

THE MAGAZINE FOR MUSIC LISTENERS

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Garrard! Drive shaft for 331/5 rpm and 45 rpm is heavy, thus obtaining more con-sistent quality at critical low speeds. Wows and wavers eliminated.

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Parallel lift tone arm construction guarantees true tangent tracking. Disturbing reso-nance eliminated.

INTERCHANGEABLE PLUG-IN HEADS:

PLUG-IN HEADS: Carefully engi-neered to accommo-date user's choice of crystal or mag-netic cartridges for standard and micro-groove reproduc-tion, such as Asta-tic, Pickering, Au-dak and GE twist models.

T

WORLD'S **FINEST** RECORD **CHANGER**

WEIGHTED TURNTABLE: URNTABLE: RC-80 turntable is heavily weighted to give flywheel action so that any varia-tions in the drive motor are not re-flected in record reproduction. No turntable rumble.

HEAVY DUTY SILENT 4-POLE MOTOR WITH Absolutely No Rumble:

RUMBLE: Speed, maintained throughout a wide variation in line voltage. There is no appreciable speed variation operating unit "cold" with a full load or "hot" with one record, re-gardless of weight, thickness or diam-eter of records.

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Only a 4-pole motor can assure no hum when used with sensitive magnetic pickups.

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PRECISION GROUND GEARS

Perfectly meshed to insure constant smooth action and years of service.

GARRARD

MUTING SWITCH: No sound while, changer operates on run-in or run-off grooves. Continuity of music undis-turbed by noises. WATCH-LIKE CONSTRUCTION

All parts are precision made, fas-tidiously assembled and simple to adjust.

A complete stock of replacement parts is readily available to all Garrard owners.

For an excellent description of what to look for in a record changer, we recommend the section devoted to changers in the new book "High-Fidelity Sim-plified", published by John F. Rider.

We print this page in order to show you the superb engineering which has caused thousands upon thousands of discriminating people, who enjoy records, to insist upon the Garrard "Triumph", World's Finest 3-Speed Record Changer. Take this advertisement to your favorite sound department, and judge for yourself! \$42.30 net, less cartridges

MAIL COUPON TODAY for Garrard Fact Sheet and addresses of dealers, 164 Duane Street New York 13, N. Y.

Send literature to Name..... to Garrard Sales Corp., Dept, BF3 Address City.....Zone.....State..... ON THE COVER this issue are an assortment of installations made by Voice and Vision, Chicago, and Shrader Sound, Washington, D.C. The uniting theme, as hinted in the period-phonograph drawing, is how to house your record playing and radio receiving equipment, less loudspeakers. The montage (as well as the drawing) is by Roy Lindsrrom. who also designed the *ldeas* pages, 34 to 37.

Next Issue. A year and a half ago, Mr. H. S. Rummell, a music-loving writer, moved, for reasons of his own, to Deansboro, N. Y., a village not very near anywhere. He brought an FM runer with him, since he wanted to enjoy the music from New York's Station WQXR, relayed upstate by the FM Rural Radio Network. He found its nearest good outlet was 40 miles away; he needed a good, directional FM antenna. Incredibly, when he asked his local radio service man about one, that worthy replied: "They don't make 'em ...!" So Rummell, knowing nothing about antennae, decided to make his own. And he did - and now be gets WQXR and WNYC, from Manhattan, more than 150 miles away, direct. It took, admits Rummell modestly, the patience of a Galileo and the nerve of a cat-burglar, so naturally he had to write a story about it. You'll be reading it.

On February it, at midnight, Mr. David Kapp, boss of popular record making at RCA Victor, breathed a sigh of relief. *Hazel Flagg*, new Broadway musical, based on the very funny Carole Lombard movie, *Nothing Sacred*, had opened and the critics (some of them, anyway) had liked it. Now RCA Victor Could go ahead and record a *Hazel Flagg* show album — without fear that the show would fold before the album came out. At press time, the recording session was scheduled for February 22. Among those to be present, perhaps with bells on, was John Conly, to write a blow-by-blow backstage account of the taping of a Broadway show album.

Letter writers: We love reading mail, but we don't always love editing it for Readers' Forum. If you want to see your effort in print there, please type it double-space, or write in legible longhand, with plenty of air between the lines.

Published hy: AUDIOCOM, INC. at Great Barrington, Mass. Tel. Great Barrington 1300.

Branch Offices (advertising only): NEW YORK, Room 1209, 6 East 39th Street. Phone: MUrray Hill 5-6332. Fred C. Michallove, Eastern Manager. CHICAGO, 426 North Pine Avenue. Phone: Columbus 1-1779. Charles Kline, Western Manager. LOS ANGELES, 1052 West 6th Street. Phone: Michigan 1732, Edward Brand, West Coast Mgr.

HIGH-FIDEJ.TY is issued hi-monthly in January, March, May. July, September and November. Single copies \$1.00 —Subscription rate: \$10.00 for three years, \$5.00 for one year in the U. S. A., its Posessions, and Canada. In all other countries: \$6 00 for one year, \$13.00 for three years.

Editorial contributions will be welcomed by the Editor. Payment for articles accepted will be arranged prior to publication. Contributions will be neither acknowledged nor returned unless accompanied by adequate postage, packing, and directions, nor will HIGH FIDELITY Magazine be responsible for their safe handling in its office or in transit.

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High Fidelity

THE MAGAZINE FOR MUSIC LISTENERS

Volume 3 Number 1 March-April 1953

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MILTON B. SLEEPER, Publisher Copyright 1953 by Audiocom, Inc.

Entered as second-class matter April 27, 1951 at the Post Office, Great Barrington Mass., under the Act of March 3, 1879. Additional entry at the Post Office, Pittsfield, Mass. Printed in the U.S.A.

AS THE EDITOR SEES IT

R ECENTLY, a friend called us excitedly on the phone. We knew that, for the past year or so, he had been devoting his spare time to a problem close to the heart of every home music listener: loudspeakers and speaker enclosures. His work was far from the usual paths of corner enclosures and bass reflexes.

"Boy, I've got it! You know that enclosure I've been working on? Well, it's finally jelled . . . and you never heard such sound! When can you come and hear it?"

Up we went. We listened and listened. We heard records with which we were thoroughly familiar. Finally, one of us went over and turned up the bass tone control a bit. From then on, it was a problem of telling our inventor-friend that it was very good, but not quite as good as he thought. It was not the answer to an audiophile's prayer.

It was better than many a speaker-and-enclosure combination which we had heard. But the sound had to be taken strictly in context, as it were. *Considering* that only one speaker was used, and that the box which housed it was relatively small, the sound was excellent. But better sound could be and has been achieved by using a bigger or different enclosure, by using more than one speaker, or by any number of various methods.

So why had our friend been so enthusiastic? Let's put it down to a new disease, which we shall now invent and to which audiophiles are particularly subject: ear-conditioning. Its cause: too much listening to a particular type of reproduction. It becomes familiar. In fact, it becomes a norm, whether it deserves to or not. Anything different sounds wrong, or poor, by comparison.

The moral is two-fold: freshen up your ears now and then. Listen very critically to somebody else's system or, better yet, to some live music. And — just as important — don't be afraid of your own judgment.

SPEAKING OF considering things in their context, and also of loudspeaker enclosures, there is a very important factor in enclosure and speaker measurement which is too often either overlooked or overemphasized: the efficiency of the speaker-cum-enclosure. Loosely defined, efficiency is the ability of a speaker to translate electrical watts into acoustic watts. Thus, one speaker and enclosure may deliver a certain degree of loudness with the volume control in its 9 o'clock position. To reach the same loudness, another S-and-E may require advancing the volume control to its 2 o'clock position.

Efficiency is important in public address systems, where maximum loudness for minimum power is desired. It is important in the home if, to drive the speaker to sufficient volume to please you, the amplifier must be pushed up to a point where distortion becomes serious. And distortion rises rapidly as peak power handling capabilities are approached. For instance, one specific amplifier, conservatively rated by its manufacturer as a "25watt amplifier" operates with about one-quarter of one per cent intermodulation distortion up to 20 watts. At 25 watts, the distortion rises to 2%; at 28 watts, it is up to almost 20%. Efficiency of the S-and-E is not very important with this amplifier, because it has plenty of power handling capacity. But with a smaller, or less well-designed amplifier, efficiency may be important, depending on how loud you like your music.

The moral here: don't let "efficiency" throw you particularly nowadays, because of the many small enclosures appearing on the market, several of which are notably inefficient. To which comment you should now say, "So what? Let's hear how it sounds." Chances are, if you are in the market for one of these miniatures, it's because you have a small listening room. Accordingly, you'll seldom turn the volume high enough to strain the amplifier's resources anyway.

AND WHILE we are clarifying things, let's tackle another one. We've heard too often the remark, "I don't want to bother with FM because it drifts too much". What drifts? The FM transmitter? That seems to be the impression of many people. And the answer to that one is, stuff and nonsense!

FM transmitters are not allowed, by their owners or the Federal Communications Commission (which regulates the owners), to drift more than 2 cycles per hundred thousand! It's the FM receivers which do the drifting. If they are well designed, they don't drift after about two minutes of warm-up time, if at all. If they are poorly designed, they may drift clear off one station and on to another one, a couple of channels away. On this point, we would say a) if you don't want static-free, wide-range reception, don't "bother" with FM, but b) please don't reject it for the wrong reason.

POSTSCRIPT to our editorial in the November-December issue: 17,000 registered at the Los Angeles Audio Fair!!!





add the T-35Super Sonar

VERY HIGH FREQUENCY DRIVER

THRILLING UPPER OCTAVES are silky smooth and completely reproduced with E-V's new Super Sonax very-high-frequency tweeter. Economically add it to your extended range single speaker for a 2-way system . . . to your coaxial for a 3-way . . . or to your separate multiple 2-way for a super 3-way system. It is easily installed in a few minutes. Takes over from 3500 cycles to limits of audibility. Famous E-V patented diffraction horn insures 180° dispersion. Readily mounts into your present enclosure or E-V folded horn corner enclosures.



See Your E-V Distributor or Write for Bulletin.



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T-35 SUPER SONAX. For any system up to 40 watts. Response: 3500 cps to beyond the range of audibility. Polar Pattern: 180° dispersion. Impedance: 16 ohms. Cut-off of Diffraction Horn 1500 cps. RTMA Rating: +56 db. Horn: 4½" long x 1¼" wide. Pot Diam: 2½". 3¼" deep over-all. Net Wt. 2 lbs. List Price, \$49.50 Audiophile Net, \$29.70

X-36-1 CROSSOVER. Recommended for use with T-35. Full M-Derived ½ section. 3 db loss point, 3500 cps. Impedance: 16 ohms in and out. Metal case: $3\frac{1}{2}$ w x $3\frac{1}{2}$ d x 3¾″ h.∎ List Price, \$11.25 Audiophile Net, \$6.75

AT-37 LEVEL CONTROL. 16 ohm L Pad; for use with Model T-35. Adjusts output level to individual taste. List Price \$5.00 Audiophile Net, \$3.00

IT MAKES Good Sound ... AND Good Sense, TOO

you buy good records so you can enjoy good sound. You fondle these records, and handle them ever so gently, because you know that once the surfaces are marred, the quality will be gone to you forever.

You must realize then, that your record changer becomes an all-important factor in the matter of record quality. It must treat with your records even more gently than you could yourself, and it must contribute nothing which might impair the quality of the sound. Its tone arm must track at light stylus pressures and with free lateral compliance to protect the groove walls from wear.

Its speed must be constant for correctness of pitch, and to avoid 'wow'. It must be free from rumble, and from audible resonances. It must retain and reproduce all of the quality in the record, protect it for future plays, and it must contribute no distortions of its own.

In the light of these requirements, examine the features of the COLLARO, and see if they don't meet all the exacting specifications that make this

The High Fidelity Record Changer for High Fidelity Reproduction



AUTHORitatively Speaking

Ever and anon, someone leaves Washington, D.C., in the general direction of McLean, Va., makes various obscure turns, asks directions at certain strategically located filling stations, finds himself on a tiny dirt road, fords a brook and arrives at an 18th Century log-walled farm house. He enters, and asks if he may borrow a harpsichord. The people who do this are neither insane, nor Russian secret agents making rendezvous. The farmhouse, handsomely renovated, is the dwelling of Day Thorpe author of We Spent the Summer with Mr. Bach (page 27), Washington chief of the advertising firm of Albert Frank-Guenther Law, collector of keyboard instruments and high fidelity enthusiast. Fortunately, the associate editor of HIGH FIDELITY made this pilgrimage (for advice on buying a clavichord) last spring. As a result of the visit, when Thorpe later finished Operation Clavierübung, it occurred to him that the tale thereof might interest HIGH FIDELITY's readers. We thought it would, too.

Ł

Roy H. Hoopes, Jr., who once played drums in a college jazz band, is assistant to the general manager of *Life International*, a job in which he gets to meet a lot of people. One of the people he got to meet this winter was Benny Goodman; the occasion was the latter's first hearing of the test-disks of the Goodman Jazz Concert No. 2. The ensuing conversation dealt largely with the shortcomings of "cold" or studio-recorded jazz as against jazz recorded "live," at an actual dance-date or jam session. It sounded like a story to Hoopes, who went to work forthwith. The results start on page 40.

Maxmilian Weil, president of the Audak Company, whose dissertation on diamond styli occupies pages 38-39, probably rates as dean of the phono-pickup industry. He began making reproducer-heads more than 30 years ago, for many popular makes of acoustic phonographs. In 1925 he patented an electronic pickup; he has been inventing, refining and selling them ever since. As well as being an excellent theorist and an inspired gadgeteer, he is one of the most astute businessmen in the industry. He has waged unceasing war on the philosophy of the "fast buck," holding that it has no application to a line of business which must rely on intelligent customers.

C. G. Burke, whose Beethoven supplementary discography begins in this issue, will be (rumor hath it) the subject of an article in the May issue of *The Atlantic Montbly*. Known to HIGH FIDELITY readers as a reviewer, Mr. Burke is also one of the nation's leading record collectors.

Almost exactly 75 years ago, in Philadelphia, a man named Emile Berliner demonstrated a device largely responsible for the existence of HIGH FIDELITY — the disk phonograph record, with laterally modulated grooves. Recording, as a science and an art, has changed considerably since then, the latest and most drastic change being the use of magnetic tape. Not unfitting, we think, is our use at this time of an article (page 32) on building a home tape library. Its author: Oliver Berliner of Berlant Associates — grandson of Emile Berliner.

Stephens "500" SERIES GIVES NEW CONCEPT TO HIGH FIDELITY

NEW 500 D DIRECT DRIVE AMPLIFIER AND MATCHING 500 OHM VOICE COIL SPEAKERS



500 D DIRECT DRIVE AMPLIFIER FINEST EVER OFFERED

Designed for use with speakers having 500 Ohm voice coil. Never befare has such fidelity been possible. Stephens matching speakers with 500 ohm voice coil used in conjunctian with the 500 D amplifier provide the finest reproduction of sound yet achieved. This is the first amplifier to successfully eliminate the output transformer thereby eliminating hum and distortion introduced by transformers. At full 20 watt, distortion is less than ¼ of one percent. Phase shift is less than 15° at 20 c.p.s. (far less than can be obtained with a transformer.) Learn more about this outstanding development. Write far technical data.

> List Price: 500D Amplifier, \$184.00

5106AX COAXIAL SPEAKER

This fine caaxial speaker reproduces true-to-life tones across the entire audio spectrum. Space soving compactness makes it the

choice for most broadcost station monitoring and the finest set manufacturers. It is one compact assembly combining a 15" low resonate cone reproducer with a separate lightweight metal diaphragm and voice coil assembly coupled to an 8 cell horn with 40° x 80° dispersion.

Also has a 1200 cycle high pass filter. Power rating, 20 watts, *Impedance—500 ohms. Frequency Response—40 to 20,000 c.p.s. Diameter—15½". Recammended for broadcast monitoring, mation picture sound, and especially FM and record reproduction. Available as a 16 ohm sysstem, Model 106AX.

List Price: Model 5106AX....\$179.00 Model 106AX....\$166.00

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8538 WARNER DRIVE . CULVER CITY, CALIF.

For superior listening qualities be sure to get Stephens Tru Sonic components...complete illustrated catalog available on request.

6AX....\$179.00 6AX....\$166.00 wre to get Stephens

STEPHENS TRU-SONIC

SWITCH IT ON AND THE WHOLE ROOM PLAYS



FAR FINER THAN A PHONOGRAPH

THE NEW IIM \bigcap

The ability to radiate sound around its listeners inspired the name Columbia 360, the 360 degrees of the perfect circle. Two sound outlets, at each side of the cabinet, create the remarkable effect of "Hemispheric" Sound.

. . .

Engineered and built by Columbia Records and CBS Laboratories. Available in limited quantity . . . Priced at \$139.50 in mahogany.



TWO SOUND OUTLETS

You can now hear for yourself the room-filling reality of sound produced by an amazing new instrument playing all records-any speed. Be your own judge of the exciting difference between this new conception and ordinary phonographs -even console sets at 3 to 4 times the price! Hear for the first time the thrilling advances in fidelity, clarity and range of sound offered to you in today's Columbia Records!

EXCLUSIVE DEVELOPMENT OF COLUMBIA RECORDS ORIGINATOR OF () THE MODERN LONG PLAYING RECORD

Trade Marks "Columbia," () Reg. U. S. Pat. Off. Marcas Registradas. "360" Trade Mark.

Noted with Interest:

smaller than a desk pen ... just as convenient

Confusion Worse, etc.

1

It would have been a most thoughtful, kind, and foresighted gesture if whoever started this so-called binaural sound had met with the International Lexigraphic Association and discussed the whole matter with them, before bringing "binaural" to the attention of the public. There is not much doubt, now, that multi-channel sound reproduction is hot stuff, but what to call it is almost a bigger problem than how to do it.

Some say two-channel sound is binaural. Others vote for stereophonic. Some of the stereophonic boys say that to merit use of their word, you've got to have three channels. Three-channel recording and reproduction is receiving some high-powered promotion on the West Coast. Ever-enthusiastic Cap Kierulff forwarded us an announcement about three-channel equipment from Ampex, on which he had scrawled, "Boy, this is IT!!"

To confound confusion worse than ever, an untutored secretary (who obviously doesn't read HIGH FIDELITY) transcribed her shorthand notes so that every time her doctor boss, who was dictaring a Letter to the Editor, said "binaural" it came out on the typewriter as "binoral". We had a good laugh . . . and then we began to wonder. Maybe thar secretary has something. Or maybe we're going slowly crazy. But . . as reproduced in the home, it is sound with two mouths, isn't it? We can't find "binoral" in the dictionary, but that doesn't mean anything.

We'll be interested to see what the doctor's secretary has to say about the Ampex three-channel system. Trinoral?

Final word will no doubt come from our good friend and long-letter writer H. A. Hartley. He took 2½ pages a few months ago to tell us that he would never like HIGH FIDELITY so long as we used that word "audiophile" on the cover. Seems that "audio" is Latin, "phile" is Greek, and that such a combination is a sin beyond forgiveness.

Where Silence is Golden

Here's one of the greatest opportunities in an audiophile's (pardon us, Mr. Hartley) lifetime: a chance to attend an audio show where silence reigns supreme. Yep, that's right. It's the I.R.E. show at the Grand Central Palace in New York, March 23rd through 26th, inclusive. Audio, we admir, is but a shortish corridor on the third floor but nevertheless, it'll be there, and it'll be quiet. Except for a couple of sound-proof super-exhibit rooms (which will be demonstrating "binoral", no doubt), all exhibitors have to keep quiet. We'll be there, in Booth 310 (Third Floor), and we'll keep our big mouths shut. Come and talk to us . . . and also, take a gander around at the rest of the show (we won't mind). It is always a fascinating and awe-

Continued on page 10



The **NEW** Turner C-4 Stand for Model 80 Microphone

The new C-4 stand gives complete maneuverability and convenience with the Model 80. It pivots the microphone in a 135° arc for any operational angle — swings parallel to base needing little more space than two packs of cigarettes. The microphone is held firmly by the unique, positive-action hinge, yet moves smoothly and easily to any desired position without adjustment. Microphone quickly and easily removed.

This new, matching stand is solidly built of diecast zinc overlaid with beautiful satin chrome plate. It is heavy enough to prevent tipping it will not slide with the weight of the cord. The C-4 stand complements the graceful shape of the Model 80; the combined unit is an attractive but inconspicuous addition to a speakers' table. Ideal for use with wire recorders, public address systems, pulpits, office and factory call systems, amateur operators and other similar uses.

Model C-4 matching stand. 5/8"-27 thread. List Price _____\$_5.75 Model 80 Microphone. List Price_____\$15.95



THE TURNER COMPANY

942 17th St., N. E. Cedar Rapids, Iowa In Canada: Canodian Marconi Company, Toronto, Ont., and Branches Export: Ad Auriema, Inc., 89 Broad Street, New York 4, N. Y.

FIRST AGAIN!

with the only BINAURAL ARM displayed at the Audio Fair



"a product of Livingston Electronic Corp." Livingston, New Jersey

NOTED WITH INTEREST

Continued from page 9

inspiring spectacle, for, laid out on tables, benches, and stands, is a cross-section of the electronics industry.

Release DeLuxe

Editors get multitudes of "hand-outs" or publicity-releases, most of them very much alike. Once in a long while, one comes along which deserves better than the normal wastebasket treatment. The one reprinted below (in part) does. It was sent out (To the "Ladies and Gentlemen of the Press") by Don Gabor, boss of Remington Records and pioneer in the field of lowpriced classical LP's. As anyone familiar with Don's pleasantly-broken, Hungariantinted English will recognize, this one came straight from the boss, uncensored by any publicity agent. Gabor was a little perturbed by the sudden appearance of bigcompany cut-rate reprint disks, some reference to which we have removed. But the letter is noteworthy apart from this:

"I take great pleasure to announce that Laszlo Halasz is now Executive Director of Remington Records — not just "Artistic Director" of Remington, but DIRECTOR. From here on, check with Halasz.

I used to go to the City Center for a good opera performance and I told myself, 'This is what I mean about Music for Millions' - great performance for a low price. Then I saw that they let Mr. Halasz go. 1 thought this is a very bad incident because it hurts the Music for Millions program to lose one of its most ardent fighters in the opera field. 1 didn't know Mr. Halasz then, but I understood what he stood for. If I was able to see The Love for Three Oranges, the Meistersinger or Salomé for \$3.60 in orchestra seats, that was easy enough to understand for me. This is the same way Remington Records is going. I give to the public Beethoven's Eroica with Fritz Busch, conductor, on a Long Playing record. This is the same principle . . . the Henry Ford principle. When Henry Ford wanted to sell automobiles cheap everybody thought he was crazy and he would ruin the industry. When Remington started, I decided that we will pass on part of the profits to the public and put out a product which will be a tremendous value. And I am right, I guess. I sell symphonies and I sell operas and I sell Gypsy music. I sell American recordings and I sell European recordings just like anyone else. I sell big name artists and smaller name artists - BUT 1 sell them for \$2.49 and the others sell them for \$5.45. I don't make as much on each record - but I sell a lot. And everybody screams.

"Now, after I have been doing this for three years, others announce low-price lines. Now they think they almost meet me on price.

"But there is a difference: Remington is my best. I say to my Remington artists, "You are my best." They say — (1 don't know how they say it to their artists) —

Continued on page 13

ARTUR RUBINSTEIN, acknowledged King of Pianists, has been heard by more people than any other living planist. Even before his American debut in 1906, Rubinstein had acquired a fabulous reputation in Europe. Since then, he has traveled more than two million miles to play ir. every country in the world except Tibet! His recordin; sales average more than a million dollars a year, and his magnificent playing has been brought to additional audiences through the medium of motion pictures.

 "I would highly recommend the Revere Tape Recorder to every pianist, whether master or student, as a means of self-criticism.
 The beautiful quality of its tone gives the illusion of an actual performance."

Famous Antists Choose Revere Recorder

Great musical artists rely on the Revere Tape Recorder for rehearsing their performances—knowing it records with maximum fidelity... with the clean highs and clear lows of life itself. They hear their performances *exactly* as their audience will hear them! Why not follow their example and use the Revere Tape Recorder for *your own* musical advancement.

The New REVERE "Balanced - Jone" RECORDER

A proud achievement of recording brilliance! To hear the new Revere "BAL-ANCED-TONE" Tape Recorder is an unforgettable experience. Each delicate sound, every musical note, is reproduced with amazing depth of tone, breadth of range, and height of realism heretofore obtainable only with professional

FAITHFUL REPRODUCTION OF SOUND

broadcast equipment. Yet, it is extremely simple to operate. Note these outstanding features incorporated in the new Revere:

"Bolonced-Tone" Control provides professional, high fidelity tonal quality.

Exclusive Index Counter permits instant location of any part of a recorded reel.

Automatic Key-Controls record, play, or stop recorder instantly.

High Speed Forward and Rewind Leverno backlash or tearing of tape.

Add to these such important advantages as two full hours of recording on each reel, lightweight portability, magnificent styling, glamorous beauty, low price—and you'll agree the new Revere "BALANCED-TONE" Tape Recorder is in a class by itself. See it at your dealer now!



REVERE CAMERA COMPANY - CHICAGO 16, ILLINOIS



HIGH-FIDELITY starts in the Diskchanger

All high-fidelity enthusiasts will find this article of extreme interest. The author is a well qualified high-fidelity engineer at Webster-Chicago Corporation – manufacturers of the famed Webcor products.

GH-FIDELITY" means many different things to different people. In the main, however, it means reproducing recorded music with all the depth of tone and realism of a live performance. To accomplish this, engineers and hobbyists spend long hours and much money on amplifiers and speakers capable of delivering the ultimate 20,000 cps. Then, when sound reproduction is poor, as is often the case, they ask—"why?"

Why High-Fidelity Installations Fall Short

In high-fidelity phonograph installations, the sound system no matter how good, can only reproduce what is fed into it by the Diskchanger. The Diskchanger then is the *heart* of a high-fidelity installation—it is in the Diskchanger that true, faithful fidelity starts.

Here's What Makes a High-Fidelity Diskchanger



Webcor "HF" Diskchanger-also available mounted on handsome base pan. Comes equipped with crystal cartridge, G. E. Triple Play or for plug-in of standard magnetic cartridges. Wide range of decorator colors.

To be worthy of a high-fidelity installation, a Diskchanger *must* perform three important functions: (1) accurate speeds with low "wow," "hum" and "rumble"; (2) superior tracking for sensitive signal pick-up and, (3) change records gently and quickly with a minimum of mechanical noise.

by CHARLES DWYER

Webster-Chicago recognized the need for a true highfidelity Diskchanger and developed the Webcor "HF" Diskchanger. The Webcor "HF" provides features that insure a superior signal from the recording—a signal that is free from all disturbance and distortion—and Webcor excels in the Diskchanger's three important functions:



1. Accurate Turntable Speeds-Webcor uses a powerful 4 pole-shaded pole motor for constant speeds and low "bum" A finely machined "Step Drive" translates motor power into accurate record speeds-eliminating "wow" The

turntable is extra-beavy and ball-bearing mounted to act as a balancing flywheel for the motor. The result is constant, accurate turntable speeds with a minimum of "wow," "bum" or "rumble."



2. Superior Tracking-Because of Webcor's Velocity Trip, the Balanced Tonc Arm is guided by the record groovesnot by mechanical drives or gears. This allows the pick-up to float in the record grooves without pressure of

any kind-to track every bill and valley-to pick-up the sound exactly as it was recorded.



3. Fast, Gentle Changing-Incorporate;! in the Webcor "HF" Diskchanger is the famed, gentle "Push-Off" change system. Triggered into action by the Velocity Trip, the Balanced Tone Arm swings up and away-the record is

pushed off the spindle step and cushioned by the thick resilient turntable carpet formed by Webcor's exclusive electrostatic flocking. The Webcor plays up to 4 hours of all 3-speed, 3-size records, then shuts off automatically after the last record has been played. Truly the ultimate in convenience.

Webcor "HF" Diskchangers belong in your high-fidelity installation, and may be procured at any leading radio, music or department store. For the name of your nearest dealer write Webster-Chicago Corporation, Chicago 39, Illinois This is an advertisement of the Webster-Chicago Corp.

NOTED WITH INTEREST

Continued from page 10

You are not our best but, look, you don't cost as much either."

"So now I admit I have got new competition. I cannot cut my price because already I have built a new factory and I have already improved the quality of my disks. The plant at Webster, Massachusetts, had thirty-four new machines that press only 80% vinyl records, etc., etc.

"Can I improve my catalog, I ask myself? And I say that Mr. Halasz can improve anybody's catalog. IF HE CAN BUILD THE NEW YORK CITY OPERA WITH-OUT ANY MONEY AND WITH A BOARD OF DIRECTORS — I THINK, WHERE WOULDN'T HE GO WITHOUT A BOARD OF DIRECTORS AND MORE MONEY?

"I know I can't lay my hands on every one of the greatest artists. The big record companies have a lot of them tied up. That was — as I used to watch Halasz's opera company — about the same problem: the Met had the names but Halasz went out and scratched for the young voices and the young looks.

"So, Mr. Halasz and I began to talk. I want him to be Director of Remington. Pretty quick and I am definite on that. After seeing Halasz at work, I see that he is not only a musician but an organizer, an executive. The number of interviews he can conclude conclusively in one day is amazing to me — and I am a business man.

"We have many other things to settle because we are both very serious. I have told him to go through the whole Remingron catalog and throw out everything he does not think is up to the standard he wants for Remington — and then to make new records as fine as he wishes and as fast as he can. I will undertake to sell them for him.

"Laszlo Halasz is now the Director of Remington Records — without a Board of Amateurs as the Director's Director. I trust that his first records will be a fitting continuation of the last operas he produced for the City.

"P. S. My purpose in doing this project is to make good music available for the masses for a price that everybody can afford. Because of price, I missed much good music for a great part of my life. I hope to help the present and coming generations in America to a greater enjoyment of fine music than I was able to indulge when I was a boy.

Dialing Your Disks, Continued

The Board of Directors of the National Association of Radio and Television Broadcasters, in the "Standards" which were adopted in 1949 by the NARTB Engineering Executive Committee and by the Executive Committee of the NARTB Recording and Reproducing Standards Committee, call it: recorded frequency characteristics. That's what it's called, officially.

Almost anyone who puts a record on a turntable calls it various unprintable kinds

Continued on page 14



RV-31 FM TUNER

for those who expect the exceptional



Browning FM and FM-AM tuners have long been recognized as the choice of outstanding audio engineers, when the utmost in performance is demanded. So when we improve them, we can honestly say that we are *adding virtues* rather than correcting faults.

Here's what has been added:

- New, all-triode RF section, for extremely low noise level.
- Higher sensitivity 3 microvolts for 20 db. quieting, instead of more than 6 microvolts as before. This is desirable in fringe areas and in noisy urban locations.
- Cathode follower output stage, to feed any high-fidelity amplifier at low impedance. For those "remote" installations, this will minimize hum difficulty and high-frequency loss through cable capacitance.
- Power outlets at the rear of the chassis, for convenience in making connections to amplifier and turntable.
- A newly designed edgelighted dial in modern style, with knobs and escutcheon in black and silver.

And here's what has been kept: true Armstrong FM circuit — selectable AFC, which can be switched out at will — drift-free operation without AFC — sensitive tuning indicator, for precision tuning with AFC switched out, and quick tuning using AFC — audio inputs for phono,

TV, and recorder, for selection by a panel switch and connection to the audio amplifier — self-contained power supply — small dimensions $(6\frac{1}{2}" \times 11" \times 9")$ for easy mounting in limited space.

Ask your distributor of high-fidelity sound equipment for a demonstration. And read the discussion of Browning tuners in HIGH FIDELITY SIMPLIFIED, by Harold D. Weiler — available at all sound studios.



DUOTOT CARACTER

Make all your records last longer, sound better... this new, easy way!

