 9 tubes plus rectifier ... including 6AQ5, 6T8, 6AU6, 3-6CB6, 6J6, plus RF and oscillator tubes in front-end turret \$79.50 net tuper.





COME, JOSEPHINE

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at the firepower demonstration, one at rehearsal and one at the show itself. which turned out to be a useful duplication. There was no problem about bomb concussion, and the mikes which were out by the target area (a thousand feet from the tape recorder) luckily escaped shrapnel wounds, but the photographic part of the show ruined him. At H hour minus 41 minutes two aerial reconnaissance planes swept in at the reviewing stand at 300 feet and took a wide-angle photograph of the entire audience, including Botsford and his tape machines at a table in front of the stand. At H hour plus 41 minutes a helicopter dropped down in front of the stands to deliver copies of the picture for all the spectators. The bird hovered and slowly descended, and the wind from its blades broke the acetate-base tape on the tape recorder. .

Finally, Botsford took his Tapak up in a two-seater version of the F-100, and recorded the sound *inside* a plane that was breaking the sound barrier at 43,000 feet. "It isn't much of a sound," he reported, "it's sort of a trembling, that's all. The pilots told me there wasn't *any* sound, I'd be wasting my time. But they're wearing those P-4 helmets, they can't hear what's going on inside the plane. And my feeling was, we were after the real sounds, whether they were dramatic or not. Even if they were disillusioning.

That's the thing about this record," Botsford continued, warming to his subject. "You hear other recordings of jets, they're rich in high frequencies. Well, jets aren't rich in high frequencies, they're rich in low frequencies. Bombs don't whistle, and air cannon don't sound at all like what you'd think. Almost all the recorded aircraft sounds there are, they're all tricked up. I'm not going to trick up anything. When I started for Eglin an engincer said to me, 'What do you want to go all the way down there for? I can make a sonic boom right here in the studio,' and he blew into the mike. I didn't have the heart to stop him, he was so serious about it. And the sound he made isn't too far off a sonic boom, either - but we've got the real thing.

"I know for sure that the sonic boom came through as the real thing, because Captain Ronca, when he came down, wanted to hear the playback. I've got a picture of him listening nn the stereo earphones. When the sonic boom came, he couldn't help himself, he ducked." And so will we all.

mmmmm

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HIGH FIDELITY MAGAZINE

CAUTION!



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Acoustic spectrums of a flute tone (above) and fiddle tone (below), reproduced by a worn magnetic head, would look almost identical if the violin's high frequencies (shaded area) were lost by the worn head. Result is a lack of instrumental definition.



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ONLY "SCOTCH" BRAND HAS SILICONE LUBRICATION



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