Here's a new and easy way to clean and protect all your phonograph recards. It's with Duotone's magic cleaning clath... the ELECTRO-WIPE. Just one wipe with this specially treated cloth and all harmful grit and dust is completely removed from record grooves. Eliminates static electricity that causes annoying "paps" and "clicks." Makes records sound better... last longer. The ELECTRO-WIPE is all you need — no_smessy liquids, no drying — nothing else to buy. Sealed in a plastic pouch with complete directions printed right on the kloth. Get your ELECTRO-WIPE now ... only \$1.50 at better regord shops exervidered

If your dealer doesn't have the ELECTRO-WIPE yet, simply send \$1.50 direct to —





NOTED WITH INTEREST

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of a nuisance. The more ardent hi-fiphreniac loses weight and sleep worrying about it.

The "recorded frequency characteristics" describe the amount of difference, at various frequencies, between what is picked up by the microphone in a recording studio and what is impressed onto the master record. The problem for the audiophile is to figure out which arrangement of knobs will counterbalance exactly the recorded trequency characteristics of a given record. Life would be simple if all record manufacturers adhered to the same recorded frequency characteristics curve. But life ain't simple — and they don't.

To find out as much as possible about what curves were being used at present, we wrote to the record companies and asked — a simple and direct procedure which produced more results than ever before, and that is significant because it indicates that said companies are more aware that this is a serious matter for home listeners. Anyway, we wrote about 80 letters, and received 17 replies in time for publication in the January-February issue of HIGH FIDELITY.

The deluge has now started. We'll skip the letters saying "Thanks for a good try" and print, first, a long document from Victor Brociner, who has built himself a considerable reputation for, among other things, his preamplifier-equalizer, and hence is duly concerned with anything having to do with recorded frequency characteristics:

"Having in a modest way had something to do with stimulating the present interest in proper record equalization, I am very much encouraged to note that you have gone to the trouble of obtaining the information published in tabular form in your January-February issue under 'Dialing your Disks'.

"On the other hand, I am very much concerned about what appears to be growing confusion about the recording characteristics actually used, which I feel is largely caused by lack of clarity in the use of the terms 'turnover' and 'pre-emphasis'. A few years ago, there began to be fairly general acceptance of a definition of turnover. The turnover frequency was taken to be the frequency at which the recording characteristic deviated 3 db from a flat characteristic. This is also the point at which the prolongation of the straight portion of the low frequency part of the curve, or asymptote, intersects the zero axis.

"This was all well and good until highfrequency pre-emphasis came into general use. With pre-emphasis there isn't any flat portion of the frequency characteristics to which the 3 db point can be referred. To make matters worse, both the NAB and Columbia LP low frequency characteristics have additional (and different) curved sections at their low frequency ends which makes it difficult to draw the prolongation referred to above. Now it should be perfectly obvious that a curve that has no flat portion can be made to have a

Continued on page 17

How High can High Fidelity be?

F YOU could sit in with the select few on the staff of a major record company, you might hear the playback of a master tape of a great symphonic recording. You would be listening to the highest order of fidelity achieved in musical reproduction - something in a distinct class above even the best recorded music ordinarily heard elsewhere.

These master tapes are so near to perfect that their deviations from the original sound are beyond the perception of the human ear. The master tapes must not only satisfy the best record making techniques today - but they must anticipate the requirements of the finest reproduction methods of ten, twenty, or fifty years from today.



Ampex tape recorders in a studio of Capitol Records - typical of the demanding professional uses of this high fidelity machine.

It is an open secret how the extraordinary fidelity of these master recordings is achieved. The instrument is the Ampex Magnetic Tape Recorder which is now installed in practically all of the commercial recording studios in America. Although Ampex machines are thoroughly professional equipment — the finest tape recorders built — they are being installed in an increasing number of private homes where the ultimate in musical enjoyment is desired.

People in the music and entertainment fields were among the first to recognize that Ampex Recorders had a place in the home. Some of the great musicians of our time are among



An Ampex installed in a custom home music system. In this installation, sliding panels conceal the recorder and speaker when not in use.

the distinguished owners of Ampex Recorders For them it provides recorded music and personal performances with a perfection that fully satisfies their highly developed tastes.

In your home an Ampex Recorder can serve both as a recorder and a superlative playback instrument. Pre-recorded tapes are becoming available in an increasingly wide selection of symphonic and incidental music. Also, live F-M broadcasts bring to you a wealth of music of flawless quality and brilliance. While listening to a broadcast, you can make your own "master tapes" which can be replayed countless times. Their extraordinary fidelity is completely permanent, giving you a personal library that will be a lifelong source of tremendous satisfaction.

The answer to "How high can high fidelity be?" may also be your answer to how great can listening pleasure be. If you enjoy owning things that are undisputably the best in their field, an Ampex Recorder and a custom music system belong in your home.



for further details write today.

934 CHARTER ST. • REDWOOD CITY, CALIF.

In music, is everything

"My wife and I drove some 400 miles to New York, "My wife and I drove some 400 miles to New York, just to witness that concert of yours at the Audio Fair. For over an hour we waited in line, but it was worth it. No amount of advertising could have made me believe such a thing possible. Closing our eyes, we could not tell which was playing — the live artists or the AUDAX CHROMATIC. Thank you for this thrilling experience. It will stay a memorable event in my musical life. I am going to" (from a letter)

The revolutionary new records are so true to the original that almost any pick-up is bound to give some results . . . but — it takes a reproducer of the highest order, one sensitized to the nth degree . . . a ('HROMATIC POLYPHASE — to bring out every public shading over public shading over the statement of the shading over the statement of the subtle shading, every nuance so essential to the real music of which these discs are capable. . . . Therefore . . . SEE and HEAR CHROMATIC and -- YOU be the judge.

- Audax costs no more than ordinary pickups
- One single magnetic pickup plays all home records
- Only AUDAX has individually replaceable Sapphire or Diamond styli.
 Response 10 to over 15,000 cps.
- Needle-talk practically nil*
 Near-infinite compliance
- Phenomenal tracking



Available with the new compass-piroted Audax arms and to fit record changers. Audax arms are the simplest and most efficient yet devised

*Be sure to obtain a copy of 1953 ELECTRONIC **PHONO FACTS from your distributor.**

> Send for details of the amazing performance referred to in the above letter

AUDAK COMPANY

500 Fifth Avenue New York 36

"Creator of Fine Andio-Electronic apparatus for over 25 years."

"The Standard by Which Others Are Judged and Valued."

NOTED WITH INTEREST

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"3 db point" at any frequency desired by simply sliding the entire curve up or down, which changes the level but does not affect the frequency characteristic. The following example indicates how far this can be carried: The AES standard playback characteristic has a 400-cycle tutnover. However, it crosses the zero-db axis at 1,000 cycles. An inquiry to a given record company using the AES characteristic could conceivably be answered, 'Our turnover frequency is 1,000 cycles' without any specification of what is meant by turnover frequency. This little omission can make a difference of 8 db!

"The same argument can be applied to high-frequency pte-emphasis. It is all very well to talk about the amount of pre-emphasis in db at a given frequency, say 10,000 cycles, but the question again arises, 'Pre-emphasis with respect to what?"

"At first glance, the most attractive method of srandardization would seem to be to make all the curves cross the zero axis at the same point, say 1,000 cycles, and specify turnover frequencies and degree of pre-emphasis with respect to this point. The trouble is that this is not the way in which the characteristics are achieved in recording, nor does it correspond to the manner in which equalization is inserted for playback. The correct definitions, to my mind, are as follows:

I. The turnover frequency is the frequency at which the low-frequency portion of the recording characteristic deviates by 3 db from the high-frequency portion with highfrequency pre-emphasis removed.

2. Roll-off required corresponds to the number of db rise in the high frequency portion of the curve at 10,000 cycles, with the bass equalization removed. "These definitions are completely unam-

"These definitions are completely unambiguous and permit the combination of various bass and treble characteristics to form the different over-all characteristics that are now in use. They eliminate the difficulties of doing the job in the reverse direction — taking the over-all characteristics and trying to figure out what the turnover and roll-off settings should be to match them.

"The only additional specification concerns the deviations in the lower part of the curve introduced by the NAB and Columbia LP characteristics. (There is also a difference between NAB and true 500 cycle turnover, but both curves are closely approached by one compromise curve lying between them.) These can be taken care of by making a distinction between NAB and Columbia LP turnover. You may think this is a fine point, but not after you consider that the difference in the range from 50 to 100 cycles is slightly over 5 db.

"Do you think anything can be done about all this?"

We ourselves are not going to comment just yet. There will be more thoughts on the problems which Mr. Brociner brings up in the first mails after this issue reaches subscribers.

Continued on page 116







• Few radio, phonograph console loudspeakers have a frequency range as great as the radio or phonograph itself. To realize the full quality range of your console, replace the present loudspeaker with an Altec "duplex." You can do it yourself in minutes . . . without special tools or engineering knowledge. And you will hear every tone your radio is capable of producing . . . for the Altec "duplex" has a range far exceeding that of the finest console on the market. Add a "duplex" and you can have high quality sound in your home today.

See and hear the complete Altec "home music system" at your nearest high fidelity studio.



Write for the "duplex" brochure. Readers' Forum

Sir:

I have been enjoying every issue of HIGH FIDELITY, and will gladly lend my support to the campaign for "factorysealed" records. I have just experienced one particularly grim situation which has only served to emphasize to me the need for such a measure.

I particularly like the series by Edward L. Merritt, Jr., on "The Music Between." Each of his articles has listed several records that I have either already had in my collection or have been intending to buy. This would seem to indicate that the articles are serving my needs, at least!

A number of my records have been chosen as a result of hearing them played on Station KEAR, San Mateo, California. Having heard HIGH FIDELITY advertised on that station, I presume that you are aware of their policies concerning music, commercials, etc. Might they not be worth an article?

Claxion Searle

San Francisco, California

Indeed they might; we hope to run one soon.

SIR

Congratulations on HIGH-FIDELITY; 1 am pleased with it. However, I trust it never gets larger — 120 pages are enough. The New York City telephone book is so big we can hardly use it; THE NEW YORK TIMES is so big a child can't carry it. Nothing is necessarily gained by bigness except in a Sears Roebuck Catalog.

Let's stop at the present size; it's a nice lapful now.

How to do it, you ask, and make money and more money (which I hope you do) make a rule that the publication shall never have less than say 60% reading matter, and raise the price of the 40% advertising more and more.

Never larger than 120 pages — it's simple. *W. A. H.*

New York, New York

SIR:

I wonder if you might run an article about the way the record companies very often turn out disks with center pieces large enough, certainly, to have added a short selection to the record quite easily. And sometimes more than a short one, too.

For instance, I have a Columbia 12-inch recording of Mozart's Jupiter Symphony and yet I note that London has it out on 10-inch.

It seems to me that record prices are high enough without suffering from what, if we wish to be polite, we may call poor business practice on the part of the record companies. I would say it would come under the aegis of the Better Business Bureau's investigations of fraudulent practices. Eadle Greenberg

Town of Mt. Royal, Quebec

Sir:

Thank you for your — no, not your but our — good magazine. I say our because for fifteen years I have looked for information

Continued on page 20

9356 Santa Monica Blvd., Beverly Hills, California • 161 Sixth Avenue, New York 13, New York

Here is the first basic advance in tone arm design in many decades!

The GRAY "Viscous-Damped" 108-B Tone Arm

Gives you perfect contact and tracking on all records at lowest stylus pressure – virtually eliminates tone arm resonances – cannot damage record if accidentally dropped.

If your record collection includes old favorites, with grooves so worn that the stylus jumps or skids—or if your equipment is subject to floor vibrations that can cause groove-jumping —you'll welcome the new Gray 108-B. Its "viscous-damped" design provides perfect tracking, as well as eliminating any possibility of record damage if the arm is accidentally dropped. The 108-B satisfies every requirement of high fidelity reproduction.

A plug-in feature permits instant change from 78-rpm to 33¹/₃-rpm or 45-rpm, with automatic adjustment to the correct stylus pressure. See and try this "viscous-damped" arm soon—treat your valuable records to the kind of tone arm they deserve!



Gray Research & Development Co., Inc. 598 Hilliard Street, Manchester, Conn.

Please send me your Bulletin RE-3 on the new Gray "Viscous-Damped" 108-B Tone Arm.

NAME

ADDRESS

CITY

STATE

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READERS' FORUM

Continued from page 18

and reading material covering quality sound equipment which would enable me with my limited means to have a good sound system. HIGH FIDELITY has supplied just what I was looking for. It has come to mean more to me than a NEW Sears Roebuck Catalog did when I was a kid on a small North Carolina farm.

Could you devote a page or two occasionally to schematics and parts lists for various equipments? It would assist those technically inclined hi-fi fans to keep up with what's inside the rig — and shouldn't offend those interested only in what comes out.

J. Fred Willis

Decatur, Georgia

SIR:

Despite all the advances made in high fidelity equipment and in the records themselves, including the experimental stage of "binaural sound," there is still something missing most of the time from the reproduction of music.

That "something" is the reproduction of the particularly gutty quality of the stringed instruments.

In a sound comparison studio I heard the fanciest of equipment and still that "gutty" sound was missing — even when playing the finest of records from a technical standpoint.

The stringed instruments sounded glassy or steely, but not "gurty". Will somebody answer, giving the "why" for the absence in the main of the "gurty" quality of stringed instruments in the recording process or in the equipment itself.

6 Columbia Ave., Vineland, N. J. Stanley M. Slome

Al Templeton

SIR:

I think your magazine is a really necessary publication; however, there is one suggestion. As a hobbyist who built his own hi-fi rig and tape recorder, I note a lack of technical information in your magazine. Granted, many readers are not engineers, but I feel that the addition of 2 or 3 pages in each issue devoted to circuitry, tone controls, latest "gimmicks" in amplifiers, erc., would be welcomed, *i.e.*, something ro sink one's teeth into. Otherwise, the publication is really top-notch. I enjoy every issue even without "technicalia".

Here's an idea in passing: loudspeakers are built with woofers and tweerers to handle separate frequency bands. Why not try this with microphones at the original recording session as well? Two special mikes: one for the low frequencies, one for the high. Just an idea.

New York 14, New York

SIR:

I enjoyed very much all of your record review section in the November-December issue. Have enjoyed all in every issue I have received too, as far as that goes. I was pleased to see the section on chil-

dren's records, for I think it is important Continued on page 22

Hmerica's Finest Home Illusic Amplifiers

The Classic 25, fidelity sans pareil 25 watts with complete remote control

THE CLASSIC 25. There is nothing, short of live music itself, to compare with the

brilliant, clear, full-bodied tones of this

latest 25-watt amplifier. Distortian has

been reduced to the practical limits of

measurement to make it the lowest distortian producing element in the entire

process of reproduction from original

recording to your speaker, yet reserve

power has not been sacrificed. Unique

tone curves insure utmast realism and true bass. "Audi-balance" feature bal-

ances output tubes in seconds to insure

a cansistency of performance previously impossible. "Adjusta-panel" device ex-

tends control shafts instantly for cabinet

mounting. There are 6 inputs far radio,

TV, tape, crystal and magnetic (2) pick-

volume control maintains perfect aural

balance. Crassover selector simplifies

attainment of correct playback response,

includes foreign and domestic frequen-

cies as well as the new A.E.S. standard, provides automatic microgroove level

correction. 5 position record condition compensator controls surface noise. The

beautifully finished, complete remote control permits substantial installation

savings. The savings in cabinetry and labor can easily amount to more than

THE CLASSIC 15. This 15-watt model

permits the same installation economies

as the Classic 25 with many of its

luxury features, including "Adjustapanel," "Audi-balance," crossover selec-

tor, and the beautiful, complete remote

the cost of this superb amplifier.

ups.

"Fletcher-Munson" compensated

.....

modern classics in sound by newcomb Music lovers are discovering a new world of musical enjoyment, actually hearing whole actaves more music from their own favorite recordings, with custom home

music systems built around these remarkable new amplifiers. Exclusive new developments make them sound better, simpler to operate and easier to install.

The Classic 15



Model A-15



Model A-104R



Model A-104



Model AM-10R



15 years / of quality leadership DEPT. W. 6824 LEXINGTON AVE., HOLLYWOOD 28, CALIFORNIA

control. 6 inputs. \pm 1 db 10 to 25,000 cycles. 15 watts at less than 1% distortion.

MODEL A-15. 15 watts. Similar to Classic 15 in most particulars without remote control. "Adjusta-panel" feature extends control shafts up to 34" for convenience in cabinet mounting.

MODEL A-104R. A value packed 12-watt (2%), 10 watts (1%) amplifier ± 1 db 20 to 20,000 cycles. Features response to 100 kc, remote control for easier installation, recard crossover selector with A.E.S. pasition, built in pre-amp, Fletcher-Munson compensation, separate bass and treble controls, "Adjusta-panel" mounting.

MODEL A-104. Identical to A-104R without remote. Has "Adjusta-panel" for easy installation.

MODEL AM-10R. A low cost 10-watt remote control amplifier. ± 1 db 20 to 20,000 cycles. Built in pre-amp. A.E.S. or standard playback curves. "Adjustapanel" mounting. Dual tone controls. New "Interlocked" circuit. Extremely easy to install.

MODEL AM-10. Identical to AM-10R without remote. Has "Adjusta-panel" feature for easy installation.

MODEL A-10. Essentially similar to AM-10 without pre-amp. Designed for crystal pickups. Includes "Adjusta-panel." Write for catalog of all 8 completely new amplifiers priced from \$39.50 to \$269.50 audiophile net.

EXINGTON AVE., HOLLYWOOD 28,





Hear what you've been missing ... on a

crati Super-Fidelity

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READERS' FORUM

Continued from page 20

that children have good records to listen to, and as a long-suffering mother who has to hear all day what the kids are playing, I am always looking for something they'll like which I can endure easily.

I would like to suggest that in a future issue you cover some of Frank Luther's records. Most all of his children's records are good, but particularly his Cowboy songs, and Home on the Range album. We like them as much as the kids do and I think they rate among the best cowboy songs ever done for either children or grownups. Another of my favorites which the kids also like is a Victor story record called Peeuvee the Piccolo.

Skagway, Alaska

Mrs. E. J. Kalenkosky

Thenceforward we will regularly carry reviews of the best children's records by Emma Dickson Sheehy.

SIR:

There are a few comments that I would like to make on items in the November-December, 1952 issue. First, Mr. Burke says in reviewing Brahms' Quartets No. 2 and No. 3. Westminster w1 5152 "apparently the first commercial musical record whose two sides total more than an hour's dura-tion." Without an attempt to make an extensive search, we immediately thought of two that were issued some time ago that play for more than an hour - 61 minutes, to be exact. They are Bartok, Quartet No. 1 and No. 2, Columbia ML 4278 (issued about July, 1950) and Mozart, Concertos K. 466 and 459, Westminster WL 5054 (issued about January, 1951). Does any one know of any earlier ones?

Second, in regard to Mr. Malone's method of checking record wear, we have obtained completely different results. We have selected certain grooves in new LP records that contained both very soft and very loud passages. These particular grooves were played 100 times and then were compared with the adjacent grooves that had not been played. In the 100 playings we could detect no increase in surface noise nor in any increase in distortion. The tests were made with a relatively new diamond point GE Variable Reluctance Cartridge, a Gray Tone Arm and a Rek-O-Kut Turntable. It almost seems that something is not working correctly in Mr. Malone's equipment; a worn-out needle, too high needle pressure, and bad tracking are a few possibilities that come to mind. Gilbert N. Plass

Baltimore, Maryland

SIR:

The November-December issue has just arrived and it is certainly the best one yet. The additional pictures in the record review section are a good idea and I would like to suggest that you run pictures of the reviewers . . . starting with Mr. Burke, please. whose written word is not only sacred around this house, but also much enjoyed for its pith and pungency.

Regarding Article VI (Membership) in Continued on page 25





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READERS' FORUM

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SME, I question the principle and practicality of attempting to exclude persons who cannot be classed as being "friendly to the United States government". I know that such phrases are currently popular with constitution-writers, but actually what harm (or comfort to the enemy) would come if Vinshinksy himself became a member (most unlikely, I will admit).

The Russians claim to have invented everything anyway, so what harm if they gain possession of the innards of the Klipschorn or discover that on a certain Alaskan island there are ten high fidelity rigs among the hundred and twenty-five families?

What seems to me to be more difficult (after deciding WHO decides who is friendly) is how the organization can hope to cope with the deviations and deflections from this friendly attitude. Do you anticipate publishing a monthly check list of nationalities correctly acceptable?

If you can be SURE . . . please send a copy to the State Department.

With all good wishes.

Romayne Potosky Annette, Alaska

SIR:

In reply to Mr. Bender's letter in the November-December issue: EF37 tubes are obtainable from several wholesale houses in Britain at reasonable cost. The tube fits a standard octal socket with connections as shown below.



If desired, the circuit could be redesigned around American type 6J7 or 6SJ7 tubes with a minimum changes being required. These tubes are very nearly equivalent to the EF37-A. There is, however, no exact replacement.

Alan G. Sorenson

SIR:

Napa, California

On the subject of records, can anything be done to get the record manufacturers to eliminate CRACKLE and POP — desirable in breakfast foods but the bane of LP recordings? Another "gremlin" is RUMBLE — why buy expensive turntables to banish rumble and find it on otherwise good recordings?

Why not have playing time printed on all record labels? This would tend to stop the

Continued on page 96





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Oceanside, L. I., New York

We Spent the Summer with Mr. Bach...

How a group of amateurs made the first complete recording of the monumental *Clavier Ubung*.

By DAY THORPE

THERS MAY champion Russian roulette, or stockcar racing, but I will always maintain that the most hazardous recreation I know is audible musing or, as some prefer to call it, wondering out loud.

I was pursuing this avocation one evening last spring in the presence of a trusted friend, Wayne Dirksen. There was no mysterious roll of thunder on the left, nor other omen. All seemed serene as I mused audibly along, covering several subjects. Finally I got around to wondering out loud just how good a phonograph record could be, in its fidelity to the original sound.

Wayne didn't know and, at first, anyway, didn't much care. He is an organist, composer and choirmaster who gets his musical problems during the working day. After hours, he prefers the pleasures proffered by poker and bourbon, or four-hand piano improvisation. However, so brilliant, compelling (and inexhaustible) was my audible musing on the subject of phonographic technique — especially coming from someone who knew next to nothing about it — that he finally succumbed.

"Okay," he said, "I don't know what you're blowing off about, but let's give it a whirl."

Ardent encouragement of this sort was exactly what I needed, and in five more minutes we found we were firmly committed to making some records ourselves. Not just ordinary records, either — these were to be of tonal excellence so close to our hearts' desires that we would have no objection if some astute record company wanted to print them. We planned to spare no effort nor expense, and to drop the project without regrets if results seemed unsatisfactory to either of us at any time. No doubt all this may seem a trifle brash or visionary to professional record makers. Probably it was. But the astounding fact is, after about ninety times as much work as we had planned on, we came remarkably close to achieving just what we hoped to.

Choosing the *Clarier Ubung* of Bach as the music to be recorded was the one step in our operation that did not entail much discussion. It was entirely propitious. It was one of the truly great masterworks. It had never been recorded as a unit in its entirety. It employed harpsichord and organ, both instruments of which faithful recordings were unknown to me. And at hand to perform it were Ralph Kirkpatrick, harpsichordist, and Paul Callaway, organist, two ardent and expert Bach-men, both friends of ours. We warned them of the hours of experimentation we dimly saw ahead of us, but they joined the project without hesitation. With Ralph and Paul, the group later to be known as the "Quodlibet Society", was complete.

The first step was to decide upon equipment. (I should say at this point that no one of us had or has any connection whatever with any manufacturer of audio equipment, and also make clear that our comments represent the opinion of non-professionals, with experience limited to what is told in this story.) Our inquiries brought unanimous response that the Ampex was the tape-machine we wanted, but opinion on microphones was divided. We were variously advised to use (a) the Altec 21B, (b) the Altex 21B with the metal head filed away, or (c) the Telefunken. We determined to test all three and, as a Telefunken was difficult to find — at least it was last June to start with the two Altecs. We used M. M. and M. Scotch tape.

The room we picked as most nearly ideal for the harpsichord was the music-room in the home of Mr. and Mrs. Beecher Hogan, in Woodbridge, Connecticut. It is about thirty-four feet long, twenty-two feet wide, nine feet high, quite live, and subject to easy acoustical modifi-

The entrepreneurs of the Clavier Ubung: Day Thorpe, Ralph Kirkpatrick, Paul Callaway and Wayne Dirksen, with score and Ampex



cation by drapes over French windows on two sides. The Hogans were to be away for the summer, and very kindly turned their home over to Sebastian Bach.

During the past forty years, the harpsichord has regained some of the popularity it lost to the piano after the last decade of the Eighteenth Centuty. However, its comeback has been marked by overemphasis on its percussive



NORMAN DRISCOLL

Kirkpatrick at the barpsichord. A tiny error nearly brought ruin.

quality and neglect of its cantabile legato and its power of dynamic inflection. How more easily could the modern proponents of the harpsichord demonstrate its difference from the piano than by making it out a sort of giant guitar, twanging out Turkish marches for the Queen of Brobdingnag? All too often this misconception has been furthered by certain recording engineers with a strange yen to make the instrument imitate either the breaking of crockery or the tonal coloring of an orchestra.

Even if I were capable of describing the ideal harpsichord of Bach, with historical documentation, this story of a recording would not be the place to do so. The records we made, however, do illustrate our conception of the ideal harpsichord — vocal, clear, with a small but flexible dynamic range for each set of strings. Ralph has an instrument which he considered perfect for recording, though its subleties are lost in a large concert hall, and he does not often use it in recital. It is an instrument with four sets of strings — two eight-foot, one four-foot, and one sixteen-foot. It was made by Arnold Dolmetsch for the Chickering Piano Company in 1909.

Wayne and I drove to Woodbridge from Washington, D. C., our home, in June, for the first series of tests. We wanted, if possible, to find a single location for the microphone for the entire haprsichord part of the *Clavier Ubung* — ten works: the six partitas, the *Overture in the French Manner*, the *Concerto after the Italian Taste*, the four duets, and the *Goldberg Variations*. If we could find one location for harpsichord and microphone, and one gain level for the Ampex, we reasoned, the result would be a closer approximation of the original than if we tried to accommodate each type of sound with a, different set-up.

There followed tests with the microphone near, far, high, low, bent on its goose-neck at an angle, straight up, on the rug, off the rug, under the harpsichord, and even delicately protected by a parasol. We used the stockmodel Altec and the — as it was soon known — circumcised Altec. Ralph would repeat a series of eight or ten passages from the *Clavier Ubung*, selected to represent all the basic sounds to be encountered — solo stops, lute stops, full instrument, and the various combinations and mutations.

Our findings did not greatly surprise us. As the microphone was moved away from the instrument, rhe signal tended more and more to swim; if it was set too close, the sound was harsh and the mike would exaggerate the parasitic noises of the harpsichord. As the floor and ceiling were approached, odd reverberations and distortions appeared. It seemed impossible to find a spot where the balance of bass and treble was true, and where the various gradations of volume were natural.

The harpsichord is an instrument weak in fundamentals and very rich in overtones. The difference between the two Altecs, while extremely slight, we found to be that the altered Altec. lacking the resonance of the metal head, did not do justice to the fundamental tones, while the store-bought Altec reproduced the high partials beautifully. We decided on the unaltered Altec, and after days of testing and playing back, listening and criticizing, chose a spot for the mike five feet from the belly of the harpsichord and five feet from the ground. It was amazing to what extent the shifting of the mike even as little as six inches changed the character of the sound. The Altec may be almost as discriminating as the human ear, but it certainly is much less adaptable.

At this point we got the Telefunken we had been waiting for. This marvelous instrument with its two adjustments, the omnidirectional pattern like the Altec's, and the "heart shaped" pattern which minimizes sounds on three sides and brings into sharp focus sounds from the fourth, we put through all the tests we had made with the two Altecs. It was soon evident that location was less important to the Telefunken than to the Altec. It was excellent almost wherever we placed it, and the results with the omnidirectional pattern, which gave an unbelievable sense of "room presence", were brilliant. We cheered, but were deluded by novelty, for we found that when we spliced Telefunken tests and unaltered Altec tests together, we were completely unable to distinguish one from the other.

Well, we had it now — the studio conditions to make an excellent harpsichord sound. At this point we made our first serious mistake. Ralph thought the best way to do the recording work would be to do it alone and at his leisure. Wayne had done his job, and I would no longer be needed to run out for cold beer. We would go back to Washington, Ralph in the stillness of the night would come in, turn on the machine and play each movement until he was satisfied. In two or three weeks we would reassemble, select and edit the best takes, clap the reels into boxes, and then consider the problem of recording the pipe-organ.

It seemed a good idea. The microphone was in the position it was to hold throughout, and there was to be no monitoring of gain whatsoever. One person could do the job as well as two or three. So two of us went home and Ralph recorded all of the harpsichord works of the *Clavier Ubung*. Three weeks later we returned, exchanged greetings, threaded through the head the first 2,400-foot roll of five cases of tape. We heard a sound from the loudspeaker like the approach of Mozart's Commendatore terrifying Leporello, as Ralph strode through the empty house from the control room to the harpsichord. Then the cue: "B flat Partita, Praeludium, take one." Then followed the sound, obviously so right, yet disquietingly so wrong. What had happened?

What had happened was that early in the recording indeed, after nothing more than two movements of the Italian Concerto had been made — the equalizer button on the Ampex, set at 15 inches per second, had somehow been turned to 7½ inches per second. Ralph had naturally been more interested in playing than in playing back, and had not noticed the error. He had sent us his finished tapes, from time to time, but on different play-back equipment and under different acoustic conditions, we had not noticed a distortion that now seemed to us appalling. Our harpsichord takes were ruined.

Even apart from this misadventure we know now that recording *solus* is not wise. Somebody should always be between the headphones at the machine, if for no other reason than to be able to erase bad takes immediately. Listening to play-backs is the most intense and onerous part of recording, and if obvious flubs are erased from the tape at the time they occur, the job of choosing between the many remaining takes is greatly facilitated.

It was now decided to start again from the beginning, the three of us staying at Woodbridge until the work was done.

For the next ten days the three of us worked almost around the clock. Ralph, who besides playing had to tune the harpsichord at least twice a day, would record, listen to playbacks, work out new stop combinations registrations best suited to the recital hall are not always best for the intimacy of a microphone performance and now and then sleep a little. Wayne, when Ralph was off-duty, would reject bad takes and splice up the good ones, and perhaps sleep a little, while I would still try to keep everyone supplied with beer and pastrami.

The first day we noticed a very slight waver in the signal, and after several hours of experimentation decided it was caused by too great tension on the take-up reel. Not only did freshly recorded tape show a slight waver, but tape made earlier, that we knew did not waver at first, was also defective on playback. There followed a long repair session conducted with the telephonic advice of Warren MacDowell, of the Gallant Engineering Company in Washington, a man who throughout the existence of the Quodlibet Society has shown incessant availability, inexhaustible patience, infallible advice, and the interest of the proverbial Sunday-hiking postman. Whether we were successful in repairing the Ampex is still in doubt, for on reassembling the machine we broke a contact on one of the solenoid relays and were thereupon completely halted. The engineering and transportation staffs of the Society drove four hundred miles to Washington, exchanged the ailing Ampex for another, and were back on the job in Woodbridge in twenty-four hours.

The purchasing department added several new cases of tape to the beer-and-pastrami shopping list, for even though a fresh signal sounded perfect on the old stretched tape, the unhealthy corrugated appearance of the tape made us feel that peace of mind was worth the cost of fresh tape. (By the time we were finished with the *Clavier Ubung*, we found we had imprinted Bach on seventy 2,400-foot rolls of tape, more than thirty miles of it. This includes, of course, the twenty-eight rolls of the finished work and the copies we made to insure against loss or damage.)



Callaway at the organ. Baroque flavor was applied in moderation.

Our decisions on many questions of procedure I will set down at some length, for I think that while they will be of no great interest to the average buyer of the records, they will satisfy the curiosity of the HIGH FIDELITY reader.

1. No take was used that was not acceptable to any one of the three of us.

2. All repeats were actually played twice, not copied and spliced in.

3. Pedal noise of changes of registration between movements was to be cut out. In actual performance this sound is not objectionable. On a record it is distracting. The noise that may be mistaken for pedal noise is the release of the keys at the end of a chord. Nothing can be done about this sound, for if it is cut out, the chord or note has a sudden and artificial ending.

4. Splicing within the movement was allowable, of course, only when it was absolutely undiscernible. No splice that we used could be noticed even when we played it back at $7\frac{1}{2}$ inches a second. The finished result of a successful splice is almost unbelievable to a novice, yet even with the tape running through the machine at 15

inches a second, the ear will easily detect a 1/50-inch error. Wayne spent as long as four hours trial and error on a single splice.

5. Silence between movements was to be made of tape on which room-sound had been recorded. The only paper leader used in the entire fourteen record sides was between two separate pieces, the Four Duets and the Italian Concerto. This was important when playback of tape was concerned, but it is a question whether it made any difference on the finished record. The surface hiss, although extremely slight, obliterated the distinction between paper tape and room sound.

6. No change of record gain, of microphone position, or of room characteristics, was made throughout the entire harpsichord series. All distinctions of sound of the harpsichord would be the result of the instrument itself. We recorded at the highest possible gain in order to get the best possible signal on the tape, but the records should be played back at the lowest possible gain consistent with a good round natural sound.

At first we would record a movement several times until we thought we had a good take, and then play back everything we had done to make a final choice or rejection. I am sure that those with experience in the matter will bear me out that this is no way to do the job. It is almost impossible (unless, of course, one is a music critic) to listen to half a dozen performances of the same piece by the same artist at the same time and make a valid decision as to the merits of each. Ear fatigue is a very real thing, and the ear accepts the last sound it has heard with great readiness. We found that the best procedure was to record a movement once, then record it again. At that point, if Ralph thought the performance could be improved upon, we would record it a third time, after erasing the second take. This sequence could go on indefinitely, but always in the end we had to choose between just two takes.

Ten days finished the job, but they were ten days of almost continuous work. At one time the Ampex was not turned off for forty-two consecutive hours. We put Ralph on the plane for a European vacation, and driving home Wayne and I discussed improvements on the Ampex and Altec. (I anticipate at this point to say that we found the "circumcised" Altec much superior for the organ works. The heavy fundamentals of the deeper organ stops were inclined to set up a vibration, or beat, between the diaphragm and the metal head of the regular Altec that resulted in a very discernible "wow". Again the Telefunken matched the best the two Altecs could do, but was no better. We used the Altec.) We felt that Altec-Lansing would do well to make the metal head of the mike detachable, so that one microphone could be used either with or without the head. If there is any disadvantage to this, it is not obvious. As for the Ampex: 1) It should have handles big enough to let someone larger than a midget get his knuckles through before trying to lift its eighty or so pounds; 2) It should have a better rewind mechanism. It is almost impossible to guide the tape with your finger so that every time it rewinds smoothly, expecially when you are working with spliced tape. And if the reel pinches

a single loop of tape that sticks up above the level of the rest, a flaw in the signal is the result, not necessarily because the tape is damaged but because it does not lie absolutely flat against the playback head. The best way to rewind tape, incidentally if you have the time, is to reverse the reel and then run it through forward on the take-up spool; 3) A red light or similar device to indicate too-great tension on the take-up spool. When the spool is too tight, there is a waver in the signal, very slight at first — almost unnoticeable. We had this trouble four times on two machines, and any device that would indicate it positively and immediately would be welcome.¹

Tape itself, though an incalculable boon to recordmakers, is still something short of foolproof. For one thing, there is the fact that recording tape will "offset" within six weeks or two months after a signal has been recorded on it. (I am assured that this is a fault common to all tape, not just M. and M.) What happens, not to be technical, is that one layer of tape, in a reel, "sheds" a faint magnetic print of its signal on the layer above it. In playback, this yields a tiny, ghostly pre-echo. (This also can be produced on disks by too-close groove-crowding.) However, an offset-anticipation of an initial attack, if it shows up on the finished record, is evidence of laziness on someone's part, since the tape can be cut at the moment of the first musical note, and "room-sound" tape spliced in ahead of it.

The other serious flaw in Scotch tape seems to a layman to be unforgivable. Can it be that the manufacturers, with their vast experience with all sorts of adhesive tapes, are unable to devise a splicing tape the reverse of which will not stick to the next loop of tape wound on top of it?² Such adhesions caused us considerable annoyance, since they made the brake-arm of the Ampex vibrate, with a hideous flutter as a result. Talcum powder on the splice was suggested to us as a remedy, but we were always fearful of fouling the recording head. For want of a better solution, I now store all spliced reels unwound, rewinding them only when they are to be played. When a better way to waste time is needed, no doubt modern science will discover it.

We had the harpsichord tape in boxes now, and Wayne and I, briefly kissing our wives hello and goodby, started in on the organ recordings.

We approached this part of the job with extreme misgivings. Conditions seemed far from ideal. In the first place, the organ in the Washington Cathedral was built

¹All Ampex portable models now use Stanley hinged metal handles. Earlier, due to procurement difficulties, some had to be fitted with leather handles. The high speed (2.400 feet in 90 seconds) rewind trouble Mr. Thorpe com-plained of comes from air trapped under tape at low tension and high speed. Most buyers want the high speed despite its hazards. Rewind can be slowed down, however, for more even wrap by adding resistance in series with turn-table motor field. As for take-up tension, the proper adjustment is 7½ ounces, as stated in the instruction book. Once set, the tension will not change. (E. G. Swanson, Ampex Electric Corp.)

²To avoid crosstalk, care should be exercised by the recording engineer in keeping the recording level below overload. If crosstalk already exists, Mr. Thorpe's suggestion of splicing in tape with room sound on it is an excellent way of masking the echo. Additional information can be found in the August 1952 Electronics article "Selective Erasure of Magnetic Tape Crosstalk" by Herr and von Behren. Mr. Thorpe's problem of sticky splices made with cellophane tape can be corrected by using Scotch Brand Splicing Tape No. 41. Its acetate backing and white thermosetting adhesive are specially designed to meet the critical requirements of splicing magnetic tape. (C. G. Westcott, Minnesota Mining & Manufacturing Company).

in 1937 by the Skinner Organ Company, not as a baroque instrument designed primarily for the music of Bach, but as a versatile organ designed to fulfill the many requirements of a cathedral. It is, in truch, a "God-box", and the ways of the Lord are manifold. Moreover, the acoustics of the Cathedral are not suited to quick-moving contrapuntal music, although indeed Bach himself encountered comparable conditions in Leipzig. Reverberation is always present, and sometimes lasts as long as five seconds.

On the other hand, the Cathedral organ is an instrument with a real and convincing personality; it has, as Wayne and Paul agree, a "soul", and like Whitman it contains multitudes, excluded from which are certainly not genuine baroque sounds. As for the acoustic problems, we planned to overcome them — or make the records elsewhere.

The pipes of the organ are ranged along the two sides



Washington Cathedral. An acoustic demon haunted marble floor.

of the Great Choir, fifty-five feet apart and each extending seventy-eight feet from the rood-screen toward the altar. The mouths of the largest pipes are sixty-five feet from the marble floor. Wayne conjectured that it might be the vast marble floor of the Cathedral, from which the usual auditor heard the organ, that caused the distortion of sound, the sense of swimming. He felt that if the microphone were raised far enough from the floor so that the primary source of reverberation would be the domed ceiling, the sound would be clean and relatively echo-free. However, even if the proper spot for any given rank of pipes could be predetermined, which of course it could not, that spot would not be valid for the entire recording, made up as it was of twenty-three movements, with many different registrations. To overcome this difficulty, he devised a block-and-tackle rig with clothesline and pulley that would place the microphone anywhere within a quadrilateral, 78 feet by 65 feet by 55 feet. This wonderful invention would hoist the microphone high in the air, its power-supply box dangling below it with its red eye glowing like some airborne Polyphemus.

Experimentation for the organ records was even more extensive than that in Woodbridge for the harpsichord. Every individual registration used in the work had to have its own mike placement and record-gain level. What we heard on the earphones seemed to have little relation to the signal on the tape; the bass frequencies were lost, the highs exaggerated. We would play back each of the tests on a second machine in another room so that the pronounced characteristics of the Great Choir would not be doubled over the loudspeaker. The altered Altec was superior to the original here; the loud, low frequencies did not reverberate between the diaphragm and metal head. It was used exclusively. We thought for a time that it was going to be impossible to achieve perfect clarity of all voices and timbres, but finally after days of trial and error --- which lasted usually from the time the Cathedral was closed to visitors at six in the evening until the first service at seven-thirty in the morning - we made our last retake and approved the last of the hundred-odd movements of the Clavier Ubung.

Editing the organ tapes was different from editing those of the harpsichord in one important detail. Every individual movement of the organ works had to be played note-perfect from beginning to end, for making an internal splice of organ music is impossible. With harpsichord or piano, the sound of each individual note diminishes from the moment it is struck, but the volume of an organ tone is absolutely constant. (I disregard the swell, which of course is not used in the Clavier Ubung.) Therefore, when ready to splice, if you move the tape through the head very slowly for a quarter of an inch with your hands, searching for the spot where a new note is attached, you can find the spot - on a harpsichord recording. With an organ, it is impossible; your notetransition is completely obliterated by the steady signal of the other notes. Another change of procedure was necessitated by the fact that we used different record gains in the organ recording. At first we found that the room noise between the movements was unpleasantly dissimilar. We got around this by continuing the room noise of one piece until the very instant of the start of the next, thereby allowing the first note of the new piece to obliterate the change. Incidentally, we arranged the final tapes so that a change in volume on the playback amplifier is seldom necessary from beginning to end of the organ works. Possibly such pieces as the little Wir Glauben can be cut back a bit, and such pieces as the final fugue can be advanced. The volume need never be changed within a movement, it goes without saying.

Tom Crowder, president of the Haydn Society, had heard of our self-imposed ordeal, and had become interested. We talked to him, *Continued on page 118*

I Recorded it Myself

By OLIVER BERLINER

The Why and How of Building a Tape Library

F, DOWN inside you, you really get a kick out of high fidelity reproduction in your home, you can double the kick — easily. The formula comes in four delicious words — "I recorded that myself".

If you haven't already tried adding an aspirin to your rum and coke, sit back and dream for a moment. Beautiful sound . . . comfortable chairs . . . music . . . friends admiring . . . "Where'd you get that record, Sam?" . . . "Oh, that's not a record. I recorded it myself."

Maybe you feel "high fidelity" is something worth having, because it makes the music nicer to listen to, but, after all, it's the music that counts. It's the memory of that rare performance of Janesovsky's Unfinished Quartet that makes you dream . . . how you'd like to hear it again! Well, why don't you? You could have recorded it yourself!

Well, let's be serious. There is a lot to be said for recording your own sound. It can be done for fun, or it can be a serious undertaking with a definite purpose. Whatever the reason may be, home recording is not hard and, once a recorder is acquired, need not be expensive. What are some of the practical aspects?

Selecting the Recorder

Obviously, the first and most important decision is: what recorder? There are dozens of makes and models on the market, ranging in price from under a hundred to several thousand dollars. You should study all the literature available; examine and compare the specifications furnished by the manufacturers; read the articles in earlier issues of HIGH FIDELITY and the sections of books (such as "Make Music Live") devoted to recording equipment. Compare frequency range at given speeds, and note the "plus or minus so many decibels" for the range at the specified speeds. Compare wow and flutter. Check the size of reels which can be used. And also — compare prices.

True high fidelity is hard, if not impossible, to achieve at tape speeds of less than 15 inches per second. Therefore, if wide frequency range is a requirement, you will probably need a machine capable of operating at the 15 ips speed. Most professional music recording is done at 15 and 30 ips. Some semi-professional music and a great deal of non-music (*i.e.*, broadcast station interviews) is recorded at 7½ ips. Therefore, equipment which will record at 15 ips has come to be regarded "as professional". Prices begin around \$300.

Installation and Connections

Recorders, like most electronic apparatus, must be adequately ventilated. They do not require forced air cooling, but they should never be operated in areas such as closed drawers or closets without suitable ventilation. If you use the recorder in a carrying case, be certain that the air vents are never covered. When designing a specially constructed base for the recorder mechanism, try to make provision for air to enter at one point and leave at another point opposite it, preferably a bottom-totop arrangement. Shock mount the base plate of the recorder to minimize vibration.

The illustration shows a typical high fidelity equipment set-up. Basic equipment is a Lincoln record player, Radio Craftsman FM-AM tuner, and a Concertone recorder. This recorder operates at $7\frac{1}{2}$ or 15 ips and uses any size reel up to NAB, which makes it possible to record a full half-hour at the 15 ips speed on one run-through of the tape. At $7\frac{1}{2}$ ips, using double track heads, a total of two hours is possible on these reels. Most connections are made by plug-and-jack arrangements, and care must be taken to see that these fit tightly — a single sudden crackle from a loose connection will ruin a recording. Since high-impedance circuits are used, inter-connecting leads should be of shielded, covered, single-conductor microphone cable and should be as short as possible.

Making the Recording

The three principal sources of program material are: radio programs, extended-range disks, and live talent. Many concerts by live orchestras are available over FM stations, allowing you to record a great deal of music not available on records.

When using any of the three sources, always check and set the volume in advance, and always try to make a test tape to make sure that everything is functioning properly. When recording a radio program, make a test tape of the preceding program to determine the proper setting of the record gain control. You may find it advisable to readjust the tone controls on the tuner for certain stations. Allow enough time for the equipment to warm up and settle down to peak operation.

By an arrangement with your friends, you may agree to lend each other disks for dubbing. This is a way to avoid



Recording and playback facilities are centralized in one cabinet.

the purchase of duplicate disks, and to gain access to scarce recordings. An additional valuable feature is that dubbing disks eliminates the danger of wearing out rare records. The details of this process have been described in a previous issue of HIGH FIDELITY.

The choice of a microphone for live-music pickups is a real headache. Pickup pattern, frequency response, size and, of course, type and price all must be considered. Until recent times the standard microphone for orchestral recordings was the so-called velocity or ribbon type. However, this basic microphone has of late been augmented by high-fidelity, small-size microphones of various types. No matter what microphone you choose, it should have reasonably high fidelity, be as rugged as possible, be capable of feeding long lengths of cable (at least 50 to 100 feet) without loss of frequency response, and have an output level of at least -57db (unless accompanied by a mating preamplifier). Always buy the best microphone you can afford.

In the event that your recorder is designed for use with a high impedance microphone, it is possible to obtain a transformer from your supplier for matching a low impedance microphone to a high impedance input. This transformer is available in a form permitting it to be connected into the microphone cable, just before the recorder input, so as not to disturb the recorder wiring. Do not place the transformer alongside the recorder, as this may cause it to pick up hum from the motors or the power transformer. Low impedance microphones are desirable when using long cables, as there is then no loss of high frequency response in the cable. The new-type microphones have brought with them a form of microphone placement previously used only in the recording of large symphony orchestras. This is the singlemicrophone pickup technique (as compared to the multiple technique).

It is highly recommended that persons unfamiliar with the simultaneous use of many microphones, work first with the single-microphone technique, with its ease of mike placement and obvious saving in cost of equipment. Under this method, one microphone, judiciously placed, is capable of picking up all instruments of an orchestral group of any size, and of keeping these instruments in their proper relation and balance.

An excellent method for determining the placement of a single microphone is to stop up one of your ears and listen to the music while walking around to various points in front of the group. Eventually you will reach a point where the instruments will all be in proper balance, and you should place your microphone here. In many theatres and auditoriums this optimum point has been found to be in the front part of the balcony. Do not attempt to get too close to the orchestra, as that may over-emphasize certain instruments, while others will be completely "in the mud".

Noticing the placement of the instruments in a symphony orchestra, we find that the instruments having less volume are located at the front, and this helps automatically to balance the orchestra for single-microphone pickup purposes. Keep in mind that rooms and theaters have less reverberation when filled with people, due to absorption of the sound (particularly the higher frequencies) by the body and clothes.

If you desire to record theater or concert hall performances, keep these suggestions in mind: after your equipment is in place, make a test recording to set the volume levels, and to insure that all the circuits are connected and functioning properly.

There is a tendency for inexperienced recordists to ride the gain too closely. This too-close control of volume limits the dynamic range of the recording, giving a very flat and uninteresting result. Set the record gain so there is no overloading on the loudest note, then let the orchestra take care of its volume range itself.

A final word of caution is necessary here. For theater installation, put the recorder in a spot where it will not get in the way of the performers, the stage crew, or audience. Use headphones rather than a speaker for monitoring. Try not to bother anyone with unnecessary questions, and above all, make demands of no one, and try not to ask favors. Otherwise, your welcome will wear out in one session.

Care of the Recorder and Recordings

In professional installations where tape recorders are in constant use, a system of preventive maintenance is followed. Heads and capstans are cleaned, and frequency response checks are made every day. Switch and relay contacts are also cleaned periodically. How often you should clean and check your recorder depends, *Continued on page 108*



FOR HOME INSTALLATIONS



It is interesting to note that the arrays above and below both illustrate the "entertainment corner" principle.



• The main idea here exploited by Voice and Vision, Chicago, and Gateway to Music, Los Angeles, is that equipment can be mounted to form a decorative wall-space. The Gateway installation, lower left, makes use of what was once a seldom used double door to a sun porch. The two V. and V. systems both furnished the happy equipment buyer with welcome extra shelf-space, for books and what have you?




When night dims the skyline view, counterbalanced television chassis swings up to compete with it.

• Sophisticated right down to its false book-backs (which include Byron's Poems!) is this Voice and Vision equipment cabinet in a Chicago skyline residence. The loudspeaker enclosure, not shown, is elsewhere in the room. The equipment looks "built in" but is actually easily movable.

CONTINUED



deas



● In Washington, D. C., where the Shrader Manufacturing Company holds forth in historic Georgetown, an installation-man must know how to deal with period pieces, antique or reproduction, and Bill Shrader does. Above is something externally Colonial. When its sturdy doors open, neat modernity is exposed. Below it, Shrader shows how to cater to another Washington phenomenon, what might be called the squire-impulse: the paneled gun-room becomes a paneled TV-andmusic room as well.





Equipment boxed in modern simplicity by Hollywood Electronics of Los Angeles.



The home-crafted look, in pine, offered by Electronic Wholesalers, Washington, D.C.



• Above and at right is a super-bass installation by Victor Brociner, New York. A rear-loading horn begins behind bass-speaker (leftmost grille) and runs, expanding as it goes, to the far right, where its giant mouth occupies the last two grille-frames.



Let's talk about Diamonds

By MAXIMILIAN WEIL

Some TIME ago, a national magazine received advertising copy for a sapphire-tipped phonograph stylus. In the copy, it was claimed that the stylus would last a "lifetime". Quite properly, the magazine rejected the advertising, on the grounds that the claim was a misrepresentation, as it was. Furthermore, it wasn't even a credible misrepresentation. It is safe to say that, by now, the record-buying public is fairly well informed, through actual use, about the life-span of a sapphire stylus. However, they know little and are much confused about diamonds.

This is not to say that everyone who deals in diamond styli also makes confusing claims about their performance. First-rate diamond styli are being made and honestly advertised. The writer's own company sells diamond as well as sapphire styli. Still, there are now in circulation some claims so extravagant that even the finest diamond styli could not live up to them.

Such claims do double damage, for how is the conscientious manufacturer or dealer to meet them? Is he to join in the same kind of merchandising? Stick to facts, and let sales suffer? Or fight? The writer usually has accepted the last-named alternative. In the early 1940's, sapphire tipped styli first invaded the consumer market in quantity. The publicity which accompanied this invasion was the purest fiction. Certain makes of styli were claimed to be good for 2,000, 5,000, even 10,000 plays! Yet most of these were to be used in old pickups, tracking at up to a quarter-pound pressure and about as compliant as a pickaxe. Under such conditions, a dozen plays could and no doubt did - grind a sapphire tip into something resembling a sculptor's chisel. Countless music lovers were being invited, in effect, to ruin their valuable records.

This writer held, and still holds, an unfashionable opinion. He thinks manufacturers owe their loyal customers some loyalty in return. Hence, at considerable expense, he ran advertisements in 22 leading newspapers warning record owners against exaggerated stylus claims. The reaction was violent, and bitter infighting went on for years. Finally it attracted the attention of the Federal Trade Commission. Misleading claims were forbidden, and the Sapphire War was over.

It would be unfortunate for the trade if the FTC had to take a hand in matters again, this time to restrain some

diamond-promoters. However, it would be even more unfortunate if the average record-owner were to be convinced that a diamond stylus is good for 3,500 plays, or that all diamonds are equally durable, or that any diamond is the best possible stylus for all uses. Yet legends to this effect are being built up every day by publicity about "permanent" diamond styli. There is no such thing as a permanent stylus. A diamond must be checked for signs of wear as vigilantly as a sapphire, if less frequently, and even more vigilantly for initial defects.

Diamond-dust is the abrasive used to shape and finish both diamond and sapphire styli. Naturally, it polishes the softer sapphires much more quickly and efficiently than the harder diamonds. Even the finest industrial lapidaries cannot guarantee one perfect diamond microgroove stylus after another. Of the early diamond 1-mil points, many had to be rejected by stylus manufacturers. There has been impressive improvement but - as in other things - perfection has not been achieved. Among the writer's acquaintances is a young man engaged in the transfer to tape of an immensely valuable collection of lacquer transcriptions. Lacquer is very soft. After a few saddening experiences, he insists on testing every new diamond stylus by playing a few grooves of a soft testdisk. On soft master-disks, he uses sapphires. True, they need frequent replacement, but he has yet to encounter a rough new one. Another acquaintance, a record reviewer, once received two imperfect diamond styli in succession, and from a very reputable maker. These cases are not typical, but they are worth remembering.

The question all prospective stylus purchasers ask most urgently, of course, is: How many records will a diamond stylus play? The only short, honest answer may sound a little brusque. It is: Try it and find out. For a 1-mil diamond stylus may last through 700 12-inch longplay sides, or it may play only 200. There are many variables involved, including the diamonds themselves.

Nearly all the well-made magnetic cartridges, arms and turntables sold today are very much better than equipment found in homes in the mid-1940's, but there is nothing like uniformity in their performance. Arms vary substantially in design, mass, length, counterweighting, tangency and freedom of traversal. Some are damped. Still others are overbalanced by dead weight, then forwardbalanced by spring. Cartridges differ greatly in design, moving mass, compliance and another factor not much mentioned in recent years. In the art, we call it "hidden pull." It occurs in some pickups, and is exerted between the cartridge-magnet and a steel or iron turntable, drawing the cartridge down, adding, in effect, to its "weight." Oddly, "hidden pull" was always taken into consideration by designers of reproducers in the days when pickups operated with a point pressure as great as a quarter-pound, and an additional 10 or 15 grams in "hidden pull" was of small consequence. The old-style pickup heads kept above the turntable by the length of the steel needle. Today, with point pressures under 10 grams and the magnetic circuit only an eighth of an inch above the turntable, "hidden pull" is a very serious matter.

It may be alleviated by placing a non-magnetic disk (wood, felt, or the like) on the turntable to increase the distance between the turntable and the pickup structure. The arm mounting then should be raised by the same amount. Bear in mind that magnetic pull varies inversely as the square of the distance. Reducing the space between pickup and turntable from, say, one-fourth to one-eighth inch increases the "hidden pull" fourfold.

A simple way to test for "hidden pull" is to place a steel needle on a flat surface, approach the cartridge to it from above, and observe at what distance the needle "jumps" for the cartridge. Owners of aluminum turntables, of course, need not worry.

Even if all diamond styli were equally well rounded and polished, and all cartridges, arms and turntables ideally suited to long stylus life, a great deal of evidence is now at hand to show that durability still would vary, and vary importantly. Some of the evidence has been furnished to the writer by E. F. Hembrooke, chief engineer of the Muzak Corporation.

As it is probably needless to explain, Muzak operates a large number of wired-music centers throughout the United States and its island territories. For more than ten years, these centers have been transmitting music from pure vinyl disks. Their styli are diamonds, and are inspected by shadowgraph each week. If their records were transcribed laterally, and with a 1-mil groove, here would be the end of our inquiry. However, the records are hilland-dale modulated, and the diamonds 2-mil, tracking at heavier than home-equipment pressure. Nevertheless, one point is put beyond dispute. Diamonds differ widely. The Muzak diamonds, in terms of hours of play, seemed to fall into three groups — low, medium and high — and hence have been tabulated this way:

LOW DURATION	MEDIUM DURATION	HIGH DURATIO	N AVERAGE
310 hours	502 hours	840 hours	550 hours

Mr. Hembrooke added one colorful bit of information, which may start a migration of audio-perfectionists. Diamonds, on the average, lasted longer in the South than in the North. He suggested that perhaps the higher temperature softened the record-vinyl slightly, lessening its abrasive effect. Probably it also softened the damping material in the pickups. Viscous materials like viscaloid, or any of the jellied damping substances — vaseline, silicon jelly, etc. — soften under heat. This affords higher stylus compliance and, of course, lower wear. Unfortunately, peaks and overall imbalance in response also result.

Another set of test figures was compiled by the writer's own company, assisted by 108 cooperative home-music enthusiasts. Three makes of cartridge were represented; diamond and sapphire styli were used in each. The test comprised two years of normal home use, and the results paralleled the Muzak experience with some exactitude. Again the styli grouped themselves three ways:

JEWEL (1-mil) Diamond Sapphire	LOW	MEDIUM	HIGH	AVERAGE
	190 hours 18 hours	294 hours 31 hours	382 hours 49 hours	288 hours 32 hours

In terms of twelve-inch long-playing sides, the diamonds' average was 725, against 80 for the sapphires, giving the former an advantage of nearly ten to one. Some jewelstylus makers have expressed unbelief that sapphires could compete so well, but since most of these are men primarily concerned with diamond-processing, the writer is inclined to abide by the home users' findings — which, with respect to *diamonds*, seemed acceptable to the lapidaries.

Certain factors in stylus installation were found to be especially important in minimizing wear. The styluscompliance must be great, and the arm must introduce *no restraint* on stylus movement across the disk. Also, the stylus must be straight up and down with respect to the groove; it must not lean to right or left, toward either wall of the groove. It goes without saying that this is easiest to check when the stylus is mounted in full view.

The variation in diamond durability gives extreme importance to the question: How do I know when to change my stylus?

A microscope will show a tiny flat on any diamond after 40 hours or so of play. Thereafter, however, abrasion will slow down as the wear area is increased. Hence, in diagnosing wear, it is less the presence of a flat than its extent and configuration that are important. This makes a microscope almost useless to an untrained observer. He can see, but he can't judge. For home analysis, the writer's company recommends a test-disk, of material softer than vinylite and with unmodulated (i.e., soundless) grooves to fit both 3-mil (standard) and 1-mil styli. Playing a few grooves of this should show whether or not a new stylus is needed: a damaged or worn stylus will scrape the grooves, turning them visibly gray. Periodic checks with such a disk should detect stylus wear before it becomes dangerous to vinylite records*. Of course, the manufacturer of a pickup will gladly check its stylus by microscope or shadowgraph, and some dealers have the knowledge and equipment to do so also. However, this requires removal of the stylus assembly, or even the whole cartridge; hence it tempts the owner to defer his checking - perhaps until it is too late.

^{*}By the time this article is printed, such test-disks may be commercially available. Inquiries may be directed to the writer at the Audak Company, 500 Fifth Ave., New York 36, N. Y.

jazz: tape it while it's hot

By ROY H. HOOPES, JR.

OST JAZZ musicians steadfastly maintain that they play for each other, not for the audience, and no doubt they really believe it. However, any jazz fan with half an ear and a phonograph knows that jazzmen play best (even if it is for each other) when they have an appreciative audience. The excitement generated by an enthusiastic bunch of college students, the responsive, although sometimes divided, attention of night-clubbers, the reverent adulation of the jazz concertgoer, all seem to spark something in the jazz musician something that rarely ignites in the cold, electronic atmosphere of a recording studio.

Recorded jazz has traditionally lacked the inspiration and drive characteristic of the real thing. However, recent years have produced some notable exceptions and the

recording companies, although in some cases rather belatedly, have not failed to notice the difference — in the music *and* in the sales.

That undefinable something probably turned up first on records in 1945 when jazz impresario Norman Granz brought out Volume 1 of Jazz at the Philharmonic (Stinson SLP-23). It was recorded at a jazz concert given in the Los Angeles Philharmonic Auditorium, and neither the audience nor the musicians knew they were making records. The result was an inspired album which, overnight made How High the Moon a standard number in all jazzmen's books, and preserved some fine solos (as well as a few flubs) by Illinois Jacquet, Howard McGhee, Charlie Ventura and Gene Krupa. By today's standards the recording is inferior, but the music is relaxed and spontaneous, providing what righteous jazz fans have been arguing all along — that it takes more than

a green light in a recording studio to turn on a jazz musician's inspiration.

As the Jazz at the Philharmonic Concerts (they are now given in more than 50 cities every year) and the records that resulted, gain popularity, the musicians naturally became aware that during any number, somebody might be making a record. However, Granz does not record all the Concerts and he attempts to retain the spontaneity as much as possible by not telling the performers or the audience when a concert is being taped.

Fourteen successive volumes of *Jazz at the Philharmonic*, most of them on 10-inch LP's, now have been issued by Granz on the Mercury label. The recordings and acoustical balance have steadily improved with the development of tape-recording technique, and the series adds up to a musical appreciation course in post-war jazz. Unfortunately, many of the sessions wind up in a climactic high note-blasting. The honking tone of the modern sax, which tends to dominate the concerts, is a little monotonous in such large doses. However, Granz has captured some fine music from the trombones of Bill Harris and J. J. Johnson, the saxes of Lester Young and Charlie Parker and the trumpets of Roy Eldridge and Howard McGhee. Flip Phillips' tenor sax solo in *Perdido* (Vol. 8) is already legendary, and so is the humorous piano-guitar byplay between Shorty Nadine and Les Paul (Vol. 4), reminiscent of the subtleties of Art Tatum and Tiny Grimes.

Although Granz had the right idea, Columbia Records



Editor Avakian, enthusiast John Holland, maestro Goodman and engineer Savory express glee over test disks of the Goodman Jazz Concert No. 2 (1937-1938).

had the right band. In 1938, when Benny Goodman played his apparently immortal concert at Carnegie Hall, CBS, at Benny's request, relayed the music to their studios, where two sets of disk-transcriptions were made. One went to the Library of Congress. The other was lost in the confusion of jazz's nadir, to turn up 11 years later in one of Benny Goodman's closets.

When Columbia issued the Goodman Carnegie Hall Jazz Concert (SL 160) in 1950, any lingering doubts about the musical superiority of "live" over studio recordings were quickly dispelled. A generation of fans raised under the shadow of the Goodman bandstand, as well as younger brothers and sisters weaned on well-worn, but cherished,

Goodman 78's, agreed this was the real Benny. For youngsters who had never heard the Goodman band, and oldsters who recently "discovered" jazz, the records were a revelation. The excitement touched off by the first solo blasts of Harry James's trumpet in Don't Be That Way, and sustained throughout the Concert until Jesse Stacy's breathless piano solo in Sing Sing Sing, is the essence of jazz, and such raw doses of it have seldom been captured on records.

Probably the most significant thing the Concert did for live recording was to bring about the inevitable comparisons between the old Goodman studio recordings and the same numbers played at Carnegie Hall. Sing Sing Sing invites the most obvious comparison. As highly revered among jazz lovers as was the old 12-inch 78 recording, it sounds like a Freddy Martin rehearsal beside the 12 minutes of frenzied playing that it took Goodman, James, Krupa, Stacy and the band to get the jazz classic out of their systems the night of January 16, 1938.

The phenomenal success of the Goodman Carnegie Hall Album¹ and the steady sales rung up by the Jazz at the Philharmonic series² quickly stimulated emulation. A flood of "Jazz Concerts", informal jam sessions and radio broadcasts soon appeared in the record racks in colorful LP jackets. Most of them came from small almost unheardof companies - companies whose assets amounted to no more than a tape recorder, an office and access to a few uncommitted musicians. (For a sampling, see supplementary discography.)

In addition, the haunting music of an age gone by became louder and louder as the big name-bands of yesterday were "rediscovered" in increasing numbers. Glenn Miller was the next to turn up.

Miller, his own severest critic, always had records made of the 15-minute radio broadcasts he gave in the early 1940's. The broadcast dates were played in radio studios, but usually before a large audience. Included in the estate which Miller left³, supervised by attorney David

issued. ²The 14 volumes have sold over 750,000 copies. ³Miller joined the Army Air Corps during the war and organized the G. I.'s favorite service band. On the afternoon of December 15, 1944, after playing six months for U. S. soldiers in Britain, Miller took off in a single-engine Norseman C-64, bound for France. Purpose of the trip was to make billeting arrangements for his band. The Norseman disappeared into a fog never to be seen again.

McKay, was a rich collection of the broadcast transcriptions. They were all on acetate disks, and took up a considerable amount of precious Manhattan space. After thwarting several attempts by efficient employees to throw them away, Mr. McKay decided it was time either



Flip Phillips and Roy Eldridge live it up for aNorman Granz disk.

to use them or destroy them. He took a look at the band business and noted that the most popular bands of the day - i.e., Ralph Flanagan, Jerry Gray, etc. - were imitating the Miller sound. He then made a careful study of the transcriptions, and found they included 251 numbers Miller had never recorded commercially - a fact McKay thought would interest Miller's old recording company, RCA Victor. It did. In 1951, Victor issued the first of three volumes of Miller's live broadcasts. (LPT 16. 30, 3001).

Chief fault to be found with the broadcasts (aside from the inferior reproduction inherent in most live recordings) is that Victor avoided duplicating any Miller numbers already on records. Hence, many of the selections are of second-rate Miller arrangements. In addition, Miller's tight orchestrations allowed little freedom for spontaneous solo work, negating, to some extent, the value of live recording. However, Miller fans will like them, particularly the smoothies, Going Home (Vol. 1) and Georgia on My Mind (Vol. 1) and a distinctive arrangement



Jazztime U.S.A.: Decca's aim was to capture the "live atmosphere of excitement" with studio-quality. Terry Gibbs Sextet is featured.

It has now sold over 200,000 copies - more than any single jazz album ever issued

of *I Got Rhythm* (Vol. 2). Victor says more are on the way and also hints that live recordings of another band of the same vintage will be available soon.

The dynamic Woody Herman group of 1944-46 was the next big band to be revived by on-the-spot recordings. In 1946, Herman's Band gave a classic performance on Carnegie Hall's dignified stage, where the stomping right foot of a jazz bandleader no longer seemed quite so strange as it once had. It was a big moment for Herman, as it had been for Goodman eight years before, and he naturally had the concert recorded. The records were made on acetate disks from a single over-

head mike (which must, from the sound, have been close enough for drummer Don Lamond to tap on if he so desired) and must be described as poor. Lamond's rim shots and tom-toms sometimes nearly drown out Herman's whole, searing, 14-man brass-section. The band, made up of an impressive number of current jazz luminaries, is seldom heard in proper balance. However, M-G-M released the Concert in July, 1952, on two 10-inch LP's (E158, E159) and, despite the poor recording, it stands as a milestone in jazz. It is particularly recommended for jazz fans (like the writer of this article) who were overseas in uniform during the Herman Band's best days and missed the Concert. Herman's did more than any other band, during those lean days, to keep jazz alive. It provided a meeting place for prewar swing and postwar bop.

Live jazz on records got its next big boost through another stroke of good luck for Columbia Records. Back in the 1930's, Bill Savory, the Columbia engineer who transferred the Carnegie Hall originals to LP's, worked for various small recording companies, rebuilding their outdated equipment. In the process he made frequent "air checks" — equipment tests made by picking up a

Sociological or musical? Flanagan plays the Meadowbrook.





Harry James encountered a listless audience.

nately, an early and eager student of high fidelity. Some AM stations of those years broadcast fairly wide-range material

radio program and recording it on

acetate disks. Savory was, fortu-

broadcast fairly wide-range material, at least part of the time. To bring in the higher frequencies, Savory first used a Western Electric 10-A Tuned Radio Frequency Receiver, made into an acceptable high-fidelity set by the substitution for its diode detector of an infinite impedance detector. This receiver, in turn, was soon replaced with one designed by Norman Weedan. Then J. W. Miller, on the West Coast, designed a kit and coils which

enabled audiophiles to make their own TRF receivers. Savory used a Miller tuner improved by Don Foster (then

sound-effects man for WOR, now working for Columbia) with his own volume control circuit. Initially, Savory used an amplifier with push-pull, 2A3 tubes, and Audak magnetic recording head. Later he switched to RCA 6L6 tubes (after they became available) and a recording head which he made from an RCA MI4886 magnetic pickup.

He worked at night, and being a jazz fan (and pianist) it was not surprising that most of his air checking was done to the tunes of the great bands of the 1930's. By the time he went to work for Columbia, he had acquired



Glen Miller left a legacy.

an enviable collection of live music — mostly by Benny Goodman.

After the war Savory rejoined Columbia's engineering staff, and in his spare time transferred his bulky collection, which he had laboriously but faithfully hauled around the country while he was in the service, to 18 reels of tape. One day in 1951, Benny Goodman was listening to a playback of the Aaron Copland clarinet concerto, which he had just recorded for Columbia. When Goodman finished, Savory, seeing his chance, asked him to wait a minute. Then he played one of his tapes. "Yeah man, that's great music!" exclaimed the Chicago-born Goodman in his characteristic Southern drawl. "Where'd you get it?" Savory told him the story, commenting that it was a shame Goodman fans seldom heard music like that anymore.

Goodman agreed, and left. He had to make a trip to the West Coast. When he returned to New York, he went back to Columbia and asked for "that guy with the old band records — you know, the dark-haired one." When he found the dark-haired Savory, who, by the way, sports a Harry James mustache, Goodman told him that he had been thinking seriously about making some records from the air-checks. They went to George Avakian, Columbia's jazz editor-archivist, who readily OK'd the project and began work on the administrative problems — among others, clearance by the American Federation of Musicians, since the air-checks, naturally, didn't follow normal AFM recording rules. Meanwhile, the three of them listened to tapes in Goodman's Manhattan House apartment. For four solid months, they argued about selections, debated the technical merits of each recording and tried to identify the band personnel on each job, for royalty payments. When they finished, Savory transposed the final selection to LP's and by November, 1952, had ready 37 bonded samples of 1937-38 Goodman — two very good years which it chose to call Jazz Concert No. 2 (SL 180).

Although the band seldom reaches the emotional heights achieved in the closing numbers of its Carnegie Hall Concert, side for side, the second Goodman collection is probably a better production. In the first place, we are spared the questionable program feature, "Twenty Years of Jazz", which exhausts twelve expensive minutes of the Carnegie Hall recordings that otherwise might have been devoted to pure Goodman. In addition, there was a greater variety to choose from in compiling the second album. Savory had more than 140 numbers in his treasurechest of Goodmania, and in some cases as many as six versions of the same piece were available. As a result, the Concert No. 2 changes pace often and gracefully. The Concert No. 1 features the band's "standard" numbers, which Goodman naturally picked for Carnegie Hall.

Musically, there is not much difference between the two. Some tension is evident in the opening numbers of the Carnegie Concert, whereas the band is consistently relaxed in the second set. However, in both connections it is essentially the same Goodman band, at the peak of



Norman Granz began it all

its coordination and individuality, playing to live, responsive audiences that listen intently, like what they hear, and spark the band with their enthusiasm (or "feedback", as cyberneticminded jazz fans like to call it). Concert No. 2 is improved by more spine-tingling Harry James solos (particularly chilling on St. Louis Blues and Caravan) than there are in the first one, and includes a quartet attack on Everybody Loves My Baby that comes close to being the most exciting four minutes of small combo jazz ever recorded.

In most on-the-spot record-

ings, some degree of technical perfection has to be sacrificed and the Goodman records are no exception. The Carnegie Concert was recorded from a single overhead mike, as were most of the air-check records, and in many cases Krupa's trip-hammer pedal sounds like a whole rhythm section. Benny quite often played with his back to the microphone, watching the band or the music dulling the clarinet-tone. With all Savory's labors on behalf of fidelity, some factors were beyond his control. The broadcasting microphones themselves were usually inferior or ill-positioned, so that the sax section did not come through in balance with the brasses. The many ballrooms in which Goodman plays, during the course of the album, were obviously picked for the size of their dance floors, not their acoustical qualities. One element unique with the AM air-check disks, not unnaturally mistaken for the crash

of a Krupa cymbol, is an occasional crackle of static caused by lightening.

The enthusiastic response to live music has recently prompted record companies into some new and interesting experiments. The objective is to capture the fleeting inspiration that drives the jazz musician, and at the same time to achieve sound quality comparable to that of studio recordings. Present-day microphones make this technically feasible.



Decca's Mary Lou Williams.

However, the psycho-musical approach has not been uniformly brilliant.

Columbia used a simple approach to tape a full evening of Harry James and his band, playing at the Aragon ballroom, Chicago, last October 27. Columbia engineer Mason Coppinger used the equipment set up by Station WBBM to broadcast part of the dance-date, relayed the sound by wide-range wire to Columbia's local studio, recorded it there. The band knew about this; the audience — a rather lethargic one, incidentally — didn't. Driven by the James trumpet, the music has a powerful kick, but it is doubtful that the audience was much of an inspiration. Columbia's evening at the Aragon produced a single 12inch LP, bearing 11 instrumental numbers selected by James. It will probably be released this spring.

Victor tried another technique. Their engineers packed a truck-load of portable equipment and, on the afternoons of December 23 and 29, drove out to Frank Dailey's Meadowbrook, where Ralph Flanagan and his band were playing their danceable arrangements for lively holiday crowds. They set up a formidable array of audio equipment (including two Telefunken mikes suspended over the dance floor, to capture a little of the Meadowbrook "atmosphere") and when youthful Flanagan fans began to arrive, they told them, "Let's live it up; this is a recording session." They did not record every number, but on the ones they did, Flanagan conducted the band just as if they were in a recording studio - stopping and repeating a chorus whenever he was dissatisfied and in some cases repeating numbers three or four times before getting one that he liked. How much spontaneity was Continued on page 112

London Newsletter

D. W. ALDOUS

A NUMBER of firms in Great Britain and on the continent have tackled the problem of continuous recording of speech or mechanical sounds encountered in, say, airport control or laboratory testing of experimental engines.

These systems cannot be classified as "high fidelity", as the primary requirement in air traffic control is extended recording time, but it is thought that some details of two successful methods will interest readers.

The Simon Monitor Equipment, manufactured by Simon Equipment Ltd., of London, has been developed in cooperation with the Royal Aircraft Establishment at Farnborough for the Ministry of Civil Aviation. The apparatus consists basically of a twin-channel recording system designed for continuous 24-hour per day operation. The recording medium is an 80 ft. loop of 35 mm. acetate safety film on each side of which 120 tracks with lateral modulation are *embassed*, providing eight hours' continuous recording with one loading.

At the end of the film run or in the event of a breakdown, the second channel is automatically brought into use. Voice operation may be added to economize film when traffic is slack. The over-all frequency response is substantially flat from 200 to 3,000 c/s., and provision is made for a morse timing signal to be superimposed on the speech track at 1,000 c/s. during recording.

Another ingenious equipment has been developed by the Belgian firm of *Ateliers de Constructions Electriques de Charleroi*, marketed and maintained in this country by the Trevor-Johnstone Company, London.

This has a continuous-operation magnetic recorder; known as Type RVA 492, for which is claimed a runningtime of 192 hours, during which period neither break nor switchover is required. The recording medium is a band of magnetic paper, 254 mm. wide, which, of course, may be used, after erasing, an indefinite number of times. The entire band can be rewound in less than five minutes, and an additional refinement is the tabulation of time and date during the recording process. Reproduction from any part of the band can be made immediately without effect on any recording being made on other tracks at the same moment.

The recording head tip or "needle" moves across the magnetic paper at a rate of 8 cm./sec., recording each line from left to right and right to left as the paper moves up by 3 cm./min. The frequency response is from 300 to 3,000 c/s., a range sufficient for good quality speech reproduction. The erasing head covers the full width of the paper band and previous recordings are erased just before the band passes the recording head.

An important advantage claimed for this equipment is the marked difference between recording and advance band speeds. The slow band advance permits the energizing from the main supply at 50 c/s., for which method is claimed the advantages of the suppression of the usual 20 kc/s. oscillation, reliability of operation and circuitry simplification. Timing signals from a "talking clock" are normally fed continuously into the recording head, but they are suppressed by an automatic controlling amplifier during reception of signals.

ONE OF the largest manufacturers in the world of high-grade record players and automatic record-changers is the Garrard Engineering and Manufacturing Company. of Swindon, Wiltshire, England. A very extensive export business is handled by this firm. whose RC80 record changer is well known in the U. S. A.

My friend, Mr. E. W. Mortimer, the senior technical engineer of this company, thinks that their Model "T" three-speed single record playing unit will also have a wide appeal in America, as it is a high-quality unit at a reasonable price. I can confirm that it has a number of special features incorporated, ranging from a lightweight pick-up arm with optical indicator showing position of turnover pick-up (it will also accommodate most American pick-up cartridges), with stylus pressure adjusted by a knob at rear of pick-up base, to the fact that the unit occupies the minimum cabinet space and is available for all voltages and frequencies, even 6 volts d.c.

Mr. Mortimer revealed some of the design problems involved in the mass production of domestic gramophone motors and changers in an address to the British Sound Recording Association last year. The constant speed induction motor is generally used, with a friction drive to the turntable rim. A heavy turntable is impracticable with this type of drive, and so the motor is run in the saturated condition with constant slip at 1,340 rpm up to a torque of 25 gm./cm. A shaded four-pole stator is used and laminations for both rotor and stator are cut simultaneously.

Turntable spindles are form-ground in one operation to ensure concentricity of the different diameters and tapers. Rotor spindles are lapped as well as ground to give a good surface finish, with particular attention paid to the main spindle thrust bearing to prevent low-frequency rumble. The complete unit is given a six hour over-voltage test, followed, while still hot, by an insulation test. Finally, the human ear checks "wow" and "flutter" by a simple listening test. *Continued on page 126*



HIS IS, in essence, the story of a love affair. I am the hero. The heroine, naturally, is a beautiful princess who weighed approximately a quarter of a ton when first we met. The tale has all the elements of an exciting romance. It has drama, a rescue, a ransom, suspense and a happy ending.

My princess, when 1 first saw her, had fallen on evil days. She had been dethroned. Her royal mahogany raiment was dusty, even scratched here and there. But there was still an aura of power about her regal bulk as she towered over her unworthy company. She was a 1943 Capehart model 400-M, standing in the second-hand department of a downtown Fargo radio store. The moment I saw her, I knew I must have her. But mine was not the impetuous, devil-may-care or Erroll Flynn kind of yen. I decided a waiting-game was best calculated to win me my Capehart. She — and perhaps I had better start here and now referring to her as "it", before I get the part where I take her clothes off — *it* didn't look like an item likely to move in a hurry.

The second-hand price (this was in 1949) was \$750. The manager of the store told me he would cut this to \$700, just for me. His generosity was touching, but I steeled myself to reply that I guessed I would wait a year or so. 1950 saw the price drop to \$450. In 1951 it went to \$300, and still the machine sat in the store. Late in 1951, during inventory, I felt the time to strike had come. I told

the manager I was still interested, and that I would be happy to part with exactly \$125. Three weeks later the machine was mine.

At the time of purchase, I was in the process of building a new house, and much of the design of the living room centered around good listening. This is the point at which the princess lost her clothes. The carved mahogany cabinet was of no use to me. I got rid of it, and built instead a cabinet of White Canadian pine, a handsomely grained wood. The Capehart 16-E record-changer, a wondrous prehistoric monster that played 50 and 78 rpm. disks in any given order (and occasionally tossed one across the room), had to go. In its place I put a Garrard RC80, fitted with a GE variable reluctance cartridge. A pre-

Princess in Disguise

or: How we made our exCapebart

By MERLE E. NOTT

Author of this exciting tale is an ex-newspaper reporter and photographer, now public relations director at North Dakota Agricultural College.

amplifier and preamp-equalizer also were added. The rest of the Capehart's works were retained.

The receiver is a 13-tube AM-FM, with a standard broadcast band, a shortwave (5.4 to 18 mc) band, 25-31 meters band spread. The FM receiver covers the "old" 41.9-51 mc channel — no music until it's converted. The amplifier is a dual system, really two amplifiers, each with four 6v6G's in push-pull parallel, the whole array delivering 40 watts. The original speakers were a 12-inch and a 15-inch, electrodynamics with terrifically heavy drivers, 450 ohm fields and 8-ohm voice coils. To extend the range, a University 4401 tweeter, with adapter, and a high-pass filter have been added.

I mounted the speakers in the top of a closet wall across the 25-foot length of the living room from the equipment cabinet, which has turned out to be ideal for adjusting volume and tone. The sound varies slightly when too many clothes are taken out of the closet (I am contemplating stern security measures to prevent this). I find I have an excellent infinite baffle arrangement.

The living room is lined with four-by-six panels of striated plywood, which seem to give it fine acoustical quality. Indeed, I have found my set-up to compare favorably with any I've had the privilege of hearing. Various musicians and professional audio men who have gathered here occasionally to help me listen to my 1,800 records (I've been collecting since the late 1920's) also agree that the tone and clarity are excellent. To end the story fittingly, I am sure we will live happily ever after.



WXHR: Boston's all-classics station

By CHARLES FOWLER

T WAS about a year ago that the cricket appeared in the Woburn, Mass. studios of FM station WXHR. At first, he cowered in a corner, baffled and bewildered. From the monitor speaker in the corner, for six hours a day, poured classical music, interrupted only occasionally by a quiet, friendly voice telling about the next selection. Finally, the cricket underwent a change traditional

among new music-listeners. His initial shy and diffident silence vanished, to be replaced by full-voiced, articulate authority. He began to sound off. For what seemed to Manager John Thornton like endless weeks, every time his announcer's voice came on the air, so did the cricket's. No amount of searching could locate the cricket. Like any well-trained listener, he kept quiet during the musical



Program planning: station manager John Thornton, sales manager C. Stuart Grover (standing) and program director John Cameron.

selections and spoke his piece only during intermissions.

Listeners wrote letters addressed to "Dear Cricket . . .". An advertiser inquired: "Dear Mr. Thornton: Your promotion booklet says that WXHR 'enjoys a large captive audience'. Is that what I hear during your announce periods?"

Since WXHR has built a feeling of very close personal relationship with its listeners, the cricket episode was accepted in gleeful good humor and served to strengthen the bond between station and audience. That such a bond has grown up is a logical result of strict adherence by the station to its credo, stated in the booklet, "The Story of WXHR": "In operating WXHR, we are motivated by

See HIGH FIDELITY No. 4, page 60.

these beliefs: That this station, by virtue of its specialized programming and its unique commercial policy is good for the community. We believe there is a place in radio for friendly dignity and courtesy. We believe that by consistently broadcasting some of the most beautiful thoughts of man as expressed in the art of music, we are rendering a valuable service to New England listeners . . . We feel that we owe to our listeners a definite obligation, and that if we contracted to advertise products that were grossly misrepresented, we would be betraying a trust. In two years we have kept our promise to New England listeners, never to interrupt our music for commercial messages, never to take advertising which we felt in our honest opinion was not accurate in its representation . . ."

With this as a starting point, WXHR began broadcasting nothing but all classical music on September 1, 1950. At that time, there were an estimated 74,362 FM homes within its primary service area. By the end of March 1953, this figure will have gone well over 200,000, and there is no sign of slackening. The Boston metropolitan area is classical music conscious; the pioneering of WXHR has been aided by the opening of WGBH¹ on October 6, 1951 and by the continued good music hours from Boston University's station, WBUR. These three FM stations two of which, WGBH and WBUR, are non-commercial provide Bostonians with over 600 hours of good music every month.

Control desk at the Wohnrn studios. Note the five-pound weights on the turntables: they're used to flatten warped or buckled records.



To conceive, create, and operate a successful commercial FM good-music station, in Boston or anywhere else, calls for uncommon talent and ability, which John Thornton — and he is the guiding spirit of WXHR — happens to possess. He also happened to be in the right place at the right time. History does not record the conversation which took place early in 1950 when a dark-haired, rather intense man of 36 talked with Frank Lyman, Jr. about the FM station which Lyman owned and which was then part of the Continental Network. WXHR was staggering and seemed likely to topple at any moment; so Lyman was in a try-anything mood when his station's future vice-president and general manager asserted that there were enough people, in and around Boston, who wanted the best in music, broadcast with the highest possible fidelity,



John Cameron adjusts the controls at the studio. Record stacks are partially visible in background.

to support a commercial FM station, provided the stations' other assets included honesty, dignity and good taste. Frank Lyman, progressive and far-sighted, was also tired of trying to abide by the tradition that the average radio listener has a mental age of 9½ years and can be aroused from his moronic stupor only by blood, thunder, crude humor, and singing commercials. Besides, there was nothing to lose by trying.

History does record that Lyman said, "It's a deal. Go ahead and see what happens." History also records that Lyman and Thornton were right; their belief in other people has, to put it crudely, paid off handsomely. With a laugh at the preposterousness of the figures. Thornton points out that station revenue went up 2,500% the first year. It is still going up. The list of commercial sponsors keeps growing. Advertisers may shy away, at first, when confronted with the station's very firm commercial policy, modelled after that of New York's WABF:

1. The announcer assumes the attitude of a guest in the listener's living room. Thus courtesy and a normal conversational tone of voice are always maintained. 2. The commercial message must be intelligently prepared and be clear and direct in its selling context.

- 3. No singing commercials.
- 4. No long-winded, repetitious message.

5. No "come-on" type of advertising, exploiting fabulous bargains of questionable products in order to get the customer in the store.

However, once this policy is accepted, sponsors find that the loyalty of the audience to the station extends to the products advertised. To support advertisers, listeners have been known to go miles out of their way to purchase a specific product. And sponsors have learned that dignified, credible announcements ("commercials" is not the right word), coming at logical breaks in the music, carry far more weight than if, at precisely 8:07 p.m., the pickup

> is lifted off the record for an excited exhortation to rush right out and *buy*.

The fact that commercial announcements are fed in at logical pauses in the program, instead of adapting the program to a clock marked off in segments of blank space between commercials, is significant. It summarizes the WXHR philosophy of programming: the station is run for listeners; their interests are considered first.

When asked when the commercial announcements were made, John Thornton said, "Sometime during the evening. We sell half-hour segments up to 7 o'clock; thereafter, only one-hour segments are available. And by segment, we mean that insofar as we can, we'll get the sponsor's announcement in during the half-hour or hour specified.

"But we don't really have 'hours'. We don't have anything like 'The Opera Hour' or the 'Maxwell House Hour'. We believe that, between 5 and 11 p.m., when we are on the air, we should present as complete a representation of the different periods of music as pos-

sible. Thus, we don't back a Romantic period selection with another of the same period; we may have chamber music on at 8 tonight and at 9 tomorrow night. Programs are planned for the evening, in such a way that — and we know this for a fact — many listeners turn us on early in the evening and leave us on until we sign off.

"We are strong on cycles — on broadcasting, over a period of time, complete series. We had an all-Beethoven cycle, during which we played every composition of Beethoven's that had been recorded, which lasted 26 weeks. We are now in the 64th week of a Bach cycle, which is on from 8 to 10, approximately, every Saturday night. Friday nights at 9 we are broadcasting the Beethoven quartets — the Budapest recordings on Columbia. We have been going through the Beethoven piano sonatas on Mondays.

"I know," said Thornton, "that this type of programming can be successful; the experience of the past two and a half years proves it. I always believed it would be; what convinced me, nearly three years ago, was the experience of an AM station which had been broadcasting

classical music. Even though the commercials were out of this world - they interrupted a presentation of Bach's so-called Christmas Oratorio with plugs for an Atheist society - they had a following. Yet, when they switched from classical to an allpop program, 2,000 angry letters poured into the station. No doubt, we go to the other extreme. We, too, presented the Christmas Oratorio - over a period of six days, as Bach intended his work should be presented."

And Thornton spares no effort to make his programs as interest-

ing as possible. When the Metropolitan Opera company came to Boston for a series of performances in 1951-52, Thornton and his staff spent several hours with the company to make a tape recording in which the stars, the director, the conductor, all joined together for a lively, unrehearsed conversation about opera in all its aspects. The resultant 45-minute tape was used over WXHR with great success; it made human beings, not just voices, out of the great people of the stage. He still receives requests for repeat broadcasts of this tape.

Another successful program feature is the record première. WXHR contracts months ahead for first performance rights of outstanding records. And, to make the broadcast more interesting, to humanize the artists who have created the record, Thornton makes recordings of their voices welcoming the station audience to the evening's performance. Jan Peerce, for instance, spoke (through tape) on the evening when WXHR presented RCA-Victor's La Traviata. Plans for this broadcast had been made four months previously - which shows just how far Thornton will go to insure that each of his evening programs is a program - not just a series of recorded works pulled at random from a stack of

disks. Indeed, at WXHR, no disk is

ever pulled at random from a stack, either figuratively or literally. Records are requested, from their manufacturers, then, when received, inspected and tested before they are ever played once over the air. They are listened to and judged, rejected if not up to station standards, "calibrated" for optimum position of record equalization and tone controls, and then added to a library which already contains over \$15,000 worth of music on disks.

Even then, the record is not



"on its own". During the actual broadcast, it is monitored at the studio through good hi-fi equipment. A flip of a toggle-switch permits an immediate air-check; it has been found that what is heard at the studio console is not always the same as that which is broadcast from the antenna. A standard FM antenna and receiver is held constantly ready for such checking. If, in spite of these precautions, the music doesn't sound just right, it will be noted by an unofficial jury of three listeners spotted around Boston. A phone message from any one of them, reporting any-

thing wrong with the sound, calls for immediate action by the studio and transmitter staff. One member of this jury has a super hi-fi rig. His suggestions are listened to closely, but the WXHR staff admits that it does not program for him. It adjusts its equipment for good, better-than-average, high fidelity equipment. It knows, from repeated studies, that its listeners do not, in general, have expensive super speakers, capable of reproducing from 20 to 20,000 cycles without a whimper or a decibel of variation from "flat". Rather, the average is in the corner enclosure, single-speaker class, and it is for this average listener that the tone and equalization controls are adjusted.

Keeping them this way is the task of Chief Engineer Norman Graham, who sets for his equipment what may well be the highest standards in the Country. Every three months, every piece of equipment is checked for frequency range and distortion, right from the G-E professional cartridges to the antenna. The diamond styli are removed and checked by a jeweler on this same schedule. The Scott equalizer-preamplifier units (standard 120-A's, modified for broadcast use) are tested weekly. The objective is perfect reproduction; one specification in achieving this

> goal is that the transmitter, for instance, be held flat within half of one decibel from 30 to 14,000 cycles.

> The line-up of equipment includes G-E cartridges operated in Gray arms at 6.5 grams pressure. (With some embarrassment Norman Graham admitted that if a record with badly overmodulated grooves simply had to be used, because it was an only one of its kind, anything from 5 to 50 cents might be piled on the cartridge end of the arm to hold the stylus in the groove!) The turntables are 16-inch Rek-O-Kut cutting tables, driven by Continued on page 125



Cameron and Thornton select a "best record" for a program.

RECORDS

in REVIEW

PAUL AFFELDER • C. G. BURKE • JOHN M. CONLY RAY ERICSON • ALFRED FRANKENSTEIN • JAMES HINTON, JR. J. F. INDCOX • DAVID RANDOLPH

CLASSICAL MUSIC ON LONG PLAYING RECORDS

BACH

Ascension Oratorio (Cantata No. 11: Lobet Gott in Seinen Reichen)

Claire Fassbender-Luz (s); Ruth Michaelis (a); Werner Hohman (t); Bruno Mueller (bs); Swabian Choral Singers, Stuttgart; Stuttgart Bach Orchestra; Hans Grischkat, Cond. LYRICHORD LL34. 12-in. 17, 16, min. \$5.95.

Although in the Bach Gesellschaft, this work is listed among the Cantatas, Bach himself called it an Oratorio. As in the case of the Passions, a narrator (tenor) tells the biblical story, interrupted by the congregation.

The opening chorus, with the festive sound of its three trumpets and timpani, recalls the joyous quality of the corresponding portion of the Christmas Oratorio. The alto aria is actually the original of the Agnus Dei of the B Minor Mass.

The entire performance is done with a loving hand, and all the participants are fully equal to the task they have undertaken. There is no striving for effects for their own sake, since the performers have obviously chosen to let Bach speak through them. This has resulted in some particularly touching singing, especially on the part of the tenor soloist, who delivers his recitatives in an intimate, unforced manner. The recording is good. D. R.

BACH Brandenburg Concertos: No. 1 in F Major No. 6 in B Flat Major

London Baroque Ensemble; Karl Haas, Cond.

WESTMINSTER WL 5172. 12-in. No. 1: 22, min. No. 6: 20, min. \$5.95.

Brandenburg Concertos: No. 3 in G Major No. 5 in D Major

London Baroque Ensemble; Karl Haas, cond.

WESTMINSTER WL 5174. 12-in. No. 3: 15 min. No. 5: 24, min. \$5.95.

Mechanically considered, these two discs rank with Westminster's finest. The sounds emerge with a warmth and naturalness that leave nothing to be desired. There is a nice presence of all the instruments, a fine balance among them and an excellent fidelity of tone.

The performances are devoted, obviously well-prepared, and in the finest style. As much attention has been paid to the inner parts as to the more apparent outer melodies, with the result that one hears a beautiful integration of the parts. The performances of the First and Fifth Concerti are as fine as any I have heard. Were I some omniscient being, in whose mind there resided the absolute knowledge of Bach's intentions in matters of tempo, I would be in a position to state unequivocally that these are or are not the definitive readings of the Third and Sixth Concerti. Lacking those attributes, however, and recognizing the fact that each listener may have his own taste in matters of tempo, I can state only that those who like the Third and Sixth Concerti taken at a slow, leisurely pace need look no further. For those who like the more conventional, faster tempo the quest is not yet over. Watch for a defective groove towards the very end of the Third

Concerto. D. R.

BACH

Cantata No. 63: Christen, ätzet diesen Tagı

Margit Opawsky (s); Hilde Rossl-Majdan (a); Waldemar Kmentt (t); Harald Hermann (b). Vienna State Opera Orchestra and Vienna Chamber Choir; Michael Gielen, cond. BACH GUILD BG 518. 12-in. 16, 13, min. \$5.95.

> Cantata No. 122: Das Neugeborne Kindelein Cantata No. 133: Ich Freue Mich in Dir

Same performers as above.

BACH GUILD BG 523. 12-in. No. 122; 14, 50 min. No. 133; 22, 58 min. \$5.95.

Continuing its series of "Bach Guild" issues of the cantatas, Vanguard has again covered itself with glory with rhese three works. Since rhey are all performed by the identical forces, it is permissible to comment upon them as a unit. Moreover, it is a pleasure to be able to report that from every standpoint — performance, spirit, balance, acoustics, recording — they leave nothing to be desired.

It remains to be said that *Das Neugeborne Kindelein* contains a ravishing trio for soprano, contralto and tenor, and that *Ich Freue Mich in Dir* is one of the most immediately accessible of the Bach cantatas, with a melodiousness at times akin to folk music. *Christen, ätzet diesen Tag!* is the most ambitious of the three works, in both musical texture and size. D. R.

Organ Works

BACH

Mendelssohn: Organ Sonata No. 6 in D Minor, Op. 65

Albert Schweitzer, organ.

COLUMBIA SL 175. Three 12-in. \$16.58. Each record also available separately: Vol. 1, ML 4600; Vol. 2, ML 4601; Vol. 3, ML 4602. Each \$5.45.

Vol. 1: Toccata, Adagio and Fugue in C Major; Fugue in A

Minor; Fantasia and Fugue in G Minor (The Great). (19, 9, 14 min.)

Vol. 2: Chorale Preludes — O Mensch, bewein' dein Sünde gross (First and Second versions); Wenn wir in höchsten Nöten sein; Ich ruf' zu Dir, Herr Jesu Christ; Gelobet seist Du, Jesu Christ; Herzlich tut mich verlangen; Nun komm', der Heiden Heiland. (31 min.)

Vol. 3: Prelude in C Major; Prelude in D Major; Canzona in D Minor; Mendelssohn sonata. (5, 6, 8, 18 min.)

These records have historical value because people will always want to know how Albert Schweitzer played, in the light of his extraordinary careet as doctor, theologian, missionary, Bach specialist, and organist. As performances apparently designed to illuminate Bach's great music they are ineffectual and saddening.

There are two factors to admire. Dr. Schweitzer was 78 on Jan. 14; since these records were presumably made within the last year or two, it is a wonder that he plays as well as he does. And a tremendous sense of devotion to the music is obvious in the loving care with which he lingers over it and draws our the final cadences as if loathe to leave them.

However, the technical flaws are disturbingly serious, and the devotion is turned inward to the point where there is no longer any communication with the listener. Dr. Schweitzer plays with a thick legato that leaves the contrapuntal lines undefined, makes



Stokowski: Bizet received fine reproduction but a few cruel cuts.

many technical slips, adopts tempos that verge from slow to funereal, and uses a murky registration that is monotonously unvaried.

The instrument used by Dr. Schweitzer is one recently designed by him for the parish church at Gunzbach, Alsace. As played by him, the organ has a good over-all sound, although there is none of the variety of timbre and color in other neo-baroque instruments. The recording captures the organ tone with perfect fidelity, providing a solid, clearly-defined bass and supplying enough echo to add a lifelike quality.

For those who want a sampling of Dr. Schweitzer's style Vol. 2 is probably the most attractive disc. The chorale preludes, so beautiful in themselves, hold fewer technical hazards and suffer least from the overly contemplative approach. Vol. 3 finds the organist at his most spirited, on the other hand, and he provides a respectable, if slow, performance of Mendelssohn's lovely sonata, which he calls the finest of his organ works. R. E.

BARTOK AND KODALY Folk Songs of Hungary

Leslie Chabay, (t); Tibor Kozma, piano. BARTOK BRS 914. 12-in. 33 min. \$5.95.

Twenty-one of the innumerable Hungarian folk songs collected by Bartok and Kodaly, magnificently arranged by them, and beautifully performed by Chabay and Kozma. The songs, for all their Hungarian authenticity, continually remind one of the vocal works of Moussourgsky; the great Russian undoubtedly opened the eyes of the two Hungarian composers in matters of declamation and the harmonic treatment of folk materials. Full text in both Hungarian and English. Very high-grade reproduction; fine surfaces. A.F. BIZET

L'Arlésienne Suites Nos. 1 and 2 Symphony in C Major

Leopold Stokowski and his Symphony Orchestra, RCA VICTOR LM 1706, 12-in. \$5,72.

> Jeux d'Enfants — Petite Suite, Op. 22 Farandole from L'Arlésienne Suite No. 2 Danse Bobemienne from La Jolie Fille de Perth

†Chabrier: Suite Pastorale

Royal Opera House Orchestra, Covent Garden; Warwick Braithwaite, cond.

MGM E 3000. 12-in. \$4.85.

Stokowski does an extremely sensitive job in both the L'Arlésienne Suites and the delightful Symphony in C, and the reproduction throughout is admirable. It is too bad, therefore, that the Symphony is lacking in vitality and "go", and it is positively inexcusable in this LP age that there are passages cut out and repeats omitted in the two suites. I still prefer Rodzinski's recording of the Symphony, while Kostelanetz's version of the two suites, though not exceptional, will pass muster.

Bizet's charming suite, Jeux d'Enfants (Children's Games), comes off in a clean, lively and well recorded performance by Braithwaite. Unfortunately, he does not retain his pep in the light, tuneful Suite Pastorale, where most of the tempi are too slow. The Farandole is so badly cut it might as well have been left out altogether. The Gypsy Dance, however, is again done in fine fasion. P. A.

BORODIN Prince Igor

E. Smolenskaya (s), Korneyeva (s), A. Ivanova (s), Borisenko (c), S. Lemeshev (t), A. Serov (t), F. Godovkin (t), Andrei Ivanov (bne.), A. Pirogov (bs-bne.), M. Reizen (bs), I. Skobotsov (bs). GABT Chorus and Orchestra; A. Malik-Pashayev, cond. PERIOD SPL 552. Three 12-in. \$17.85.

Vladimir Stassov was a troublemaker. A critic and later government Director of Fine Arts, he was always suggesting things to people. He suggested that Alexander Borodin write an opera based on the medieval *Epic of the Army of Igor*. Borodin, like other members of the *Kutcha* (Moussorgsky, Balakirev, Cui, and Rimsky-Korsakov were the other four) was extremely suggestible. He began fashioning his own text and music in 1869. In 1887 he died without having finished. Admirers of the *Kutcha* deny it hotly, but it has been suggested that eighteen years is a long time to work on a four-act opera and that perhaps Borodin really hadn't much talent in that line.

At any rate, Borodin's fellow composers saw to it that Stassov's suggestion had not been made in vain. Rimsky-Korsakoff collected the scraps of manuscript, and he and Glazounov set out to orchestrate what had been composed and compose what had not. The result is presented here, as performed in the Soviet Union.

The story is episodic and undramatic. It concerns the efforts of Igor to defeat the invading forces of Kontchak, Khan of the Polovtsi. Igor gets himself captured, and his wicked brother-inlaw, Galitsky, unsurps his throne and behaves badly on it. Igor finally decides to escape, a whole act after he has had the chance (since Kontchak is really a pretty nice fellow). He goes back home and is acclaimed by the populace. End of opera. There is a subplot, if you can call it that, involving Igor's son, Vladimir, who falls in love with Kontchak's daughter and stays on with the Polovtsi. All in all, nothing much happens to anybody.

With a plot like that, you can't expect very much in the way of dramatically inspired music. There isn't any. However, there is much that is beautiful and impressive and even exciting in the choral and orchestral writing and in some of the set pieces, especially in the second act. (The third is omitted here.) Characterization is minimal.

The best things about *Prince Igor* are its bass and bass-baritone roles (even baritones sound like basses in Russia), and Mr. Ivanov -1 cannot bring myself to write "Comrade" — as Prince Igor, Mr. Pirogov as Galitzki, and Mr. Reizen as Kontchak are all marvellously equipped for them. Galitzki's aria, translatable as *I hate a dreary life*; Igor's scene as he wanders out on the steppes at night; and almost all of Kontchak's speeches are pretty wonderful writing, and here they are sung to the hilt. Miss Smolenskaya and Mr. Lemenshev deal very competently with the Kontchaovna-Vladimir love duet, but the low voices are the real show in this opera. Of course, there are the famous Polovtsian dances, but they are otherwise available in several perfectly good performances.

Mr. Malik-Pashayev conducts with a firm, no-nonsense beat that keeps things moving right along; the chorus sings very well, but the orchestral ensemble is not as polished as it might be. The reproduction is way below the most aristocratic Western standards, but it is by no means insupportable, and the music comes through with prevailingly good balance. Besides, if you want a recording of *Prince Igor*, where else are you going to get it? J. H., Jr.

BRAHMS Liebeslieder Waltzes, Op. 52 Eight German Folk Songs

Roger Wagner Chorale; Roger Wagner, cond., Elaine Heckman and Byrl Lee Neff, duo pianists, in the *Waltzes*. CAPITOL P 8176. 12-in. \$4.98.

The long-overdue first long-playing recording of the charming Liebeslieder Waltzes presents a small and ideal-sized chorus instead of the vocal quartet for which this music was originally written. The increase in the number of singers seems to add to the effect. However, the overall performance is too discreet and lacks both spine and spirit. And despite the competence of the singing and the well integrated piano duet, the English translations of these eighteen brief love songs in three-quarter time do not come through clearly. The eight folk-song settings on the other side are sung without accompaniment and with considerably more spirit, though Harold Heiberg's English words are no more understandable than those in the Waltzes. Since the music is the most important factor, however, this disk, which has been adequately recorded, is quite en jovable. P A

BRAHMS

Symphony No. 1 in C Minor, Op. 68

NBC Symphony Orchestra; Arturo Toscanini, cond. RCA VICTOR LM 1702. 12-in. \$5.72.

Chicago Symphony Orchestra; Rafael Kubelik, cond. MERCURY MG 50007. 12-in. \$5.95.

Two excellent new recordings of the Brahms First are at hand. Toscanini's is full of youthful vitality and is marked by a constant forward motion, yet is never rushed. Kubelik's interpretation, on the other hand, is considerably broader and more relaxed. Since both have been recorded in excellent fashion — Kubelik's represents the best-balanced Mercury Olympian I've heard to date the choice will have to depend on individual taste. I personally prefer the Toscanini disk, which I feel has more longer-lasting elements of freshness and vigor. P. A.

BUSONI Sonata No. 2 for Violin and Piano, Op. 36a Indian Diary (Book 1)

Richard Burgin, violin; Edward Weiss, piano. CIRCLE L 51-104. 12-in. 25, 10 min. \$5.95.

Busoni considered his Second Violin Sonata as his first really satisfactory work. Taken by itself it is still excellent, and its first appeatance on records, in Circle's Composers Workshop series, is indeed welcome. A long, one-movement work, its several sections are unified by a basic melody, Busoni's favorite Bach chorale, *Wie* wohl ist mir, o Freund der Seelen. Written in 1898, the harmonies are predominantly Brahmsian, but they are never dull, and the contrapuntal invention is almost always lively and imaginative. The performance, technically brilliant and musically sturdy, features (in a rare solo appearance), Richard Burgin, concertmaster of the Boston Symphony, and Edward Weiss, a pupil of Busoni. The performance is more solid than delicate, but on the whole admirably large-scaled and well proportioned. In the recording the two instruments, perfectly balanced, have unusual richness and fullness of tone.

The Indian Diary, chosen to fill out the record, was written in the United States in 1915. A four-movement suited based on American Indian folk themes, it is largely a curiosity, mixing dryly conventional and dissonant harmonies with Lisztian decorative devices. Its main interest is largely as another, previously unrecorded Busoni work. Mr. Weiss plays it with force and formal clarity. R. E.

CHABRIER: Suite Pastorale - See Bizet.

CHAUSSON: Concerto - See Sibelius.

CHOPIN Four Ballades

Ginette Doyen, piano.

WESTMINSTER WL 5169. 12-in. 36 min. \$5.95.

In common with other young European pianists in the Westminster stable, Miss Doyen plays with a kind of musical sanity that is devoted to a clear exposition of the music at hand, eschewing improper or tasteless emotional display. The amount of poetry, bravura, and intellectual subtlety she displays here is agreeable rather than distinctive, and Robert Casadesus's distinguished recording of the ballades is still the best LP disk devoted solely to them. A memory slip in the G minor Ballade, in Miss Doyen's version, results in the loss of a couple of measures, and it is surprising the recording was approved. Technically the disk is on a par with the rest of Westminster's remarkable piano recordings. R. E.



Chopin variety: storms from Rubinstein; precision from Pennario.

CHOPIN

Sonata No. 3 in B Minor, Op. 58 Ten Mazurkas

William Kapell, piano. RCA VICTOR LM 1715. 12-in. 24, 21 min. \$5.72.

The Mazurkas are No. 14, in G Minor, Op. 24, No. 1; No. 24, in C Major, Op. 33, No. 3; No. 35, in C Minor, Op. 56, No. 3; in B flat Major (posthumous); No. 45, in A Minor, Op. 67, No. 4; No. 9, in C Major, Op. 7, No. 5; No. 49, in F Minor, Op. 68, No. 4; No. 48, in F Major, Op. 68, No. 3; No. 25, in B Minor, Op. 33, No. 4; No. 44 in C Major, Op. 67, No. 3.

Although it is ten years since he made his remarkable, if splashy, debut, William Kapell has made his biggest strides toward maturity only in the last season or two. This recording is a good example of how far he has come recently. His technique is as superb as ever, but less obtrusively so. He plays the scherzo and finale of the sonata with seeming abandon, all the while maintaining the utmost transparency of texture and beauty of tone. His use of rubato in the first movement is masterly, and he sustains the rather fragmentary first movement with adroitly managed transitions. The full measure of spiritual serenity is perhaps not achieved in the slow movement, but there is an eloquent share of it.

The admirable choice of mazurkas ranges from one written when Chopin was fifteen to his final composition. Mr. Kapell has captured the spirit of these wonderful works, handling their abrupt shifts in mood and subtle rhythmic hesitations with an ease and exactness that is almost comparable to Artur Rubinstein's in his magnificent 78-rpm album. The first mazurka here suffers from bad coordination between the right and left hands, but the rest of them are flawlessly played. The sound of the piano is faithfully recorded. R. E.

CHOPIN Fourteen Waltzes

Leonard Pennario, piano. CAPITOL P 8172. 12-in. 44 min. \$4.98.

This fourth recording of the Chopin waltzes is a good one, for Mr. Pennario plays the works, to their advantage, with a maximum of virtuosity and a minimum of fuss. A few passages are rigid, a few sententious; and the piano sounds almost oppressively brilliant in a crystal-clear recording. The pianist avoids the excessive mannerisms and pretentiousness on the Edward Kilenyi and Alexander Brailowsky disks. However, neither does he capture the winning attlessness of Dinu Lipatti's performances on the Columbia disk, which is still the best of the four by far. R. E.

CHOPIN

Sonata in B flat Minor, Op. 35 †Debussy: La Cathédrale engloutie; Poissons d'or; La Fille aux cheveux de lin; Masques; La Terrasse des audiences au clair de lune; Ondine

Artur Rubinstein, paino.

RCA VICTOR LM 9008. 12-in. 20, 24 min. \$5.72.

This recording is not up to Mr. Rubinstein's best, but the Polish pianist under par is still better than most. The stormy performance of the sonata has a hint of impatience in its speed, and Mr. Rubinstein often lets his fingers fall where they may. But the Funeral Match is movingly projected without being sententious, and the finale flies along excitingly. Mr. Rubinstein plays the Debussy pieces in a musicianly fashion, with a lovely tone and wealth of color. Some of the stylistic devices appropriate to Chopin suspensions and pauses, for example - creep in and seem out of place in the Frenchman's meticulously planned rhythmic intricacies. If the playing lacks the final elegance and precision of Walter Gieseking's notable performances, some of it is undeniably beautiful, particularly in La Cathédrale engloutie, La Fille au cheveux de lin, and Ondine. The inclusion of the seldom played Masques - even if it is a dull piece - adds interest to the selection. The piano sound is somewhat dull; otherwise the recording is good. R. E.

DEBUSSY

La Cathédrale engloutie; Poissons d'or; La Fille aux cheveux de lin; Masques; La Terrasse des audiences au clair de lune; Ondine — See Chopin

DELIBES

Lakmé

Mado Robin (s), Claudine Collart (s), Simone Lemaitre (s), Agnes Disney (ms), Jane Perriat (ms), Libero de Luca (t), Jacques Jansen (t), Pierre Germain (t), Edmond Chastenet (bne.), Camille Roquetty (bne.), Jean Borthayre (bs). Chorus and Orchestra of L'Opéra-Comique, Paris; Georges Sebastien, cond. LONDON LLA 12. Three 12-in. \$17.85.

The nineteenth-century vogue of oriental décor found its reflection — or parallel — in a hankering after the East on the part of French composers. Leo Delibes was no exception, but he accomplished what most of his compatriots did not in composing an opera that has lasted, at least at the Opéra-Comique and certain other opera houses where suitably qualified coloraturas turn up every decade or so. Lily Pons used to sing it at the Metropolitan; but, since a revival is not in the offing, Lakmé-lovers might do well to buy this set. It isn't perfect, but the sound is excellent and the performance a lot better than we are likely to hear in the near future on this side of the Atlantic.

For those who don't know what Lakmé is about, a brief sketch should suffice. Lakmé (Mado Robin) is an (East)Indian Brahmin girl who lives with her father, Nilakantha (Jean Borthayre), in a hut in a forest. She prays all the time but feels vaguely that something is wrong. He prays all the time and hates the infidel English. One day, while Nilakantha is visiting a pagoda (sic) and Lakmé is out in the woods, a happy group of English comes chattering along Ellen (Claudine Collart); Rose (Simone Lemaitre); Mistress Bentson (Jane Perriat), their governess; Gerald (Libero de Luca), a British officer; and Frederic (Jacques Jansen), another. Gerald stays behind to sketch some jewelry that Lakmé has left in the yard; Lakmé comes back; they fall in love. Nilakantha comes back; Gerald tuns away. Nilakantha swears to kill the infidel who has desecrated his yard. He takes Lakmé to the market-place in town and has her sing the famous Bell Song to attract Gerald. It does; Nilakantha stabs him and runs away. Lakmé takes Gerald to the hut and nurses him; Frederic comes to call him to duty. Lakmé eats a poisonous flower and dies. End of opera. The story is by Pierre Loti.

All of this is accomplished with a great deal of very pretty music for everybody and a great many high notes for Lakmé. In spite of the fact that this is opéra-comique, the spoken lines

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are here delivered as recitative, presumably because the recording powers think that American consumers will like them better that way. I, for one, don't.

Miss Robin sings her florid music with secure technique all the way up to a brilliant G above, and with a kind of virginal innocence that is winning. She might seem even better if she had more color in her lower and middle rones to give expressiveness to non-coloratura moments, but there is no profit in asking the impossible. Mr. De Luca uses his basically fine voice a little roughly, and his sense of line verges on the angular, but aside from a few pressed top notes the sound is good and the general effect quite acceptable. Mr. Jansen, who was called a tenor when he sang Pelléas here, is here cast in another of those in-between roles peculiar to French opera and sung interchangeably by tenors, baritones, and what are known as baritones-Martin - the last classification being named after the creator of the name role in Hérold's Zamba, which has a range of from B below the staff to A above (a tenor's downward usable range is generally agreed to stop at middle C and a baritone's usable upward range to stop at G or A flat. Whatever his technical classification, Mr. Jansen sings with fluent, graceful style. Mr. Borthayre, not the most profundo basso in captivity, is sound and positive but a little on the stolid side. Agnes Disney is a very good duettist as Mallika, Lakmé's slave, and Miss Collart is charming as Ellen. Georges Sebastien gives a bright, clean reading of the score, if not one that seems inspired in its musicality. The recording, as recording, is fine on the whole, although sometimes the voices seem a little too close-to in relationship to the orchestra. I. H., Ir.

DELIUS

On Hearing the First Cuckoo in Spring Summer Night on the River Intermezzo and Serenade from "Hassan" Caprice and Elegy for Violoncello and Orchestra Prelude to "Irmelin"

Felix Slatkin conducting The Concert Arts Orchestra. CAPITOL P 8182. 12-in. 30 min. \$4.98.

For Delius fans, the word is still "Patience". Rumor has it that new Beecham recordings, titles not yet known, are due from Columbia any day now. Meanwhile, Capitol can be applauded for an excellent recording in which instrumental sound is clean, live, faithful and admirably balanced — a fine example of FDS. The performances have a tendency to be too forthright and robust, the colors and contrasts applied with heavy brush strokes. What emerges is hardly the delicate, fanciful misty Corot-like landscape thar Delius paints musically, but the bolder and stronger colored work of a musical Van Gogh. J. F. 1.

DONIZETTI L'Elisir d'Amore

Alda Noni (s), Bruna Rizzoli (s), Cesare Valletti (t), Afro Poli (bne.), Sesto Bruscantini (bs). Orchestra and Chorus of Radio Italiana; Gianandrea Gavazzeni, cond.

CETRA-SORIA XTV 17270-17275. Three 12-in. \$17.85.

Like all of Donizetti's works, L'Elisir d'Amore (1832), his first comic opera, is supposed to have been composed in a matter of days; it is certain that he devoted less than a month to it. However that may be, the result was — and is — one of the most lastingly funny and charming of comic operas, and certainly holds some of the most lilting musical delights of that genre.

The story, by way of exception, is quite simple. The scene is a little Italian village. Adina is the rich girl in town; Nemorino is a property-less young peasant. He loves Adina; she thinks he is cute, too, but takes him for granted. Belcore, a sergeant stationed nearby, proposes to Adina. Nemorino is beside himself with jealousy. Dulcamara, a quack medicine-man, arrives in town. Nemorino consults him, and is sold a bottle of love-elixir, guaranteed to act in twenty-four hours. Confident now, Nemorino, a little tight on the elixir, ignores Adina, who is piqued by his new attitude. To teach him a lesson, she accepts Belcore. To get money for another bottle of elixir, Nemorino sells himself into the army. Then the gimmick: unkown to him, Nemorino's rich uncle dies. The town girls find out and swarm all over him, and he attributes his success to the elixir. Adina discovers that she is jealous of Nemorino, buys back his army papers, and jilts Belcore. The town rushes to buy Delcamara's elixir. Belcore says, "There are other women," and everybody is happy. Compared to the usual complexities of comic opera this is clarity itself.

In setting this libretto, Donizetti wrote some of his most graceful music, and along the way realized a masterpiece of simpleminded situation comedy. Everyone knows Una furtiva lagrima: it needs no explication. But the whole opera is fare for anyone who has ever heard a quack medical spiel - whether on radio or television, off Broadway, or in a dusty courthouse square; anyone who has a sense of melody and rhythm; anyone who has ever known a girl who played hard-to-get and then found out she cared; anyone whose sense of humor is fresh, or at least not too jaded.

The spirit of this recorded performance is as right as could be. Aldo Noni, the Adina, has a bright, somewhat brittle-sounding voice, but she uses it with real style. Cesare Valletti, the Nemorino, has a light, flexible voice without much suggestion of velvet, but he makes up this lack by singing with intelligence and superior musicality.

Sesto Bruscantini, the Dulcamara, does a masterful job of buffo characterization in a voice of no special beauty. Afro Poli, the Belcore, is wonderfully self-satisfied as the professionally romantic military man, and Gianandrea Gavazzeni obtains a supple, cleancut orchestral and choral performance. Someone could search diligently and round up the ideal existing cast for L'Elisir d'Amore, leaving this one second best. Since nobody is likely to make the move, why wait? I. H., Jr.

GERSHWIN, GEORGE An American in Paris-See Prokofieff

GESUALDO Six Madrigals †Monteverdi: Seven Madrigals

Randolph Singers; David Randolph, cond. WESTMINSTER WL 5171. 12-in. 19, 18 min. \$5.95.

By Gesualdo: Io pur respiro; Felice Primavera – Danzan le ninfe; Moro lasso; Meraviglia d'amore - Et ardo e vivo; Io tacero; Mercè! grido piangendo. By Monteverdi: lo mi son giovinetta; Non piu guerra pietate; O rossignuol; Si, ch'io vorrei morire; Sovra tenere herbette; A un giro sol; Ohimè!

As Mr. Randolph points out in his accompanying notes, Gesualdo's madrigals have had meager representation on records and the more audacious of Monteverdi's madrigals have been similarly ignored. He has remedied matters to some extent with this fascinating and extremely welcome disk.

These madrigals, written in the late sixteenth and early seventeenth centuries, seem as contemporary in spirit as Strauss's Elektra or Berg's Lulu and just as much music for our times - the emotional expression is that bold, extravagant, and vivid. Gesualdo was an experimenter and Monteverdi an innovator, and in their settings of the passionate lyrics of their contemporaries, they composed music that is strikingly dissonant and harmonically powerful even today. What Mr. Randolph calls "tortured chromaticism," strange harmonic tensions and ambiguities, clashing dissonances, and imaginative coloristic devices are used to mirror the highly-charged sentiments in the poetry, and the results are infinitely poignant and affecting.

Mr. Randolph and his group have tried to re-create this music as faithfully as possible, using one voice for each of the solo lines, singing the original Italian, and providing acoustics of a large 'of the sort in which this music was originally performed. room

The recording is first rate, and there is an almost complete absence of surface noise. On high-fidelity equipment the treble should be attenuated to escape the excessive breathiness of the R. E. singers.

HANSON, HOWARD Songs from "Drum Taps" - See Randall Thompson

Symphony No. 88 - See Schubert HAYDN

LISZT

Piano Concerto No. 1 in E Flat Major Piano Concerto No. 2 in A Major

Edith Farnadi, piano. Vienna State Opera Orchestra; Hermann Scherchen, cond.

WESTMINSTER WL 5168. 12-in. 16, 18 min. \$5.95.

Miss Farnadi displays an adequate technique and a good deal of tasteful temperament: the lyrical moments are highly poetic;

there are occasionally unorthodox dynamics, and the cadenzas are interestingly individual in treatment. For those wanting this particular coupling of concertos - the only such available - her performances can be recommended. The recording of the piano is superb, its tone positively glitters. In fact, the whole sound of the



The Randolph Singers: Guesaldo sounded as modern as Berg's Lulu.

disk, per se, is spectacular. However, the balance between the solo instrument and orchestra is surprisingly poor; the former is favored even when the latter is more important. The fault is more noticeable in the A Major than in the E flat Major Concerto. Otherwise the orchestral playing is good enough. RE

LISZT

Piano Concerto No. 2 in A Major tWeber: Concertstück in F Minor, Op. 79

Robert Casadesus, piano. Cleveland Orchestra; George Szell, cond

COLUMBIA ML 4588. 12-in. 18, 15 min. \$5.45.

Mr. Casadesus' performance of the Liszt concerto misses some of the appropriate sentiment supplied by Miss Farnadi, but it could be argued that his relatively cool style makes this feverish work more acceptable. On all other musical counts his is undeniably the better version. The orchestra and piano are heard equally clearly here, pointing up the perfect rapport between the pianist and Mr. Szell. The work as a whole is better organized in terms of tempos, so that the excitement at the end is sharper, and the orchestra sounds excellent. The chiseled perfection of Mr. Casadesus' rhythms and the exquisitely matched tones in the cadenzas will never cease to seem remarkable.

The pianist's chaste style, with its even application of color, is probably better suited to the early romanticism of Weber's Concertstück, which has had something of a revival in concert halls recently. Its ingenousness is often delightful and refreshing; and Mr. Casadesus, Mr. Szell, and the orchestra perform it with a brilliance and gusto that are quite captivating. The recording is first rate. R.E.

MAHLER

Das Lied von der Erde Three Ruckert Songs

Vienna Philharmonic Orchestra; Bruno Walter, cond. Kathleen Ferrier, contralto, and Julius Patzak, tenor, in Das Lied. Kathleen Ferrier, contralto, in the Songs. LONDON 11 625-6. Two 12-in. \$11.90.

Symphony No. 5 in C sharp Minor **Eight Songs**

Philharmonic-Symphony Orchestra of New York; Bruno Walter, cond. in the Symphony. Desi Halban, soprano; Bruno Walter, piano, in the Songs.

COLUMBIA SL 171. Two 12-in. \$10.90.

Symphony No. 5 in C sharp Minor Symphony No. 10 in F sharp Major

Vienna State Opera Orchestra; Hermann Scherchen, cond. WESTMINSTER WAL 207. Two 12-in. \$11.90.

With the music of Mahler there is usually no halfway mark; either

you like it or you don't. If I were forced to take a stand, I would be among the anti-Mahlerites, a fact which I think it is only fair to state before writing this review. To me, most of his music is banal, overblown and much too long.

Fortunately, though, there are exceptions to this rule. One of these is the magnificent and surprisingly well-integrated symphonic song cycle, *Das Lied von der Erde (The Song of the Earth)*, for contralto, tenor and orchestra. At long last we have the definitive reading of this score by the composer's friend and disciple, Bruno Walter, who gave it its first performance in 1911. He is aided by two superb soloists. Rich, deep-voiced Kathleen Ferrier, whose unforgettable collaboration with Walter in Mahler's *Kindertotenlieder* made disk history, gives an equally notable account of herself here and in the rather lugubrious *Ruckert Songs*. Julius Patzak, a Viennese veteran tenor, still has freshness in his voice and sensitivity in his performance. Altogether, this is tender, introspective Mahler



A pair of mighty Mahlerites: Bruno Walter and Kathleen Ferrier.

- which is Mahler at his best - tenderly interpreted with loving care. Aside from some distortion on Side 3 of my sample set, the recording is entirely satisfactory.

The Fifth Symphony, justly famous for its lovely Adagietto, has other attractive features, though it often suffers from long- and loud-windedness. Both readings here are very good, and both have been well recorded. I prefer Walter's because of the fuller orchestral sound — particularly in the strings — and for the greater freedom of movement in the Scherzo. Scherchen, on the other hand, provides more welcome dramatic contrast in the two opening movements. The listener must also choose between the miniature Mahler song recital by Desi Halban, finely accompanied by Walter, and the often intensely beautiful Adagio from the unfinished Tenth Symphony, played with great dignity by Scherchen. P. A.

MENDELSSOHN Organ Sonata No. 6 in D Minor, Op. 65 — See Bach

MENOTTI Amahl and the Night Visitors

Chet Allen (boy soprano), Rosemary Kuhlmann (ms), Andrew McKinley (t), David Aiken (bne.), Francis Monachino (bs), Leon Lishner (bs). Orchestra and chorus; Thomas Schippers, cond.

RCA VICTOR LM 1701. 12-in. \$5.72.

Gian-Carlo Menotti's Amabl and the Night Visitors, the first opera commissioned especially for television production, had its premiere over the facilities of NBC-TV on Christmas Eve, 1951. Since then it has been repeated, and seems well on its way to becoming an annual Yuletide feature. It also shows signs of catching on as a staple of various opera groups around the country — at least of opera groups that have a steady supply of boy sopranos, a vocal classification notorious for sudden retirements because of old age.

The number of people who have seen *Amabl* must be immense; certainly its story of the little lame boy and the three Kings (or Wise Men) needs no retelling. The music is charmingly simple and sentimental, and this performance, supervised by the composer, may be taken as definitive. Perhaps it is better seen than merely listened to, as Mr. Menotti suggests in his program note; but of what opera is that not true? The only general objection I can think of is that if children listen to the recording too much, and imagine as inventively as children can, they may find the TV treat at Christmas less appetizing. If you don't *bave* TV, why worry about that? I myself have a block about this opera that I probably never will get over. When I was a little boy, the old Negro man who worked in our yard used to complain about "night visitors." He meant bed-bugs. J. H., Jr.

Classical Symphony

MONTEVERDI Seven Madrigals — See Gesualdo

PROKOFIEFF

Gershwin: An American in Paris

NBC Symphony Orchestra; Arturo Toscanini, cond. RCA VICTOR LM 9020. 12-in. 17, 15 min. \$5.72.

The maestro seldom deals with modern music unless with sure-fire sellers like these. He takes the *Classical Symphony* rather more romantically than most; in his interpretation it seems to have been inspired by Schubert rather than Mozart. He gives the Gershwin its full, slight due. The road is now open for Kostelanetz to retaliate with a recording of the Ninth Symphony. A. F.

PUCCINI Tosca

Renata Tebaldi (s), Gianfranco Volante (alto), Giuseppe Campora (t), Piero di Palma (t), Enzo Mascherini (bne.), Dario Caselli (bs), Fernando Corena (bs), Antonio Sacchetti (bs). Chorus and Orchestra of L'Accademia di Santa Cecilia, Rome; Alberto Erede, cond.

LONDON LL 660-661. Two 12-in. \$11.90.

There are five LP versions of *Tosca* in all. I tried but was unable to listen to all of them under anything like ideal conditions; however, I listened to enough of each to know that — as performances — they vary from excellent to why bother. Only one, the RCA Victor reissue, merits comparison with the new London set, and its engineering is not nearly modern enough to make a hi-fi enthusiast think twice. Still, there is honor enough for both.

The older set holds two performances that have elements of real greatness. Singing actresses of the power and emotional projection of Maria Caniglia just don't happen very often, and although she is not here in unsullied voice (people who heard her 'back when'' say that her singing has always tended to be flawed), the total effect of her impersonation is crushing. Beniamino Gigli's Cavaradossi has quite different values. He is stylistically less teary than he sometimes is, but he does sound too complacent for maximum dramatic effectiveness. Be that as it may, he had every reason to sound complacent, because never, at least to my knowledge, has a singer with so undeniably great a voice and such consummate skill in using it been caught by the microphones in such fine fettle all the way through an opera performance. High fidelity or low, listening to him is a jaw-dropping experience. Armando Borgioli, the Scarpia, has a nasty way of rolling words around in his mouth before singing them, but his big, dark voice and vigorous, positive declamation put him well on the credit side. Oliviero de Fabriitis controls the big-scale, pungently dramatic performance.

The new London issue, though, has the advantage of wonderfully live and clearly defined reproduction — and of Renata Tebaldi, who in the title role gives a performance that is in the same great line as Miss Caniglia's, dramatically almost as affecting, more cleanly vocalized, and perceptibly higher in average beauty (if not in climactic weight) of tone. All things considered, more can be heard of a better Tosca in this set than in any other.

Giuseppe Campora, the Cavaradossi, does not have the plushcovered tone of Mr. Gigli; but nobody, not even Mr. Gigli, does now, and Mr. Campora uses his strong, easily produced, adequately resonant voice in manly and musically intelligent fashion.

Mr. Mascherini's Scarpia proved to be so much more to my taste than anything I have heard from him in the flesh that it at least partially short-circuited my faculties of judgement. Reconsidered, it all seems to add up to this: his voice here seems lighter in volume and color than I remember it being, while he seems a much defter and more interesting artist. Certainly the voice, as it lies in the grooves, is not what would ordinarily be considered a proper Scarpia voice, and when Mr. Mascherini tries to make it sound as if it were he gets in trouble - not much, but enough to be mentioned. However, most of the time he solves his problems by being inventive and singing words well. His characterization is not definitive, to say the least, but it stands up well enough, particuarly in its glints of cruel humor. As an aside, it seems a pity that two really good Scarpias heard in this country within the last few years have been bypassed in recording circles. George Chapliski and Robert Weede are Scarpias of very superior quality, especially deserving of preservation in a period that has seen so many second-rate, half-baked, or

downright incompetent impersonations foisted on people who look to records and radio for their opportunities to hear opera.

The minor roles are satisfactorily cast (note the boy shepherd), but only Fernando Corena as the Sacristan is above standard. His is a finer voice than most heard in this part, and he gives much more attention than most to legitimate vocal characterization, instead of to the whining and snivelling that frequently passes for buffo style. Dario Caselli finds his proper level as Angelotti; Piero di Palma is so-so as Spoletta. Alberto Erede conducts alertly but without realizing the orchestral melodrama quite as vividly as some conductors have. J. H., Jr.

SCHUBERT Schwanengesang

Petre Munteanu, tenor; Franz Holletschek, piano. WESTMINSTER WL 5165. 12-in. \$5.95.

Not long before his death, Schubert composed this group of fourteen songs which were published under the title of Swan Song. Included here are some of the composer's best and most familiar *Lieder*, including *Liebesbotschaft*, Ständchen, Aufenthalt, Der Atlas and Der Doppelgänger. Munteanu, a young Roumanian tenor, has a powerful — sometimes penetrating — voice. He understands the meaning of each song and is able to convey that meaning to his hearers — an important attribute among *Lieder* singers. He is also abetted by first-rate piano accompaniments. The recording is a bit on the brilliant side for this sort of music, with Munteanu possibly too close to the microphone. An added feature of this disk is the inclusion of complete German and English texts. P. A.

SCHUBERT

Symphony No. 9, in C †Haydn: Symphony No. 88, in G

Berlin Philharmonic Orch., Wilhelm Furtwängler, cond. DECCA DX 119. Two 12-in. 54 min. \$11.70.

Symphony No. 9, in C

Concertgebouw Orch., Amsterdam, Josef Krips, cond. LONDON LL 619. 12-in. 48 min. \$5.95.

The eighth and ninth LP's of the Symphony perhaps most admired after the best of Beethoven's. Mr. Krips' soft and amiable direction is at a disadvantage between the massive stateliness of the Furtwängler version and the bold romanticism of Dr. Walter; it has no definite character. That is true too of its engineering; satisfactory without elements to extort special commendation. The Furtwängler performance is the slowest on records, and there can be objections to the pace of the first movement and particularly of the trio, just as there are serious objections to the Toscanini rush through this work. (Here preference is for the slow first movement and a faster trio: the Walter tempos are those customary.) The Furtwängler finale, built gradually to its climax, is magnificent; and the second movement, as always, dictates its own realization. The Columbia (ML 4093) recording of Walter, now four years old, is still impressive for its brass timbre and the conductor's episodic exuberance. The Furtwängler orchestra is carefully unified, woven into a heavy curtain in which detail is synthetized, with the mass of strings, in realistic reproduction, dominant. This is certainly the best recording, although Walter's is more electrifying (and has more defects). The fourth-side Haydn Symphony No. 88 is noticed else-C. G. B. where

SCHUBERT-WEINGARTNER Symphony in E

Vienna National Opera Orch., Franz Litschauer, cond. VANGUARD 427. 12-in. 34 min. \$5.95.

It is amazing and gloomy to realize that the music in the unfinished autograph stayed latent for 88 years after it had been made available for someone to vivify it. Of course the musical propagandists of those years when civilization was esteemed in proportion to its production of smoke were concerned with Raff, Vieuxtemps, Marchetti and Cadman; but toward the end of the period Mr. Sigmund Romberg showed what could be made of Schubert, if one tried — was there no one else to note the one real Viennese among the incredible makers of insuperable music?

At last there was Felix Weingartner. Perhaps it is as well we had to wait so long; perhaps no one could have done it better. He found a symphony fully scored for a few more than a hundred measures, or into the allegro following the introduction, with the rest indicated by detailed memoranda, including expression marks and the intended use of instruments. Weingartner scored the work as he thought Schubert would have — a bit more like the Schubert of 1828 than the one of 1821. Indeed it sounds like the Schubert of the Overture in the Italian Style influenced by his own second C Major Symphony. Charming and stimulating, and played with tender style and orchestral skill in a recording that re-asserts the phonograph's importance as pioneer and perpetuator of repertory. Something of a personal triumph for Mr. Litschauer emerges here, since he had no tradition to follow or disk to imitate. Brilliant sound, clear and refreshing except in moments of full orchestra. C. G. B.

SCHUMANN

Curtis String Quartet.

WESTMINSTER WL 5166. 12-in. \$5.95.

Some of Schumann's richest inspiration is to be found in these two quartets. This is particularly true of the first, which is more immediately appealing, generally better integrated and more melodic. Both make rewarding listening, however, especially in the warm, full-bodied performances by the Curtis Quartet. My only complaint is that the opening movements of both quartets could have been given lighter and livelier treatment. As to the reproduction, it is ideally natural for chamber music. P. A.

SIBELIUS

Concerto for Violin in D Minor, Op. 47 Four Historic Scenes

Quartet in A Minor, Op. 41, No. 1

Quartet in A Major Op. 41; No. 3

Isaac Stern, violin. Royal Philharmonic Orchestra; Sir Thomas Beecham, cond. in the *Concerto*. Same orch. and cond. in the Historic Scenes.

COLUMBIA ML 4550. 12-in. \$5.45.

Concerto for Violin in D Minor, Op. 47 †Chausson: Concerto for Violin, Piano and String Quartet in D Major, Op. 21

Jascha Heifetz, violin. London Philharmonic Orchestra; Sir Thomas Beecham, cond. in the Sibelius. Jascha Heifetz, violin; Jesus Maria Sanroma, piano, and the Musical Art Quartet in the Chausson.

RCA VICTOR LCT 1113. 12-in. \$5.72.

Once in awhile, the wishes of record reviewers come true. In the last issue, I expressed the hope that Victor would reissue Heifetz's incomparable recording of the Sibelius Concerto. Not only did we get that bonanza but also a brand new reading by Stern. Both of these put Camilla Wicks' warm-toned but rather slow performance for Capitol in the shade. Stern's incisive, dramatic interpretation has been recorded so that one can hear the rub of the rosin on the strings. Heifetz's playing is more suave, and he is the only one who can master the extreme difficulties in the last movement. Besides, the reproduction in this old recording holds up remarkably well. Since both the Stern and Heifetz versions are complete on one side of a 12-inch disk, thete is much fine music to be had on the other side. It would be best to listen to both in order to choose between Stern and Heifetz and between the attractive Four Historic Scenes (Festivo, At the Drawbridge, Love Song, The Chase) and the glorious Franck-like Chausson Concerto, which is another admirable reissue. As for me, I'm hanging onto both disks. P. A.

TCHAIKOVSKY (The) Sleeping Beauty, Op. 66

Paris Conservatory Orch., Anatole Fistoulari, cond. LONDON LL 636-637. Two 12-in. 1 hr. 44 min. \$11.90.

The four long sides hold an almost integral performance of the long Ballet, considered here, in its facility of memorable melody, succession of compelling rhythms and ingenuity of flashing orchestration, to be the composer's masterpiece. Here, with not one pirouette or entrechat to divert us, we have nearly two hours of a musical *conte de fée* without an interim of torpor. The performance and sound of the orchestra are better than we could hear them at a representation below the footlights. Mr. Fistoulari gives an interpretation like that of his recent *Swan Lake*, direct and healthy, with no emphasis on subtlety, but a large sweep of dynamics. At one



Virgil Thomson: his cello gallops over American plains to a rendezvous with Beethoven.

time or another nearly every instrument or choir enjoys a solo limelight, and we too, hearing an expertise which from Gaul we have learned to anticipate only in the wood. The engineering is according to London's best standard, with no salient faults except an intermittent hum, with a nice bite to the strings, superb wood and bright brass, the teeming battery amusingly effective. The only competition limps from five suites of excerpts, the longest about half the duration of this album. C. G. B.

THOMPSON, RANDALL The Testament of Freedom [†]Howard Hanson: Songs from "Drum Taps"

Eastman-Rochester Symphony Orchestra; and Eastman School of Music Chorus; Howard Hanson, cond.

MERCURY MG 40000. 12-in. 20, 18 mins.

These are American counterparts to Prokofieff's Russian propaganda oratorio, On Guard for Peace, which is discussed elsewhere in this issue. The Testament of Freedom is a setting, for men's voices and orchestra, of various passages from the writings of Thomas Jefferson, and Songs from "Drum Taps" is based upon some of the Civil War poems of Walt Whitman. Thompson's work is noble and strong in its orchestral fabric, but its vocal fabric suffers from the fact that Jefferson's copper-plate prose does not lend itself well to musical setting, and Thompson has not managed to animate it with any real musical urgency. Hanson's difficulty is exactly the opposite: Whitman's free verse is so musical in itself that musicians approach it at their peril. Nevertheless its very musicality constantly tempts composers, only one of whom Frederick Delius in Sea Drift - has managed to do anything important with it. Hanson's drum taps behind Drum Taps are pretty obvious. A. F.

THOMSON, VIRGIL Concerto for Violincello and Orchestra Suite from The Mother of Us All

Janssen Symphony Orchestra; Werner Janssen, cond. Luigi Silva, Cello.

COLUMBIA ML 4468. 12-in. 19, 21 mins. \$5.45.

It is not often that one runs across a work, on records or in the concert hall, that strikes one immediately as being a masterpiece of its kind and keeps on sounding like a masterpiece after repeated hearings. Virgil Thomson's cello concerto is such a work. It is in a deft, pointed, light-textured style paralleling 18th century classi-cism, but it is definitely not a "neo-classical" score. It is full of the typical Thomsonian melodicity, related to American folk tunes, and its second movement is an exquisite set of variations on a heart-breaking old shape-note melody entitled "Tribulation". The first movement is called "Rider on the Plains", and it lopes along a little as does another gallant horseman of the cello, Strauss' Don Quixote, but without windmills, sheep, or humiliation. The last movement is called "Children's Games"; the game it plays is the exhilarating one of the classical finale, which has largely been forgotten since Beethoven.

The Mother of Us All is Thomson's second opera to a text by Gertrude Stein. It is a more important opera than Four Saints in Three Acts, partly because it has a better libretto; its account of

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the life and death of Susan B. Anthony has genuine philosophic value, and its American local color, being better justified, is more soundly laid on. The music of the suite recalls the operas, hymns, parades, political meetings, and prophetic visions, and it is all handled with that clarity, delicacy and precision of which Thomson is past master. AF

WEBER

Concertstück in F Minor, Op. 79-See Liszt

MISCELLANY

ANGLO-AMERICAN BALLADS

Sung by Hermes Nye. FOLKWAYS FP 37. 10-in. \$4.45.

Hermes Nye is a Texas lawyer with a fondness for folk songs and a gift for singing them in a simple, appreciative, straight-forward style, accompanying himself on the guitar. He does not employ the trance-like manner of the true folk singer nor the dramatizations of the professional, but is unaffectedly himself - a student of the subject who is well qualified to present it. His collection is of special interest because it contains a number of important English ballads not to be found in other recorded versions, among them "The Bonnie Earl of Murray," "John Peel" (which Nye confesses to having "collected" from a Girl Scout song book), and "The Bailiff's Daughter of Islington." Other ballads in the collection are "Earl Richard," "A North Country Maid," "Tomorrow Is Saint Valen-tine's Day," "King Arthur Had Three Songs," "The Greenland Fishery," and "The Red Herring." No Texas he-man stuff at all. A. F.

ANNA RUSSELL SINGS?

Advice on Song Selections for Concert Singers: Coloratura aria: "Canto dolciamente pipo" from the opera "La Cantatrice Squelante"; British — pure but dull: "I Love the Spring"; Russian folk song: "Da, nyet, Da nyet"; For loud singers with no brains: "Ah, Lover!" from "The Prince of Philadelphia''; For singers with tremendous artistry but no voice: "Schlumpf" and "Je n'ai pas la plume de ma tante"; Contemporary music for tone-deaf singers: "My Heart is Red"; For the untrained singer: "I Gave My Love a Cherty"; For the dramatic soprano: "Schreecherauf,"

Anna Russell, (Concert Comedienne), Harry Dworkin, piano, COLUMBIA ML 4594. 12-in. \$5.95.

Anna Russell, an artist of encompassing scope but dubious explicability, came on earth (one hesitates to say "was born") in England, and, after a girlhood shrouded in mysrery, entered the Royal Academy of Music. She was graduated, it is said, and attempted to begin a career as a singer; soon she became conscious, if that is the word I want, that no matter how serious her efforts she excited amusement rather than more becoming emotions in her audience. After brief but effective self-analysis, she decided to

Anna Russell: from the folksong to the Wagnerian aria in delightfully nine hilarious lessons.



make capital of her inescapable talent for parody by becoming a lampooner of composers and concert artists, whose efforts to arouse serious emotions so often leave audiences with the uneasy feeling that they would like to laugh but dare not. Her potential audience, I would judge, includes everybody who has ever felt ill-at-ease in a concert hall. J. H., Jr.

A CONCERT OF AMERICAN MUSIC IN SCHOENBRUNN

Alexander Jenner, piano; Vienna State Academy Orchestra and Chamber Chorus; William Strickland and Ferdinand Grossmann, cond.

VOX PL 7750. 12-in. \$5.95.

If this disk is typical of what is happening under our governmental plans for cultural exchange, Europe is receiving a most persuasive picture of American cultural achievement. The record contains part of a program of contemporary American music given in the former imperial theater at the palace of Schoenbrunn, near Vienna, under the aegis of the Fulbright Act. It contains a brilliant, vital and commanding Concertino for piano and orchestra by Walter Piston, and six short choral works: Aaron Copland's An Immorality; an Allelujah and the Three Odes of Horace by Randall Thompson; Samuel Barber's Let Down the Bars, O Death; and Two Hymns from the Old South arranged by Virgil Thomson. The Allelujah and the Horatian odes are especially eloquent and masterly, but the whole choral portion of the record is outstandingly fine, thanks to the music it contains and to its splendid performance. Grossmann is obviously no run-of-the-mill chorus master, and the members of his choir sing like so many angels, although they have not been A. F. well recorded.

DANCERS OF BALI

Gamelan Orchestra from the Village of Pliatan, Bali, Indonesia; Anak Agung Gde Mandera, Director.

COLUMBIA ML 4618. 12-in. 23, 22, min. \$5.45.

Those with exotic taste in music will find a veritable feast in this disk. Taking advantage of the recent New York appearance of the Dancers of Bali, Columbia has recorded the music accompanying the dances, played by a gamelan, or native orchestra of twenty-five musicians.

In spite of what to our Western ears may be an overall sameness in the music, repeated hearings serve to reveal the variety of tone colors produced by the various instruments. Some of those instruments are illustrated in the informative jacket notes by Colin McPhee.

Further than to report that the actual recording of the sounds themselves is nothing short of magnificent, it would be presumptuous of me to attempt to criticise the performances as such. (In the course of living in New York City, one hardly acquires a background sufficient to qualify one as an "authority" on Balinese music.) D. R.

OFFENBACH BIZET Four mezzo arias and Entr'acte Act 4 from Carmen

Jennie Tourel, Mezzo-Soprano, with Jean Morel conducting the Columbia Symphony Orchestra.

COLUMBIA ML 4608. 12-in. 40 min. \$5.45.

Some effervescent vocal and orchestral trifles excerpted from several Offenbach operetras, wittily orchestrated, and played with immense gusto under Morel's exuberant direction. The vocalist does not seem completely at ease in these arias, the voice sounding too heavy and the singing often effortful. Much more successful are her renditions of the *Carmen* arias, these being sung with bite and perception, and in generally glowing tones.

The recording is simply top notch — if anything, almost too brilliant, and some modification at the top is necessary in the Offenbach excerpts. There is remarkable realization of both brass and percussion.

The title is unfortunate and misleading. There is little if any of the score that Offenbach provided for his operetta La Vie Parisieme, produced at the Palais Royal in 1866. Music from that work is available in the abridged version of the operetta on Vox PL 21,000. The Capitol disk (P 8102,) which carries the same title as this Columbia record, is also a series of excerpts from Offenbach works, though in Capitol's case they are all orchestral. J. F. I.

SCHLUSNUS SINGS - VOLUME I

Schubert: Ständchen, Frhülingsglaube, Der Atlas, Im Frühling, Nachtstück, Die Forelle, Alinde, Die Taubenpost; Wolf: Denk' es, o Seele, Verborgenheit, Der Gärtner, Heimweb

Heinrich Schlusnus, baritone; Sebastian Peschko, Franz Rupp, piano.

DECCA DL 9620. 12-in. \$5.85.

SCHLUSNUS SINGS - VOLUME II

Schubert: Der Jüngling an der Quelle, Im Abendrot, An Schwager Kronos, Der Lindenbaum; Wolf: Verschwiegene Liebe, Abschied, Er ist's; R. Strauss: Heimkehr, Ich liebe dich, Ständchen; Brahms: Wie bist du, meine Königin, Botschaft.

Heinrich Schlusnus, baritone; Franz Rupp, Sebastian Peschko, Michael Raucheisen, Otto Braun, piano.

DECCA DL 9621. 12-in. \$5.85.

When Heinrich Schlusnus died last June, the world lost one of its greatest *Lieder* singers. These two memorial collections, reissues of disks made by him during the 1930's, have preserved some of his superb artistry. In all of these songs one can revel in Schlusnus' glowing tone and magnificent musicianship, his long-lined phrases and all-encompassing interpretive insight. Despite their age, these recordings hold up remarkably well. P. A.



THE DOWNWARD PATH TO WISDOM

Katherine Anne Porter, reading her own short story. CAEDMON TC 1006. 12-in. \$4.95.

This is a grim little story of a four-year-old boy being dreadfully buffeted about by the hates of his elders. But the flashes of understanding which illumine it are so penetrating that the listener is almost hypnotized, though he may not enjoy it. Miss Porter's refined Texas voice, deceptively ladylike in the first words, is that of an expert and dramatic storyteller.

ARCHIBALD MACLEISH, READING FROM HIS OWN WORKS

Active (complete); Conquistador (two excerpts); The Old Man to the Lizard; Epistle to Be Left in the Earth; Immortal Helix; Winter is Another Country; Calypso's Island; The Learned Men; What Any Lover Learns; Cat in the Wood, and other poems. CAEDMON TC 1009. 12-in. 56 min. \$4.95.

It saddened the two bright young women who produce Caedmon records not a bit, of course, when the 1953 National Book Award for Poetry went to Atchibald MacLeish for his Collected Poems, a goodly portion of which they had already recorded on this disk. MacLeish is a poet who believes what he writes; his faith has taken

Poet with a purpose: Archibald MacLeish's hero is the human race.



him out of the study and made of him a soldier and a public servant. In this recording he reads like the belligerent humanist he is. His hero is always the human heart; in *Actfive*, written since World War II, he tells why, discarding as alternate heroes Science, Faith, the Gteat Man and other idols. Best piece for ttial-listening: the two *Conquistador* excerpts: an aged ex-soldier of Cortez' band, recalling war and adventute in the days of Montezuma.

MR. PRESIDENT: FROM FDR TO EISENHOWER

The voices of Presidents and other public figures of the period, including Roosevelt; Al Smith; Wilkie; Landon; Huey Long; Harry Hopkins; Dewey; Hoover; Truman; Stevenson and Taft, with commentary by NBC commentator and editor James Fleming. RCA VICTOR LM 1753. 12-in. \$5.72.

This could have been very good, with a little more time in pteparation. As is, it manages to be superficial without being very entertaining. The voices of the notables are heard too briefly in statements mostly overfamiliar and not very significant. Only humorous note is contributed by Truman, discussing the 80th Congress.

SHAKESPEARE: SIXTEEN SONNETS

David Allen, reader, with harp music by Curtis Biever, played by Margaret Ross.

POETRY RECORDS PR 201. 10-in. \$4.75.

This should be remade. David Allen, who is also the producer, is a good enough reader. However, his faith in Shakespeare's words alone was not strong enough, hence the "Elizabethan" harp-music, which goes on *during* the reading, fighting implacably against the Bard for the listener's attention. Too bad.

JOHN M. CONLY

Records for Children

by Emma Dickson Sheehy

The popularity of the movie "Hans Christian Andersen" is reflected in a number of record releases of its more familiar themes and stories. Little Golden Records does a respectable job with *Thumbelina* and *Wonderful Copenhagen* on a six-inch disk. Anne Lloyd does the singing, accompanied by the Sandpiper Singers and directed by Mitch Miller. M-G-M has *The King's New Clothes* and *The Ugly Duckling and the Inchworm*, both records featuring the famous Broadway composer Frank Loesser. He gives us a pleasantly relaxed kind of singing, easy and comfortable to listen to. *The Emperor's New Clothes* recorded by Young People's Records several years ago, however, still remains the best version ever done of this old tale.

The Travels of Babar (two 10-in.) is Children's Record Guild's newest musical play, and it is first-rate from every standpoint — narration, music, and production. Normand Lockwood has composed music which is most appropriate for the humor and whimsy of this classic story. The envelope is decorated with attractive pictures and also carries the narration that is used in the record. Decca has done Babar, too, narrated by Frank Luther, but it is meager and unimaginative compared with the CRG records.

Pedro in Brazil — also from CRG, is the third in a series designed to familiarize children with the music and customs of Latin Americans. Some of the feeling for the Brazilian Carioca festival is conveyed through the singing of authentic folk songs, held together by a simple story. Pleasant and lively.

Both young and old will enjoy Big Golden Record's Easter number, Peter Cottontail and the Easter Parade. Irving Berlin's nice sentimental tune, Easter Parade, combines well with the hippity-hopping of Peter Cottontail. This same company has its small-sized edition of Peter Cottontail, one side designed for Easter and the other for the rest of the year! Dance and Whistle (Columbia) with Josef Marais and Miranda is currently a great favorite with six- and seven-year-olds. Marais' and Miranda's singing has an infectious quality, which not only holds the youngsters' interest but also encourages them to participate. A gay tune, Hold Your Head High, is on the reverse side. Capitol's latest include Bugs Bunny and the Grow-Small Juice, Bozo's Song, Sparky's Magic Echo, and Bongo the Circus Bear. If you like Bugs, both you and the youngsters will get a kick out of this. The best patt of Bozo's Song is the exciting and jolly circus music. Decca has a new Little Otley record, Fly-Frog-Fish and his Coonskin Cap. Uncle Lumpy as Little Otley is deservedly popular with the small fry; he is a good story-teller. His stories here concetn an Indian adventure and a fly-frog-fish orchestra.

Patriotic songs and themes are tepresented by a fresh crop of records. Mercury Childcraft offers Soldier Songs of Our Land, an excellent collection of songs from all branches of our armed setvices, and Songs of Our Patriots. The latter include America the Beautiful, Columbia, the Gem of the Ocean, and The Battle Hymn of the Republic. Borh records have good musical arrangements and are well recorded. Dick Byron sings Ballad for Americans on a Big Golden Record. Older boys and girls will enjoy this revival of a work very popular a few years ago. Columbia also has issued The Star-Spangled Banner, The Caisson Song, and several other such songs on separate six-inch disks.

For the space ship fans, Columbia has come up with two realistic (!) and highly dramatic records. *Rocky Jones and the Space Pirates* and *Space Ship to Mars.* In the latter, Paul Tripp as Mr. I. Magination, and his young friend Don take a trip to the moon. Both records are full of thrills and can be recommended for all young folk interested in "space doings" — and which ones aren't?

Enrichment Records, Inc., producing records based on the Landmark Book series, has done a better job with its second group of releases than it did with the first, but there is still room for improvement. In *The Wright Brothers* and *Building the First Transcontinental Railroad*, they use intimate personal details to heighten interest in the story, which is well enough told. The same use of detail is used in *Paul Revere and the Minute Men* and *Our Independence and the Constitution*. Certain ten-year-old consultant-critics found the latter less successful than the former. Enrichment's record makers have not yet conquered the flashback or "timeskipping" technique. Probably the "lesson study plans" which came with my set are sent our only to schools. Even so, it seems unfortunate that this recorded material is not allowed to stand on its own dramatic reproduction, to which the inclusion of "homework" assignments adds no appeal whatever. If I were on the listening end, I should stuff my ears with cotton.

IN ONE EAR by James Hinton, Jr., is absent from these pages this issue through no fault of J. H., Jr.'s, except that his humorous con-



tinuity would not stand cutting. The real culprit is the shock-headed gentleman on page 61, who crowded everyone.

THE MUSIC BETWEEN

By EDWARD L. MERRITT, Jr.

Rio Rita and A Connecticut Yankee RCA VICTOR I.K 1026. 12-in.

Earl Wrightson, Elaine Malbin, Al Goodman and his orchestra.

Rio Rita: Rio Rita; Following the Sun Around; You're Always in My Arms; The Ranger's Song.

A Connecticut Yankee: Thou Swell; On a Desert Island; I Feel at Home with You; My Heart Stood Still.

After a long series of record revivals on the Columbia label, it is gratifying to find another company reviving some of the great standards of the Broadway stage under optimum conditions.

This Al Goodman presentation is an outstanding success from every point of view but one — the complete scores would have been better. The samplings add up to something not far short of this, but anything less than the full story is a little sad to take.

Admittedly, the excerpts from these two famous shows present the very loveliest portions of the scores. Both Earl Wrightson and Elaine Malbin sing with a great deal of persuasiveness and the Goodman haton hlends the various parts into a fine whole. The above reservations being taken into account, this disk has everything to recommend it to lovers of the musical theatre. The recording is sonorous and wide ranged, the surfaces splendid.

Victor Herbert: Pan Americana, American Fantasy, Irish Rhapsody COLUMBIA AAL 21. 10-10.

The Philadelphia Orchestra Pops: Eugene Ormandy, cond.

In the world of American popular music, the name of Victor Herbert has always held a pre-eminent place. Today, almost 30 years after his death, Herbert's music continues to hold a high place in popular esteem. Primarily, he is remembered for his tuneful operetta scores, but in addi-tion to the host of familiar musicals he penned, he often engaged in more ambitious works. Of these, the opera Natoma, produced at the Metropolitan Opera, and several orchestral selections are perhaps the best known. From the latter group this Columbia LP is taken. Herein Eugene Ormandy and his great orchestra, masquerading as The Philadelphia Orchestra "Pops", bring us stirring renditions of Herbert's best known orchestral opus, Pan Americana, and two of his less well-known works. As one listens to these compositions one wonders what other Herbert attractions still await us. There are, of course, a cello concerto (written by a man who first saw the United States as an imigrant celloist) a second opera, and other works in the concerto form.

The Philadelphians are well recorded

here and the surfaces of the review copy of this disk are up to the best.



Ormandy: a lively job for a dead cellist.

Moods In Music: Music For Relaxation RCA VICTOR LPM 1001. 12-in.

The Melachrino Strings

Berceuse; Autumn Leaves; While We're Young; Stardust; Valse Bluette; Sleepy Lagoon; La Golondrina; La Serenata; Portrait of a Lady; Moonlight Serenade.

Moods in Music: Music For Reading RCA VICTOR LPM 1002. 12-in.

The Melachrino Strings

Clair de Lune; Greensleeves; Festival; Dream of Olwen; Song of my Life; Mattinata; Amoureuse; Waltz in C-Sharp Minor; Serenade; Flirtation Waltz.

The well-known exponent of "Music Between", George Melachrino, is here represented with the balance of his first domestic long-playing release. In the January-February issue we welcomed the first of these three disks, saying, "The Melachrino style is heavy on melody, and rich harmony, and foregoes all of the exaggerations and most of the tricks of some other arrangers and conductors. The net result is most satisfactory."

Nothing to be heard in these two records causes any change of mind. The generally high qualities noted before are present again, and there are two particularly attractive pieces. Of these, easily the most exciting is *The Flirtation Waltz*. Here the stunning virtuosity of the orchestra is displayed in well-nigh unbelievable fashion. Also noteworthy, is the Glenn Miller tune, *Moonlight Serenade* displayed with a portfolio of wonderful harmonies in an ultraslow reading of great chatm.

The only qualification to be directed at these generally fine records is a somewhat wiry sound to the strings when they are played forte.

Now that the first release is complete, word from headquarters informs us that there are more Melachrino offerings in the immediate future. In fact, although review copies have not yet appeared, there is already a single 10-inch disk out, and more in the *Moods in Music* series promised.

King Of The Clarinet—Buddy de Franco M-G-M E 177. 10-in.

Sweet Georgia Brown; Gone with the Wind; Cairo. (With Quartet).

Street of Dreams; Lover Come Back to Me; Sophisticated Lady; I Got It Bad and That Ain't Good; The Way You Look Tonight. (With Trio)

As the liner notes on this M-G-M disk tell us, readers of *Metronome Magazine*, in their annual poll, took the accolade of first-ranking clarinetist away from the great Benny Goodman some years ago to bestow it on the slight young man from Philadelphia, Buddy de Franco.

Most noticeable difference between de Franco and Goodman is the lack of drive in de Franco's playing. To anyone used to the Goodman style, de Franco at first comes as a distinct letdown. This reaction is, however, short-lived. Actually, the whole scale of performance is small by comparison with Goodman, but within the scale de Franco is a tremendously satisfying performer. His tone is beautifully true, his rhythm excellent, his ensemble playing superior and his imagination of the highest order.

This M-G-M recording, it can be reported happily, is the first of this company's products to attract attention in some time as a good recording. The hardness and shrillness so obvious in many of their Hollywood sound-track dubbings is pleasantly missing here, and although there are moments in the review copy at hand when the surfaces are less than the best, it is over-all, a very good release.

Choral Caravan

COLUMBIA AAI. 22. 10-in.

The de Paur Infantry Chorus, Leonard de Paur, cond.

I've Got Sixpence; Vidalita; Calla no Llores; Rodger Young; Song of the French Partisans; Prenda Minha.

This is the first all-vocal group recording to come along since the inception of the Music Between department, and it represents an outstanding value.

After listening to this disk, and hearing the Chorus in public appearance in a large auditorium it is easy to realize why the quality of the group is best appreciated in a well-engineered recording. The tone quality itself is much more delicate than is generally to be expected of a male chorus. It is just this quality that the Columbia technicians capture in this recording. The balance between the various choirs, and between the inner voices in the arrangements is finely displayed in this variety of songs in three languages.

Frank Loesser's The Ballad of Rodger Young here receives what is perhaps its best presentation on disks. One of the special attributes of the de Paut chorus is its ability to deal with self-conscious material like this on a completely believable basis. The baritone George Marshall is

soloist in the Ballad. Other soloists in this recording are George Holland in the Argentine folk song, Vidalita, and Luther Saxon, one time Don José in Billy Rose's Carmen Jones, in Prenda Minha.

Sousa Marches

COLUMBIA CL 6229. 10-in.

The Goldman Band; Edwin Franko Goldman. cond.

Stars and Stripes Forever; Semper Fidelis, High School Cadets; El Capitan; U. S. Field Artillery March; The Glory of the Yankee Navy; Washington Post March; The Thunderer.

To an entire generation of Americans the work of John Philip Sousa was the ne plus ultra of music. And, while there are other successful march composers, no one comes even close to the tremendous achievement rolled up by this son of immigrant parents.

Now, coincidental with the release of a fine motion picture on the life of Sousa, Edwin Frank Goldman and The Goldman Band have recorded eight of the March King's most popular efforts.

To ears accustomed to the soaring line of strings in a full orchestra, a military band comes as something of an anticlimax. The abruptness of attack and release gives an effect of clumsiness. After the difference has been marked, it becomes apparent that this is an outstanding recording of a not-too-easily-caught group of instruments. What at first sounds like a slightly dull recording turns out to be very fullrange indeed. From the flutes and the piccolos at one end of the scale down to the tubas and bass horns at the other, all the instrumental colors are caught, in admirable perspective. The surfaces are fine. If you like military band music be sure to hear this recording.

Dialing Your Disks

In the preceding issue of HIGH FIDELITY, we began a list of recording characteristics used by record manufacturers. More returns have been received; the list now covers 27 companies.

As we said in the previous issue, recording characteristics normally include a treble boost, to submerge surface noise, and a bass-droop, to minimize groove excursion and save space. The latter takes effect below a point in the tone scale called the turnover frequency.

If the recording characteristics reported to us are plotted on graph paper, they are found to be close together in the region from 200 to 2,000 cycles. Below 200 cycles, the curves differ. London and Columbia parallel one another closely, each drooping about 12.5 db at 50 cycles. The RCA Victor "Orthophonic" and the NAB curves also run parallel to a droop of about 16 db at 50 cycles. The AES curve is shaped a little differently, and drops 18 db at 50 cycles.

At the high end, all the curves follow about the same shape, but incorporate varying amounts of treble preemphasis. NAB and Columbia reach 16 db at 10,000 cycles. At this frequency, the Orthophonic curve is up 13.7 db; AES is up 12 db; and London is up 10.5 db.

In the table below, turnover frequency and treble preemphasis are shown for each company, in accordance with one or more of the curves described above. Note that some companies use two curves; some are indicating the recording characteristics on their jackets (these are starred), other companies use their own variety of recording characteristics - for these, actual turnover frequencies and db's of treble pre-emphasis at 10,000 cycles are given.

Because some companies in the new list record to the true NAB curve (as distinguished from the Columbia modification). we have indicated NAB and COL below. For practical purposes - and most equalizers - Columbia compensation is obtained by substracting bass from NAB.

LABEL	TURNOVER	TREBLE
Atlantic ¹	NAB	NAB
Bartok	629 ²	16 db ³
Blue Note Jazz	AES	AES
Caedmon	629 ²	11 db4
Canyon	AES	AES
Capitol	AES	AES
Capitol-Cetra	AES	AES
Cetra-Soria	AES	AES
Columbia	COI.	NAB
Cook Laboratories ¹	NAB	AES
Decca	COL	NAB
EMS*	AES	AES
Haydn Society	COL	NAB
London	COL	LON
Lyrichord*, new ⁵	629 ²	16 db ³
Mercury*	AES	AES
M-G-M	NAB	AES
Oceanic	COL	NAB
Philharmonia	AES	AES
Polymusic ¹	NAB	NAB
RCA Victor	Ortho ⁶	Ortho ⁷
Remington	NAB	NAB
Tempo	NAB	Ortho ⁷
Urania*, most	COL	NAB
Urania*, some	AES	AES
Vanguard* Bach Guild	COL	NAB
Vox	COL	NAB
Westminster*	NAB ⁸	NAB ⁸

¹Binaural records produced by this label are recorded to NAB standards on the outside band. On the inside band, NAB is used for low frequencies, but the treble is recorded flat, without pre-emphasis. ²AES position on equalizer is close match. ³NAB position on equalizer is close match. ⁴Use LON position on equalizer, or AES with treble slightly cut by tone control.

¹Use LON position on equalizer, or AES with treble slightly cut by tone control. ⁵Some older records of this label were recorded to COL curve, others to AES. ⁶Very close to NAB on lows. ⁷Very close to AES on highs: cut treble slightly. ⁸Unless jacket indicates AES.

BEETHOVEN Up-To-Date



By C. G. BURKE

A LITTLE more than a year ago a survey of Beethoven on long-playing disks was published here without foreboding that an annex would be required so soon. That original discography catalogued and compared 329 LP sides, the fruit of nearly four years' recording.

1952 conspired with the record-companies to gush out a greater production of Beethoven's music than had been achieved in any entire decade since the phonograph first presented an audible tune. Nearly 400 Beethoven sides were issued during 1952, and many readers of HIGH FIDELITY pointed out in a kindly but persistent way that the discography was becoming obsolescent in its youth.

The annex is issued with the hope that it will retain utility for a long period. It discusses every Beethoven record — about 720 sides — available by mid-January, 1953, except a few that for one reason or another were not received.

1952 was a year of incipient systemization. From Decca we have all the piano sonatas by Wilhelm Kempff, and all the piano-violin sonatas by Messrs. Balsam and Fuchs. Columbia issued the nine symphonies remade from Felix Weingartner's 78's, and issued also the Second and Fourth under Bruno Walter's leadership to complete that conductor's edition of the nine. Columbia also contributed, in a single edition of three albums, the sixteen quartets and the Great Fugue in the rarity of nearly consecutive order; and Concert Hall confronted this with the completion of the quartets by the Pascal Quartet. Furthermore, it is plain that Westminster's piano-violin sonatas, begun by Doyen-Fournier, will be completed, and the same may be said of the Zecchi-Janigro performances of the pianocello sonatas.

Systemization of this sort has obvious advantages of convenience, neatness and uniformity. Its musical advantage for music-lovers, however, except those who can cheerfully afford many duplications, is not apparent. No pianist, quartet, conductor, violinist or cellist has an unqualified and unchallengeable authority in the performance of Beethoven's music, and no recording company in the world can show a technical superiority permitting its sound to be unfailingly the best. It is astonishing that Prof. Kempff, against the entire field of pianists, has been able to acquire favor in as many as fourteen of the thirty-two sonatas. Certainly no other pianist living can do it.

As in Discography I, the quality of couplings has been deliberately ignored in estimating the comparative worth of any single recorded work. As before, the discography is designed foremost as a guide, with both interpretational and sonic values indicated. As before, the writer warns that the evaluations of performance are the creations of his own experience and prejudices.

Records are listed in order of preference, the top the first, except in a few cases where the text may indicate a modification of this plan. In a few instances the second choice is a little arbitrary when it concerns either an outstanding performance in an inferior recording, or an outstanding recording of an inferior performance.

Space has been economized by omission of data on

records which were described in Discography I and are not regarded in Discography II as worthy of first or second preference. Where a record already described in the earlier collation has won first or second place in this one, data are furnished but a description is not, except occasionally and briefly. All records that have appeared since the earlier report are listed, in order of their relative merit. This order is invariably absolute only for the first and second positions, since below those points records listed in Discography I but not here could intervene. It is not believed that discophiles will much care whether a record is fourth or eighth in preference.

SYMPHONIES

NO. 1, IN C, OP. 21 (10 Editions) Preference on the aggregate of superior qualities goes to the disk of Dr. Scherchen, where we find a broad, expansive and warmhearted performance punctuated by airy details and emphasized by brilliant engineering. Here isolated instruments are exuberantly unfettered, including forward trumpers which startle jaded susceptibilities. The orchestra is presented with that concise detail-amidst-solidity for which Westminster by now ought to be famous. Every other version displays warring values. Weingartner's lovely lyricism, extraordinary sensitivity to tempo, pertinent energy, and grave analysis which gives a finality of individualization to each movement, contrive the most flowing performance within the limits of classical restraint. The older Toscanini interpretation, with the BBC Orchestra, is a coruscation of balanced details in a severer frame of cooler classicism. These are the interpretations preferred for themselves, equally excellent for alternate days; but both disks are in transfer from 78's and reveal the unavoidable shortcomings of the method, although both are satisfactory. The newer Toscanini, with the NBC Orchestra, is taut and rather short of phrase in a beautiful orderliness of the orchestra, luminously engineered to the disk without enough bass. Restoration begets a rumble.

The inviting tonal synthesis of the Boston Symphony Orchestra, which is an attraction in itself, has been capably restated by the Victor engineers, and if this version is not favored with full enthusiasm here, that is because of a failure of consistent point in Dr. Munch's direction. The Vienna Philharmonic under the upright control of Dr. Schuricht exhibit an unusual expertise of articulation in a sturdy recording whose shrillness of violins nevertheless rejects it from this competition. The romanticism of Bruno Walter has long minutes of exaltation, and some other minutes less exalted; and the sound of the old LP, through an improved compensator, is considerably better than Part I of this discography proclaimed.

And just where is the dogged metronomery of Mr. Hans Ledermann to be placed, with its implication that the burden of Beethoven's sunshine is too great a burden, and its realization by the engineers in an enveloping and centripetal sound, the most symphonic of any disk here? The "Sonor" Orchestra is not the Boston: it blows and scrapes some raw sounds; and the recording is not so brilliant as Westminster's where the emphasis is on the parts. Here it is on the whole and on balance, even giving full value to the horns so necessary to fill the harmonies; and the result is the most natural and satisfactory orchestral reproduction of the nine versions heard. One of the aspects of this Parade record leads the parade of Firsts which another aspect forlornly trails. Does this mean that its correct place is in the middle?

Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WAL 208. Two 12-in. (with Sym. No. 9). 24 min. \$11.90. -Vienna Philh. Orch., Felix Weingartner, cond. Columbia ML 4501. 12-in. 21 min. \$5.45

*BBC Orch., Arturo Toscanini, cond. Victor LCT 1023. 12-in. (with Brahms: Haydn Variations). 26 min. \$5.72.

Boston Sym. Orch., Charles Munch, cond. Victor LM 1200. 12-in. (with Haydn: Sym. No. 103). 25 min. \$5.72.

Vienna Philh. Orch., Carl Schuricht, cond.

London LS 631. 10-in. 26 min. \$4.95. —"Sonor" Sym. Orch., Hans Ledermann, cond. Parade 2010. 12-in. 26 min. \$2.99. -NBC Orch., Arturo Toscanini, cond. Victor LM 6009. Two 12-in. (with Sym. No. 9). 24 min. \$11.44. —(Sym. Orch. Royale 1302. 12-in. \$1.89.)

NO. 2, IN D, OP. 36 (8 Editions)

There is not yet a first-class disk of the Second Symphony. Resumed comparisons confirm that the Reiner interpretation is knowing, deft and infectious, formerly the best of three and now the best of at least seven. The amiable frolic of Pierre Monteux is easily second, and has a richer sound than the dry and shrill old Reiner disk. The Schuricht and Weingartner performances are in different ways tolerable, the former a little ponderous, the latter over-flippant in a rapid and disappointing projection managed with the greatest skill. The Schuricht sound is coarse and difficult when loud, fusty in the bass and acid at top; the Weingartner sound is ineffectual for these days. Where sound is the exclusive criterion, the Walter disk is the easy winner, but it must be impossible for this conductor's admirers not to be saddened at his creeping, disorderly dismemberment of the melodic and morphic integrity of the first two movements. His finale is splendid. -The loyal dreariness of the Paul Schubert effort is not contaminated by pretension. His disk offers some technical antitheses not commonplace. There are episodes that seem to evanesce, and an instrument or a

An asterisk (*) indicates a record described in Discography I.

When parentheses enclose the data on a record, the significance is that the record was not available for this survey. Such records are invariably listed last, without prejudice to whatever merit they may contain.

In a number of cases where no new records have appeared, the order of preference for the first two as printed in the earlier report is given without explanatory text. Thus, to conserve space, Discography II has been designed to dovetail with Discography I, reprints of which are available for all who may think them worth buying.

> choir will apparently swallow another, but there are passages for full orchestra resoundingly full and impressive.

> *San Francisco Sym. Orch., Pierre Monteux, cond. Victor LM 1024. 12-in. 32 min. \$5.72.

> -*Pittsburgh Sym. Orch., Fritz Reiner, cond. Columbia ML 4085. 12-in. 30 min. \$5.45.

> -Vienna Philh. Orch., Carl Schuricht, cond. London LL 629. 12-in. 33 min. \$5.95.

> -London Sym. Orch., Felix Weingartner, cond. Columbia ML 4502. 12-in. 29 min. \$5.45.

> -Homburg Sym. Orch., Paul Schubert, cond. Regent MG 5010. 10-in. 34 min. \$3.00.

> -N. Y. Philh-Sym. Orch., Bruno Walter, cond. Columbia ML 4596. 12-in. (with Sym. No. 4). 34 min. \$5.45.

> -(Sym. Orch. Royale 1251. 12-in. \$1.89.)

NO. 3, IN E FLAT, "EROICA", OP. 55 (12 Editions)

None of the three versions examined for this Annex challenges the first three estimated last year, although the beautiful Weingartner interpretation, had it been engraved to modern standards, would head the list. A distinct majesty apparently of spon-taneous simplicity, product of carefully wrought and nearly concealed emphases and mollifications, of minute inflections and hardly perceptible quickenings and falterings, is imperfectly communicated through the inadequate old recording, which belongs sonically at the foot of the column.

The Hans Ledermann version on Parade is another of this conductor's slow and sober efforts, frequently imposing just the same, thanks to a bold and unrefined but symphonic sound. Schubert, languorous in the first movement, is elsewhere acceptable. The technicians, allowing him the felicity of full harmonies from balanced choirs, have distorted the treble expression of his orchestra.

-*NBC Orch., Arturo Toscanini, cond. Victor LM 1042. 12-in. 46 min. \$5.72.

-*N. Y. Philh-Sym. Orch., Bruno Walter, cond. Columbia ML 4228. 12-in. 48 min. \$5.45.

-Vienna Philh. Orch., Felix Weingartner, cond. Columbia ML 4503. 12-in. 44 min.

cond. Parade 2005. 12-in. 52 min. \$2.99. -Homburg Sym. Orch., Paul Schubert, cond. Regent MG 5007. 12-in. 50 min. \$5.45.

---(Turin Sym. Orch. Tempo 2070. Two 12-in. (with a miscellany). \$10.14.) ---(Sym. Orch. Royale 1218. 12-in. \$1.89.)

NO. 4, IN B FLAT, OP. 60 (9 Editions) For the first part of this monograph only two versions were heard. Their interpretations were notably superior to their aging sound. It is good that among the six heard subsequently no fewer than three surpass the old ones definitely and a fourth possibly. It is particularly good that one is outstanding from all, making choice easy. Messrs. London may have some wry sentiment at the reminder that their superb creation existed last year but was not forwarded for examination. It is definitely not a disk to hide. The conductor is Mr. George Solti, who has made some good records, but none other like this. His Fourth is a gradual accretion of excitement, subdued with a progressive loosening of a resolute hand until his celebration of the gallant humors in the finale authorizes a true grandeur of disciplined tumult. Supported by rich engineering along a facile characteristic, with a rarely successful distinctness to the articulation of the bass strings and a juicy brass timbre, this performance is one of the most imposing of a Beethoven symphony, and its finale is an unforgettable and unchallenged achievement.

There are other good ones, and the crisp definition of the New York Philharmonic's sound in Bruno Walter's reading possibly makes this record preferable to Mr. Solti's in technical values alone. The performance too is good, with beautiful string playing and expert nuances, but the chaste perfection of the adagio needs no added voluptuousness, inserted here by some monkeying with its pace. Pierre Monteux, a bluff and hearty gastronome with a singular aptitude for recording works in which he is highly proficient, gives a robust interpretation without subtleties, with a finale second only to the Solti, in a plump and resounding reproduction of the San Francisco orchestra. The 331/2 minutes of this LP side enlaurel it as the new champion of duration. It is a temptation to overpraise the reprint from Felix Weingartner's old SP's for the classic serenity of his adagio and the taste and skill of his scherzo; but there is a masterinduced surface noise in this disk whose responses are hard to adjust, which lacks true highs and confesses a boom in the bass. Remington, which has done commendable work in Beethoven symphonies, continues with George Singer's steady performance, reproduced with clarity and force after careful modification of treble and bass; but the string band used in the Singer orchestra is below the customary complement,

which results in an alteration of tone. Only a man of Wilhelm Furtwängler's high talents and attainments could have had the effrontery to offer a congeries of messy preciosities and creeping tempos as an exposition of the Fourth Symphony. This curiosity was a public performance, and there are too many gross defects in the recording to describe here; but it is in effect a concerto for kettledrums, whose incredible reverberation suffocates what they should punctuate.

-London Philh. Orch., George Solti, cond. London LLP 316. 12-in. 31 min. \$5.95. -N. Y. Philh-Sym. Orch., Bruno Walter, cond. Columbia ML 4596. 12-in. (with Sym. No. 2). 31 min. \$5.45.

-San Francisco Sym. Orch., Pierre Monteux, cond. Victor LM 1714. 12-in. (with Schumann: Sym. No. 4). 33 min. \$5.72. -Sym. Orch., George Singer, cond. Remington 199-51. 12-in. 30 min. \$2.49. -London Philh. Orch., Felix Weingattner, cond. Columbia ML 4504. 12-in. 30 min. \$5.45.

-Berlin Philh. Orch., Wilhelm Furtwängler, cond. Vox PL 7210. 12-in. 36 min. \$5.95. --(Sym. Orch. Royale 1243. 12-in. \$1.89.)

NO. 5, IN C MINOR, OP. 67 (11 Editions) Both additions to this survey are resuscitations from SP's. Heard competitively, the Weingartner disk, for all its beauty of concept, must be rejected, lacking timbre and definition, not orchestrally adept. The Toscanini record cannot be treated so cavalierly. It presents an implacable and insistent intensity of drama indubitably very arousing and perhaps a little absurd. It is at the mercy of the momentary mood of the listener, and if the listener's mood is promethean here is the grandeur he needs. The orchestral playing is superb. and the engineers have a better balance here than any other recorded Fifth can exhibit, while there is little loss of detail in spite of the good age of the original registration. Unluckily the engineers had to compete with unsympathetic acoustics in their hall: the bass is all dry, serious indeed in the Fifth Symphony; and the drums - upon which Mr. Toscanini calls for heroic service - are hard, and hard to credit. If the ear can habituate itself to this aridity and the spirit accept the Toscanini imperium, this record should be as satisfactory as the Mengelberg. It certainly does not challenge Dr. Klemperer's, which sounds better now than it did a year ago, and may be considered first in the field by an appreciable margin.

Sir John Barbirolli's performance with the Hallé Orchestra is one of familiar, standard worth, engraved with plenty of orchestral weight and not much instrumental detail. —*Vienna Sym. Orch., Otto Klemperer, cond. Vox PL 7070. 12-in. 35 min. \$5.95. —*Concertgebouw Orch., Amsterdam, Willem Mengelberg, cond. Capitol P 8110. 12-in. 30 min. \$4.98.

-NBC Orch., Atturo Toscanini, cond. Victor LCT 1041. 12-in. (with Overtures Leonora No. 1 and Prometheus, and 2 movements from Quartet No. 16). 31 min. \$5.72. -London Philh. Orch., Felix Weingartner, cond. Columbia ML 4505. 12-in. 32 min. \$5.45.

-Hallé Orch., Manchester, Sir John Barbirolli, cond. Victor LBC 1018. 12-in. 32 min. (with *Mozart: Sym. No.* 41). \$3.10. --(Sym. Orch. Royale 6030. 10-in. \$1.49.) --(Sym. Orch. Royale 1219. 12-in. \$1.89.)

No. 6, IN F, "PASTORAL", Op. 68 (11 Editions)

Five new ones, including three new old ones. Of those three Mr. Mitropoulos's seems perverse without point, and it is not likely that he would imitate that Concept today. The first two movements of his day in the country resemble spiritually a Scout Jamboree; his rain falls by parachute and his lightning is tired. In reproduction the timbres are all awry in some degree. Surprisingly the Weingartner and Toscanini interpretations are similar, including andantes stressing the molto moto, too fast for this taste; but whereas the Weingartner sound, enregistered twenty-five years ago, just won't do, the BBC Orchestra reproduces surprisingly well on the Victor transfer from 78's, and the suavity of the playing deserves praise. Mr. Steinberg's record is distinguished by agreeable fluency and by a Thanksgiving of conscientiously imaginative shading. The sound here is of transparent nicety for the high frequencies, with some obscuration in the bass unless the volume is loud; and in any event this disk needs more volume than most to obtain its best effect. The Storm is formidable. Mr. Ledermann is hurt again by his rigidity; and his basically substantial recording by a swish that demolishes the musical high frequencies.

A critic who denounces fault ought to acknowledge his own —. The Scherchen *Pastoral*, sourly considered here a year ago, is deficient mainly in grace, in the first two movements: the rest is valuable, and aided by the splendid Westminster sound deserves a place higher than that assigned to it. No edition, in this opinion, compares with that of Otto Klemperer.

-*Vienna Sym. Orch., Otto Klemperer, cond. Vox PL 6960. 12-in. 42 min. \$5.95. --Pittsburgh Sym. Orch., William Steinberg, cond. Capitol \$ 8159. 12-in. 44 min. \$5.72.

-BBC Orch., Arruro Toscanini, cond. Victor LCT 1042. 12-in. 38 min. \$5.72.

-Royal Philh. Orch., Felix Weingartner, cond. Columbia ML 4506. 12-in. 34 min. \$5.45.

\$5.45.
—''Sonor'' Sym. Orch., Hans Ledermann, cond. Parade 2011. 12-in. 42 min. \$2.99.
—Minneapolis Sym. Orch., Dimitri Mitropoulos, cond. Columbia RL 3009. 12-in. 39 min. \$3.08.

---(Sym. Orch., Royale 1225. 12-in. \$1.89.)

NO. 7, IN A, OP. 92 (10 Editions)

The two newcomers will not alter the previous ordination significantly if all values are considered. For convenience let us first dispose of Dr. Furtwängler's mannered and amorphous pretention in its coarse and lopsided reproduction, remembering for sentiment's sake that this conductor used to do it better. Next let us realize that Felix Weingartner's instinctive or studied guidance of the instinctive rhythms of the most rhythmic of symphonies is magisterial, but we must realize partly by divination, since the sound, although fuller than that of most of the re-made Weingartner achievements, is incapable of carrying all that he transmitted of the Seventh to the Vienna Philharmonic. Hermann Scherchen's performance - which, barring the lumpy first movement, is good - has nothing of the assurance of Weingartner's; but who, after hearing the extraordinary orchestral opulence that Westminster has contrived for Scherchen, would prefer to listen to one of the other versions?

--*Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WL 5089. 12-in. 37 min. \$5.95.

-*N. Y. Philh-Sym. Orch., Arturo Toscanini, cond. Victor LCT 1013. 12-in. 34 min. \$5.72.

-Vienna Philh. Orch., Felix Weingartner, cond. Columbia ML 4507. 12-in. 34 min. \$5.45. -Vienna Philh. Orch., Wilhelm Furtwängler, cond. Victor LHMV 1008. 12-in. 39 min. \$5.95.

-(Sym. Orch. Royale 1303. 12-in. \$1.89.)

No. 8, IN F, OP. 93 (9 Editions)

Weingartner's Eighth is elegantly proportioned sport, its movements nicely measured against each other. Without hobbling the frolic he communicates a gratifying sense of form. The performance has an intrinsic worth that overrides the expected deficiencies of a recording dating to the 1930's. The sound is not bright, but it serves not too badly. Mr. Ledermann, after a slow start, gives a healthy, gusty discourse helped by a sound without refinement but solidly symphonic under the influence of sympathetic hall-acoustics. The use of a noise suppressor is imperative with this record.

-- *San Francisco Sym. Orch., Pierre Monteux, cond. Victor LM 43. 10-in. 25 min. \$4.67.

-Vienna Philh. Orch., Felix Weingartner, cond. Columbia SL 165. Two 12-in. (with Sym. No. 9). 23 min. \$10.90.

—"Sonor" Sym. Orch., Hans Ledermann, cond. Parade 2003. 12-in. 26 min. \$2.99. —(Hastings Sym. Orch., John Bath, cond. Allegro ALG 3049. 12-in. (with Mozart: Sym. No. 31). \$5.95.)

-(Sym. Orch. Royale 1240. 12-in. \$1.89.)

nothing ever is. The orchestras used for this work are the world's best, the conductors renowned and usually able, choruses and soloists excellent. The sound realized has been in almost every case representative of the best attainable for its recording era.

In none of the seven versions examined for this discography (side by side, movement by movement) has the expenditure of effort and money by the manufacturets been barren of laudable results. The particularities of direction in the Koussevitzky edition arouse the opposite of enthusiasm, but the bloom of the Boston Symphony Orchestra, as imprisoned here by the Victor engineers, ties reality to seductiveness to a degree still unsurpassed. If this music were to be considered purely as vertical music — if the lateral progressions were to be regarded as unimportant — this would be one of the very noblest of recordings.

Mr. Ormandy's is a better Ninth, a telling, straightforward Ninth whose ancient virtues of reproduction are now fading in the brighter light of the newer virtues of the newer recordings. The very heavy bass cannot be reduced to tractibility, and the strident high frequencies are unacceptable in 1953.

The Scherchen and Weingartner versions present perplexities that militate against quick and decisive elimination. Many discophiles will consider that the orchestral reproduction of the first is the best of any, planning, and where he is most original he seems most wrong. — Reproduction can evoke praise only. Westminster more than anyone else are expert in clarifying the elements that compose a mass of sound, and in their Ninth each instrument is audible in its peculiar vibrancy, the mass remaining solid. The chorus.is strong and not harsh, and reasonable proportions among the large forces are maintained throughout.

Sonically the Toscanini version is as good. Not quite so precise in detail as the Westminster, it is more lustrous, and its best results are given with a quicker adjustment of the compensator. Both are consistently excellent and both are obviously above their competitors. In terms of sound one is worth the other.

A true magnificence of ballyhoo accompanies the issuance of Toscanini records, whether they contain a drab performance of a Mozart divertimento or a tender *Traviata* spiced with luminous vivacity. If reason is not suffocated it is antagonized; and the repute, as opposed to the celebrity, of Mr. Toscanini, is injured. The man is a conductor, one of the best. He conducts a greater man's vehicle, and his duty is to conduct it along a route prescribed. He is a servant who serves genius, and a good servant is first attentive to his master's behests.

For this humble condition of servitude the law of compensation has a pretty



Honors in conducting the symphonies went variously to Toscanini, Solti, Weingartner, Scherchen, Klemperer and Monteux.

No. 9, IN D MINOR, WITH FINAL CHORUS ON SCHILLER'S "ODE TO JOY", OP. 125. (8 Editions)

The Ninth Symphony warrants special consideration not only because of the length and complexity of its structure, but because the record companies, in their presentation of its mighty challenge, always manage to commandeer an imposing religious rectitude - a lofty, devotional and protective motherliness - not invariably apparent in their parturition of more ordinary scores. In preparing the Ninth they summon their best, their most appropriate forces. They permit - nay they insist on - rehearsals; they supplicate their conductors to be exigent and their recording directors to be merciless; they reject, in their righteousness, the fouled note, the leaning balance, the hurried entry, the ragged cadence - when they recognize it, of course, They compute their own probity by the miles of tape they have been able to discard, by the ruined They masters, the exhausted choristers. contemplate their extravagances, the deterioration of their treasuries, in an ecstasy of virtuous gloom, for they are the handmaidens of Art, and who's counting?

There seems to be a hope renewed with each edition of the Ninth that this one will be definitive, although on the phonograph

and many music-lovers will esteem the second as the best of all the performances. But admirers of the second are unlikely to cherish the interpretation of the first, and no true amateur of sound can fail to admit that the old Weingartner recording is sonically outdated. The problem is too familiar: if we insist upon a certain impact of unmistakable orchestral reality the devoted Weingartner leadership is wasted; and if we require an absolute of Beethoven unaltered by the personality peculiar to a strong conductor, the living clarity of the Westminster sound is mere supererogation. The application of Weingartner's serenity to a work which has none produces a fluidity of motion itself productive of an assured coherence even when the music is most violent, and of an impenetrably even contour of lyricism when the music is singing.

The application of the stubborn Scherchen intellect, skeptical and imperturbable, to the same score, produces a narrative of reasoned subtlety and vast variety. It produces shock, especially in his slow tempos, even after scrutiny discerns plausibility in some of them. But the scherzo is denatured by his moderation, and twice in the finale a slow pace counters the spirit of the phrases; painfully, in this opinion. Dr. Scherchen is in full control of his careful balance. To satisfy his discontent that he is not Beethoven or Schubert the conductor receives extravagant emoluments and their perquisites. If he is not Mozart he eats better; and discourses, here, with that authority which wealth alone can confer. An inner fret can be assuaged by a pool in Beverly Hills, and on his way to conduct, the leader may be conducted in his choice of Cadillacs coared with chrome.

The flaw in the compensatory law is that it applies to the disloyal as well as to the faithful servant. The shine of the chrome enhaloes both music's priest and music's mountebank. Ballyhoo injures whomever it distinguishes; and it could have tainted the exalted repute of Florence Nightingale exactly as it has exalted the taint of the least admirable Hollywood tartlet. It is not good that the cover of a recorded Ninth Symphony carries twenty images of the servant and none of the master. May we thank God that our churches have not yet stained their glass with effigies of the cleric in charge.

The inference unfair to Toscanini is that he puts something into a musical interpretation that the composer did not write: "that he imprints the stamp of his own personality" on what he conducts. Naturally he has a style — an accumulation of predilections, talents and limitations but to achieve a true revelation of a massive epic like the Ninth Symphony he and every conductor must transcend his style or we have a dilution. The Ninth (like the Fifth and the Seventh) is ideal and ideally must be immutable. Style serves a Chopin prelude very well, and some of Haydn's symphonies, and a great deal of French music. Style means mannerisms, to be exploited with fastidious care and suppressed when it becomes presumption. With entire goodwill it cannot entirely be done, but it must be attempted.

That is in effect what Mr. Toscanini does, and what in effect he has said. The personality to be stamped on the Ninth Symphony is Beethoven's: a mingling of another would be a detraction. Recognizing the greatness of a score, the conductor scrutinizes it minutely for its deepest intentions, and then summons his own resources to express those intentions of another man, as exactly as he is able.

The last three movements of the Toscanini Ninth reveal no major deviations from the standard procedures of conscientiously able conductors; there is no intrusion of style. There is evidence of almost incredible care in the realization of every passage as the conductor conceives the composer meant it. Essentially we hear the usual musical devices inflamed by the performers hypnotized to an intensity of expression remarkable even in solo, and astonishing when tied to the requirements of orchestral and choral unity. We hear a new crispness of accent and a new decision of intonation, an uncommon bite to the staccato, a new urgency to an interjection. We have harmonic lightening because of this conductor's insistence that every instrument be audible when there are notes for them to play. The brass together, sounding as only Toscanini will make them sound, each note short and distinct like the report of a pistol magically complicated in timbre, enhance the fervor of Beethoven's evangelism in a particularly startling way. These traits do not compose a style: they prove a preparation more painstakingly thorough than other conductors can or will give to their forces.

Mr. Toscanini quickens the first movement and reduces the contrast between its subjects, bold departures from traditional ways. Like Dr. Scherchen's deliberateness, they shock; but they make a positive gain of excitement - which may not be quite right - while Dr. Scherchen instills disappointment. Furthermore, in shortening the first movement by his rapid pace, and lengthening the scherzo by inclusion of all the repeats, Mr. Toscanini has made three instrumental movements of nearly identical duration, satisfying to our sense of musical and dramatic form, each equal movement to be rejected equally by the human exhortation of the finale.

If music-lovers will accept the unrelenting drive of the first movement they will hardly cavil at the obvious excellence of the rest. To the writer this Ninth, in Victor's rich sound of these splendidly terrified performers, is not Toscanini's but Beethoven's, and more Beethoven's than any other Ninth recorded.

- Remain the versions of Bruno Walter and Erich Kleiber, commendable and probably doomed to obscurity, disadvantageously placed between the more spectacular ac-

complishments of Victor and Westminster. Dr. Walter's performance is the most romantically aspiring of all, harmonically weightier than the others and voluptuously phrased. Its sound is still impressive after forty months, especially in the full orchestra to which reverberation adds a commanding and agreeable influence. Prof. Kleiber's poetic interpretation suffers by comparison with the more decided concepts of several, and some beautiful string playing and fine singing by his soloists (with Weingartner's, the best on disks) will probably not have as many admirers as they deserve. The sound is softly cushioned, not striking in detail, with emphasis on the bass. In the first movement the violins have a metal ghost, and in the finale an abrupt change occurs in the relative prominence of the soloists to the others, the quartet first too great, then too little. London has not diminished the herculean improbability of outshining its formidable competitors by assigning four sides to their three. After all, the Scherchen First Symphony and the Weingartner Eighth are not negligible items to music-lovers, and purchasers.

-Eileen Farrell (s), Nan Merriman (ms), Jan Peerce (t), Norman Scott (bne), NBC Orch. and Robert Shaw Chorale, Arturo Toscanini, cond. Victor LM 6009. Two 12in. (with Sym. No. 1). 1 hr. 4 min. \$11.44. -*Irma Gonzalez (s), Elena Nikolaidi (a), Raoul Jobin (t), Mack Harrell (bne), N. Y. Philh-Sym. Orch. and Westminster Choir, Bruno Walter, cond. Columbia st. 156. Two 12-in. (with Brahms: Schicksalslied). 1 hr. 5 min. \$10.90.

—Hilde Gueden (s), Sieglinde Wagner (a), Anton Dermota (t), Ludwig Weber (bs), Vienna Philh. Orch. and Singverein of the Friends of Music, Vienna, Erich Kleiber, cond. London LL 632-3. Two 12-in. 1 hr. 5 min. \$11.90.

-Luise Helletsgruber (s), Rosette Anday (a), Georg Maikl (t), Richard Mayr (bs), Vienna Philh. Orch. and Vienna Nat. Op. Chorus, Felix Weingartner, cond. Columbia SL 165. Two 12-in. (with Sym. No. 8). 1 hr. 2 min. \$10.90.

-Magda Laszlo (s), Hildegarde Roessel-Majdan (a), Petre Munteanu (t), Richard Standen (bs), Vienna Nat. Op. Orch. and Vienna Singakademie, Hermann Scherchen, cond. Westminster WAL 208. Two 12-in. (with Sym. No. 1). 1 hr. 12 min. \$11.90. --(Soloists, Chorus and Orch. Royale 1267-8. Two 12-in. \$3.78.)

UNAUTHENTICATED, IN C, "JENA".

-*Munich Philh. Orch., Robert Heger, cond. Mercury MG 10055. 12-in. (with Namensfeier and Weibe des Hauses Overtures). 25 min. \$4.85.

CONCERTOS FOR PIANO AND ORCHESTRA

NO. 1, IN C, OP. 15 (4 editions)

The Gieseking-Philharmonia version merits a reminder that it is by far the best version. —*Walter Gieseking; Philharmonia Orch., Anon. cond. Columbia ML 4307. 12-in. 31 min. \$5.45.

-*Friedrich Gulda; Vienna Philh. Orch., Karl Böhm, cond. London LL 421. 12-in. 40 min. \$5.95. No. 2, IN B FLAT, OP. 19 (3 Editions) The newcomer, although not so good as we should have hoped, is so far superior to the two old ones that they do not provide serious competition. This first of Beethoven's concertos (except the very green one in E Flat) is one of his few works written in decided reflection of Mozart, and Backhaus-Krauss are inclined to take it as Beethoven pure. What it needs are lilt and tingle, more flashing sport than we are able to hear: the interpreters are too sober. Both piano and orchestra reproduce to satisfaction in a big way with masses of sound, not particularly explicit in detail.

-Wilhelm Backhaus; Vienna Philh. Orch., Clemens Krauss, cond. London 15 630. 10-in. 27 min. \$4.95.

-*William Kapell; NBC Orch., Vladimir Golschmann, cond. Victor LM 12. 10-in. 29 min. \$4.67.

NO. 3, IN C MINOR, OP. 37 (8 Editions) The several recruits fail to include a record of unqualified high merit. Still, the Moiséiwitsch-Sargent performance, compact in form, poetic without transgress, unhesitant but roundly-phrased, takes precedence over the others in spite of a sound over-influenced by echo but satisfactory as a whole and on occasion imposing. (This record is a Bluebird, far less costly in the Victor hierarchy than a terrier.) The Kraus-Moralt interpretation disappoints: it is fussy and unstable, and the piano bells above middle C. Kuntz-Schultz are capable but have no reason to love their acoustic engineers. The best sound remains that of Haskil-Swoboda on Westminster.

-Benno Moiséiwitsch; Philharmonia Orch., Sir Malcolm Sargent, cond. Victor LBC 1012. 12-in. 35 min. \$3.10.

-*Claudio Arrau; Philadelphia Orch., Eugene Ormandy, cond. Columbia ML 4302. 12-in. 35 min. \$5.45.

-Lili Kraus; Vienna Sym. Orch., Rudolf Moralt, cond. Vox PL 7270. 12-in. 33 min. \$5.95.

-Gustave Kuntz; Berlin Radio Orch., Franz Schultz, cond. Regent 5026. 12-in. 35 min. \$5.45.

NO. 4, IN G, OP. 58 (8 Editions)

A year ago this Concerto presented the most difficult *embarras de choix* in the recorded Beethoven catalogue. There were then four truly exceptional performances in engineering satisfactory or better: now there are six.

The Gieseking-Karajan collaboration fills its rich promise pretty substantially. Gieseking, the most forceful of fastidious pianists, or the most fastidious of forceful ones, demonstrates again his talent for nicety in design without detriment to musical substance or color, and his understanding with the conductor seems to be complete. The singing unison of the Philharmonia strings deserves praise, and the desired equipoise of piano and orchestra is maintained consistently. If this is not the best interpretation of the Fourth Concerto on disks there is none better; but the Backhaus-Krauss edition on London has a point of persuasive superiority to make the latter preferable. This is the transmission of a sense of sympathetic participation, a current of warmth



Walter Gieseking (left) and Vladimir Horowitz. A First Concerto retained first place; a new Fifth narrowly outpointed its predecessors.



less palpable in G. and K. It is almost assuredly a product of hall-acoustics the London sound being softer than the Columbia — but it is entirely to the advantage of the Backhaus piano and the Vienna Philharmonic Orchestra.

-Vladimir Horowitz; RCA Orch., Fritz Reiner, cond. Victor LM 1718. 12-in. 37 min. \$5.72.

-*Artur Schnabel; Chicago Sym. Orch., Frederick Stock, cond. Victor LCT 1015. 12-in. 38 min. \$5.72.

-Paul Badura-Skoda; Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster wL 5114. 12-in. 40 min. \$5.95. -Heinrich Reiter; Berlin Philh. Orch., Franz Schultz, cond. Regent 5025. 12-in. 39 min. \$5.45.

WITHOUT NUMBER, IN E FLAT (1784) (1 Edition)

Poor sound.

-*Orazio Frugoni; Pro Musica Ch. Orch., Paul Paray, cond. Vox PL 6470. 12-in. 22 min. \$5.95.

CONCERTO FOR PIANO, VIOLIN AND VIOLON-CELLO, IN C, OP. 56 (1 Edition)

A brilliant performance in a sound still satisfactory after four LP years.

-*Walter Hendl, John Corigliano, Leonard Rose; N. Y. Philh-Sym. Orch., Bruno Walter, cond. Columbia ML 2059. 10-in. 34 min. \$4.00.

CONCERTO FOR VIOLIN AND ORCHESTRA, IN D, OP. 61 (9 Editions)

Among seven performances not one is poor although there are differences, not many drastic ones. The Violin Concerto goes a more traditional and accepted way with its interpreters than most of the bigger Beethoven works do. The greatest individuality is shown by Campoli-Krips in a languid exposition at first restful, tiresome after a couple of repetitions, and unusually beautiful in the larghetto, as compensation. Taschner-Roether are agreeably competent, but the recording is deficient in orchestral articulation and excessive in bass. In the Ricci-Boult version the violinisr is lyrical, Sir Adrian is manly and the sound is the best we have, clear throughout, splendid in the tuttis.

-Ruggiero Ricci; London Philh. Orch., Sir Adrian Boult, cond. London LL 562. 12-in. 42 min. \$5.95.

*Georg Kulenkampff; Berlin Philh. Orch., The Badura-Skoda exhibition for Westminister is very good, that of the conductor is better and that of the engineers dazzling. The piano-sound here is wholly convincing and orchestral detail is superb. Dr. Scherchen has cajoled, and the engineers have reproduced, two or three *pianissimos* the most lustrous on records. The tuttis have the Westminster quality of sparkling massiveness. Such acoustical excellence will persuade many music-lovers to choose this disk.

The square stolidity of Wührer-Randolf is not enticing. Still, for \$2.49 one expects less. Good piano-sound, intermittent hum, orchestra coarse but clear; and extreme treble reduction necessary.

-*Wilhelm Backhaus; Vienna Philharmonic Orch., Clemens Krauss, cond. London LL 417. 12-in. 32 min. \$5.95.

-Walter Gieseking; Philharmonia Orch., Herbert von Karajan, cond. Columbia ML 4535. 32 min. \$5.45.

—Paul Badura-Skoda; Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WL 5143. 12-in. 34 min. \$5.95. —Friedrich Wührer; Sym. Orch., Karl

-Friedrich Wührer; Sym. Orch., Karl Randolf, cond. Remington 199-72. 12-in. 33 min. \$2.49.

No. 5, IN E FLAT, "Emperor", Op. 73 (9 Editions)

We are still without an ultimate complete excellence, but the Victor disk of Horowitz-Reiner has no major shortcomings and may be considered the best of nine. The redoubtable brilliance of this pianist is entirely at the service of the music, and Dr. Reiner, one of whose talents is to aërate an orchestra, collaborates with a spirited refinement that gives precedent to exhilatation before majesty. The heroism is still genuine although polished: this is Lee and not Grant. The sound is suave and facile, splendid for the piano and satisfactory in the orchestra. With a more painstaking delineation of the orchestral choirs it would have been outstanding.

Leadership in sound goes as usual to Westminster, but Mr. Badura-Skoda has not the delicacy to match that of his conductor, and the accentuation of both often suggests a laud to perseverance when we should prefer a cry of rapture. — From Regent we have a standard performance which excites less interest than the contradictory qualities of its reproduction, wherein the piano is good and the orchestra full-toned but overconfident and blowzy; harsh with intermittent gleams of splendor. Hans Schmidt-Isserstedt, cond. Capitol P 8099. 12-in. 45 min. \$4.98.

-Gerhardt Taschner; Berlin Radio Orch., Paul Roether, cond. Regent 5029. 12-in. 41 min. \$5.45.

-Alfredo Campoli; London Sym. Orch., Josef Krips, cond. London LL 560. 12-in. 44 min. \$5.95.

OVERTURES

CORIOLAN, OP. 62 (5 Editions)

This wonderful thing which is like no other music, a battle with no hope of victory but no striking of colors, perfect in form and inexorable in tragedy, demands an inexorable moderation of pace. This sine qua non disposes of the beautifully played and recorded version of the Philadelphia Orchestra, their conductor in an unlikely and uncomely hurry; and of the commendably recorded Rhineland performance, led by another sprinter. Capitol's orchestra and sound are inferior to Columbia and London, without a compensating illumination from the conductor Keilberth; and this leaves Mr. van Beinum ahead, with a convincing performance (except for a needless retard in the development), the second-best orchestra and a fine sound different from Columbia's but equalling it in value.

-London Philh. Orch., Eduard van Beinum, cond. London LD 9021. 10-in. (with Egmont Overture). 9 min. \$2.95.

-Bamberg Sym. Orch., Joseph Keilberth, cond. Capitol P 8164. 12-in. (with Egmont and Leonora No. 3 Overtures). 8 min. \$4.98. -Rhineland Sym. Orch., Alfred Federer, cond. Regent 5035. 10-in. (with Leonora Overture No. 2). 7 min. \$3.00. -Philadelphia Orch., Eugene Ormandy,

—Philadelphia Orch., Eugene Ormandy, cond. Columbia AAL 15. 10-in. (with Egmont Overture). 7 min. \$2.85.

EGMONT, OP. 84 (8 Editions)

Two of the versions are included in recordings of the complete Egmont music. Neither challenges the best of those listed under the present rubric. An unusual feature is that the three outstanding recordings in sound are impressive in performance. These are Ormandy, Beinum and Keilberth in that order of imposing sonics, and perhaps the same hierarchy prevails in inter-The Philadelphia Orchestra's pretation. perpetual glory is manifest in a way that makes Mr. Ormandy's nervous control very exciting, while the more resolute concepts of the others are not delivered with the same finality. There seems to be some overcutting in the London record, which would make the Capitol a more prudent choice for second.

-Philadelphia Orch., Eugene Ormandy, cond. Columbia AAL 15. 10-in. (with *Coriolan Overture*). 8 min. \$2.85.

-Berlin Philh. Orch., Joseph Keilberth, cond. Capitol P 8164. 12-in. (with Coriolan and Leonora No. 3 Overtures). 9 min. \$4.98. -London Philh. Orch., Eduard van Beinum, cond. London LD 9021. 10-in. (with Coriolan Overture). 9 min. \$2.95.

-(Sym. Orch. Royale 6063. 10-in. (with Mozart: Eine kleine Nachtmusik). \$1.89.)

FIDELIO, OP. 72b (4 Editions)

Two of these versions precede complete recordings of *Fidelio* and disappoint: one for sound, the other for performance. The separate editions are good, with decided preference for the mighty Westminster sound against the excellent London sound, and for the brilliant Vienna performance against the smaller exuberance of the London.

-Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WL 5177. 12-in. (with the 3 Leonora Overtures). 6 min. \$5.95. -London Philh. Orch., Eduard van Beinum, cond. London LD 9024. 10-in. (with Prometheus Overture). 7 min. \$2.95.

LEONORA, NO. 1, OP. 138 (2 Editions) Whether the first written or the third, the

least familiar of the four Fidelio Overtures is respected and slighted like a king's brother. It has never become established in the repertory of any standard orchestra, because there is a Leonora No. 3, and it is never given in conjunction with the opera, because of the Overture called Fidelio. Two phonographic versions restore the deficiency. That by Arturo Toscanini is one of a series of successful recordings made with the BBC Orchestra before the war, and the ones translated to LP hide their age in imposing fashion. Swift, limpid, unrelenting and precise in the proportions of choirs, the Toscanini projection clarifies design, and by mollifying contrasts declares the status of the Overture as a prelude to a drama. Dr. Scherchen gives more of the drama in the Overture: he offers a symphonic poem with its conflicts underlined, more ominous in its slow sections, more exultantly triumphant in its crises, more massive and more appealing both, decidedly more romantic. Most discophiles will be influenced by the formidable and electrifying sound thundering from the Viennese orchestra in the Westminster engineering. Smooth and pleasant as the BBC reproduction is, it may not be compared without diffidence to the newer recording. -Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WL 5177. 12-in. (with Leonora Overtures No. 2 and 3; and the Fidello Overture). 10 min. \$5.95.

-BBC Orch., Arturo Toscanini, cond. Victor LCT 1041. 12-in. (with Sym. No. 5; Prometheus Overture; 2 Muts. from Qt. No. 16). 8 min. \$5.72.

LEONORA, No. 2, OP. 72 (3 Editions) The new Scherchen record blows the others away out of competition. Those are uncertain in performance and sound; the Scherchen is an irresistibly vigorous and confident expression of romantic belief, storming the firmament in a brilliant organization of mighty and detailed sound.

-Vienna Nat. Op. Orch., Hermann Scherchen, cond. Westminster WL 5177. 12-in. (with Fidelio Ovt. and Leonora Ovts. 1 and 3). 15 min. \$5.95.

-Rhineland Sym. Orch., Alfred Federer, cond. Regent 5035. 10-in. (with Coriolan Out.). 15 min. \$3.00.

LEONORA, NO. 3, OP. 722 (7 Editions) Not one of the older versions is as desirable as any of the four new ones. Of the latter the performance of the Vienna Philharmonic under Karl Böhm in Vox's complete *Fidelio*

has an exceptional poetic suppleness without sacrifice of climatic force. Unfortunately the sound of this is hard to adjust in reproduction, and mediocre when adjusted. The effect of Mr. van Beinum's interpretation will be proportional to his hearers' knowledge of the Overture. His is a sleek and well-constructed exposition which at a third hearing convicts itself of comfort. A matter of tolerant accentuarion. The London sound is excellent.

There is good reproduction too from Capitol's edition by Mr. Keilberth, notable for its dramatic feeling and outstanding in the power of its culmination. But the completest performance is that from Dr. Scherchen, whose blazing delivery is supported by an engineering fulfillment like that of no other edition. Details are audible here that all other records hide: we have the score in a symphonic realization not to be foregone once heard. Not lust of sound for sound's sake, but contentment with the gift of entirety, is the emotion stimulated by this recording.

-Vienna Nat. Öp. Orch., Hermann Scherchen, cond. Westminster WL 5177. 12-in. (with Fidelio Ovt. and Leonora Ovts. 1 and 2). 15 min. \$5.95.

-Bamberg Sym. Orch., Joseph Keilberth, cond. Capitol P 8164. 12-in. (with Egmont and Coriolan Ovts.). 14 min. \$4.98.

-London Philh. Orch., Eduard van Beinum, cond. London LD 9022. 12-in. (with Weihe des Hauses Ovt.). 15 min. \$2.95.

NAMENSFEIER, OP. 115 (1 Edition) —*Munich Philh. Orch., Robert Heger, cond. Mercury 10055. 12-in. (with "Jena" Symphony and Weihe des Hauses Out.). 7 min. \$4.85.

PROMETHEUS, OP. 43 (5 Editions)

The shortest of Beethoven's overtures is too short for the long title "The Creatures of Prometheus", reserved for the long ballet complete. Two versions of the Overture are with the ballet editions (Concert Hall, integral, and London, about half); both are good enough not to require replacement. However, Mr. van Beinum's enjoyable excursion has better sound on this 10-incher than its 12-inch prototype, and Mr. Toscanini's work, sparkling in the orchestra in spite of poorish reproduction, is cheerfully hurried and graceless, recalls Rossini. -London Philh. Orch., Eduard van Beinum, London LD 9024. 10-in. (with cond. Fidelio Ovt.). 5 min. \$2.95.

-NBC Orch., Arturo Toscanini, cond. Victor LCT 1041. 12-in. (with Sym. No. 5; Leonora Ovt. No. 1; 2 Mvts. from Qt. No. 16). 5 min. \$5.72.

RUINS OF ATHENS, OP. 113 (1 Edition) The one recording makes part of Concert Hall's complete Op. 113.

(Die or Zur) WEIHE DES HAUSES, OP. 124 (4 Editions)

Until they were corrected, conductors used to condescend to this great orchestral hymn as minor Beethoven. — Mr. Van Beinum, in a valiant try at overtaking Mr. Toscanini's sprint at the wire, just fails, but achieves what the Parmesan never can: perfunctoriness. The Federer performance states the ceremonial solemnity and joy of *The Con*secration of the House not quite so thoroughly as Gotthold Lessing did on a record whose sound will no longer pass, but it states it. The Federer sound is hard, but clear and near; inferior in this work to Beinum only. —Rhineland Sym. Orch., Alfred Federer, cond. Regent 5033. 10-in. (with Smetana: The Moldau). 11 min. \$3.00.

-*NBC Orch., Arturo Toscanini, cond. Victor LM 6. 10-in. (with Schumann: Manfred Overture). 9 min. \$4.67.

-London Philh. Orch., Eduard van Beinum, cond. London LD 9022. 10-in. (with Leonora Ovt. No. 3). 10 min. \$2.95.

FIDELIO; RUINS OF ATHENS; PROMETHEUS The disk enclosing this trio of overtures arrived too late for the works to be listed in their places, but since the *Ruins of Athens* Overture has its only isolated recording here, it was thought serviceable to find place to note it. — All performances are good standard, borne by rousing sound, dissimilar for the two sides. The Munich side must have decisive treble reduction, and the long reverberation softens the impact. Prometheus is as good as any; Fidelio will not be preferred to Dr. Scherchen's, and the only other *Ruins of* Athens is in Concert Hall's complete recording of the incidental music.

-Bamberg Sym. Orch., Ferdinand Leitner, cond. (*Fideliv*); Munich Philh. Orch., Fritz Rieger, cond. Decca DL 4047. 10-in. 6, 5, 5 min. \$2.50.

MISCELLANEOUS ORCHESTRAL WORKS

ROMANCES FOR VIOLIN AND ORCHESTRA, No. 1, IN G, OP. 40; No. 2, IN F, OP. 50 (3 Editions)

The gentle contentment of these soft paintings has provoked the contempt of many who love Beethoven well but feel that he had no more right to contentment than Mozkowski to majesty. But they are inviting and pleasant although frail and unmemorable. Three leading violinists have no difficulty in making the short holidays agreeable, via records. If this music is regarded as a pair of solos against an orchestral background the elegant, aloof and beautiful fiddling of Mr. Heifetz is the thing to have, with the orchestra trotting obediently in his shadow except for several coarse forte interjections. If the Romances are accepted as miniature concertos, the clean, dispassionate line of Mr. Francescatti's violin will be found in gratifying contrast with a rich and assertive romanticism from the orchestra directed by Mr. Morel, who participates as an equal. For Decca, Mr. Fuchs supplies the warmth which Mr. Scherman's rather casual accompaniment does not. Columbia's sound is notably purer than the others'. -Zino Francescatti; Columbia Sym. Orch., Jean-Paul Morel, cond. Columbia ML 4575. 12-in. (with Bruch: Concerto No. 1). 7, 9 min. \$5.45.

-Jascha Heifetz; RCA Sym. Orch., William Steinberg, cond. Victor LM 9014. 12-in. (with Mozart: Concerto No. 5). 7, 8 min. \$5.72.

-Joseph Fuchs; Little Orch. Society, Thomas Scherman, cond. Decca DL 5004. 10-in. 8, 9 min. \$2.50.

CONTRETAENZE (12) FOR ORCHESTRA, G 141 (1 Edition) Whether "contra" or "country", these dances

Whether "contra" or "country", these dances have the interesting blend of elegance and rusticity — a scent of the ballroom, a whiff of the stable — found in the similar dances of Haydn and Mozart. Tuneful, rhythmic, varied in their artful orchestration, each about a minute long, they are played on the Litschauer record with the simple line and strong accent upon which their bucolic effect depends. The sound is brilliant, enlivening; and it needs a generous downward push in the treble.

-Vienna Nat. Op. Orch., Franz Litschauer, cond. Vanguard 429. 12-in. (with Viennese Dances). 11 min. \$5.95.

VIENNESE DANCES (11) FOR ORCHESTRA (1 Edition)

There is an easier orchestration, less brilliant, subtler and suaver, in this late miscellany of rhythms, than in Beethoven's earlier orchestral dances. It is to be noted that Mr. Litschauer is sensitive to the difference, and reduces the orchestra's bounce that was seemly in the Contra-Dances to a more urbane glide. This was Beethoven on holiday, and the record reflects it pleasantly in a bright sound which ought to be dulled in reproduction, lest the violins cut.

-Vienna Nat. Op. Orch., Franz Litschauer, cond. Vanguard 429. 12-in. (with Contratänze, G 141). 18 min. \$5.95.

(12) GERMAN DANCES, G 140 (1 Edition) By no means dissimilar to those of Mozart and Haydn, and like them distinguished by resourceful and often whimsical orchestration, this set is solidly rhythmic and enlivening. It is open-air music, with forward wind-parts and muscular use of the drums, but Mr. Leibowitz and the engineers have contrived a curiously intimate feeling in their record, skillfully played and gemlike in sound. If at first this has a glint like that of rock-candy, patience at un-trebling via the compensator will produce a sound that with more spaciousness would have been splendid, and confined as it is has a cheerful lucidity.

-French Nat. Radio Orch., René Leibowitz, cond. Esoteric 512. 12-in. (with Mozart and Schubert: German Dances). 19 min. \$5.95.

(Die) GESCHOEPFE DES PROMETHEUS, BAL-LET, OP. 43 (1 Edition)

The Overture and Finale, played by Mengelberg on Capitol P 8078, comprise a balanced and justifiable concert piece. The Overture and seven numbers arbitrarily selected by Mr. van Beinum to occupy a 12-inch disk represent an old procedure of offhand and carefree cutting. One tableau from Prometheus has as much value as another. One will not find in the printed matter accompanying the Beinum record any indication that about half the music has been omitted. And since the performance has more weight than ease, and much of the sound is harsh, the old Concert Hall edition of the complete ballet, affectionately directed by Walter Goehr, assumes a new allure. The Concert Hall reproduction is better for its day than the London is for its, and if the latter has some brilliant moments, the former has no oppressive ones. But fundamentally Mr. Goehr presents The Creatures of Prometheus; Mr. van Beinum a depopulation.

-*Winterthur Sym. Orch., Walter Goehr, cond. Concert Hall CHS 1063. Two 12-in. 1 hr. 12 min. \$11.90. -*(Overture and Finale only.) Concert gebouw Orch., Willem Mengelberg, cond. Capitol P 8078. 12-in. (part of a miscellany). 9 min. \$4.98.

-(Overture, Nos. 1, 3, 5, 9, 11, 15, and 16 only.) London Philh. Orch., Eduard van Beinum, cond. London LL 577. 12-in. 38 min. \$5.95.

MISCELLANEOUS

INSTRUMENTAL

ANDANTE FAVORI, IN F, G 170 (2 Editions) —*Etno von Dohnanyi. Remington 199-16. 12-in. (with Sonata No. 17; Haydn: Variations in F Minor). 8 min. \$2.49.

-*Jacob Lateiner. Columbia ML 4335. 12-in. (with Sonata No. 32). 11 min. \$5.45.

EQUALI FOR FOUR TROMBONES (1 Edition) —*Schumann Brass Choir. Renaissance x 31. 12-in. (with Sonata for Piano and Horn). 6 min. \$5.95.

FANTASY FOR PIANO, IN G MINOR, OP. 77 (1 Edition)

-*Rudolf Serkin. Columbia ML 4128. 12-in. (with Trio No. 4; Sonata No. 24). 9 min. \$5.45.

POLONAISE FOR PIANO, IN C, OP. 89 (1 Edition)

Presented during the Congress of Vienna to the Tsarina of Alexander I, the work and its dedication were required by the Empress with fifty ducats, to which a hundred were added to discharge the obligation implicit but thitherto unacknowledged, of the dedication, years before, of the three Sonatas, Op. 30, to the Tsar. Thus the lively little Poloniase obtained for Beethoven a sum whose buying-value today would approximate fifteen hundred dollars, a compensation he could normally expect to receive for six complete Quartets. - Martial spirit is diluted in Mr. Steurer's fluent fingering, which evokes no artillery, no flash of lances. Reproduction gives a piano tone without apparent adulteration; equal to the best and remarkable.

-Hugo Steurer. Urania 7055. 12-in. (with Sonatas No. 4 and 19). 6 min. \$5.95.

RONDOS FOR PIANO, OP. 51: NO. 1, IN C; NO. 2, IN G (1 Edition)

Characteristic if a little pretty, and played in the neat designs affected by Mr. Steurer, here of an engaging propriety. — Splendid sound: on the basis of her three Steurer disks Urania may claim the highest percentage of success for the piano among all the recording companies.

-Hugo Steurer. Urania 7033. 12-in. (with Sonatas No. 13 and 20; Rondo a Capriccio, Op. 129; Variations, Op. 76). 5, 9, min. \$5.95.

RONDO A CAPRICCIO, FOR PIANO, IN G, Op. 129 (1 Edition)

The nickname "Rage over the Lost Penny" fits the cheerful tempest of a brilliant fancy as many nicknames do not. Amusing Beethoven, good Steurer, exceptional recording of the piano.

-Hugo Steurer. Urania 7033. 12-in. (with Sonatas No. 13 and 20; Rondos, Op. 51; Variations, Op. 76). 6 min. \$5.95.

RONDO FOR PIANO AND VIOLIN, IN G, G 155 (1 Edition)

Fritz Kreisler made the principal tune of this known in a dismemberment for encore

purposes: by contrast the frail original seems solid. Direct playing and excellent recording.

-Franz Osborn, Max Rostal. London LL 162. t2-in. (with P & V Sonata No. 7; Brahms: Sonata Movement). 4 min. \$5.95.

SONATA FOR PIANO AND HORN, IN F, Op. 17 (1 Edition)

The only recording is by whispering piano and assertive trombone. Where is Mr. Mason Jones?

-*Sam Raphling, Davis Shuman (trombone). Renaissance x 31. 12-in. (with 3 Equali for 4 Trombones). 16 min. \$5.95.

TRIO FOR PIANO, CLARINET (OR VIOLIN) AND VIOLONCELLO, IN B FLAT, "GAS-SENHAUER", OP. 11 (3 Editions)

The Decca version, employing Mr. Kell's clarinet, has the attraction of that instrument and smoother acoustics to oppose to the grand benevolence of the Perpignan Festival performance of Messrs. Casals et al., with violin for clarinet. In principle the clarinet is to be preferred: other bases of choice, including the oversides, are uneasy. An older version is distanced.

-*Mieczyslaw Horszowski, Reginald Kell, Frank Miller. Decca DL 9543. 12-in. (with *Mozart: Trio in E Flat, KV 498*). 19 min. \$5.85.

-Eugene Istomin, Alexander Schneider, Pablo Casals. Columbia ML 4571. 12-in. (with Trio No. 5). 22 min. \$5.45.

TRIOS FOR PIANO, VIOLIN AND VIOLONCELLO NO. 1, IN E FLAT, OP. 1, NO. 1 (I Edition) —*Alma Trio. Allegro AL 34. 12-in. (with Trio, Op. 11). 25 min. \$5.45.

NO. 2, IN G, OP. 1, NO. 2 (3 Editions) The warm eloquence of the Casals cello is the deciding influence, but owners of the Balsam —Guilet — Navarra version, which has a sprightly appeal, are not urged to discard it. Neither has ideal sound although both are satisfactory, Concert Hall woody in the cello and Columbia brittle near the top of the piano.

-Eugene Istomin, Alexander Schneider, Pablo Casals. Columbia ML 4573. 12-in. 38 min. \$5.45.

-*Artur Balsam, Daniel Guilet, André Navarra. Concert Hall CHC 27. 12-in. 33 min. \$5.45.

No. 3, IN C MINOR, OP. 1, No. 3 (I Edition) —*Alma Trio. Allegro AL 40. 12-in. (with Adagio, Variations and Rondo, Op. 121a). 23 min. \$5.45.

No. 4, IN D, "GEISTER", OP. 70, NO. 1 (2 Editions)

-*Rudolf Serkin, Adolf Busch, Hermann Busch. Columbia ML 4128. 12-in. (with Piano Sonata No. 24 and Fantasy in G Minor). 22 min. \$5.45.

-(Boston Trio. Allegro ALG 3026. 12-in. (with Trio No. 2). \$5.95.)

No. 5, IN E FLAT, OP. 70, No. 2 (2 Editions) An excellent performance by the Alma Trio, raw-toned from hard acoustics, must give place here to a consummate interpretation itself injured in the recording by an environment not sympathetic enough. Still the mellowness of tone is not concealed in the Columbia edition although it is modified. The grace of phrase, the variable response, the temperamental susceptibility, the élan of pleasure in being able to play this healthy music with this health, cannot be seriously modified even when the piano clatters. —Eugene Istomin, Alexander Schneider, Pablo Casals. Columbia ML 4571. 12-in. (with *Clarinet Trio*, *Op. 11*). 31 min. \$5.45. —*Alma Trio. Allegro AL 4. 12-in. (with Haydn: Trio No. 1). 24 min. \$5.45.

No. 6, IN B FLAT. "ARCHDUKE", OP. 97 (6 Editions)

Alas, Emanuel Feuermann! Were you still here you and your colleagues of Victor LCT 1020 could give us your Archduke again, this time with the living vibrancy that the engineers of a dozen years ago could not contrive. For in all the details that must combine to make a great performance of great music, the Rubinstein-Heifetz-Feuermann playing is not surpassed, and a specific glory of tone, with an unaffected refinement of execution, makes the record unique among all-star exhibits. But the sound is compressed, and fails of the vital impact that recorded chamber music must now have. Several patently poorer efforts have a patently greater effect.

Primarily the version of Rapf-Jilka-Schwartzl, in spite of a lusterless string tone, downright unpleasant in places, conveys the confident majesty of the greatest Trio. In shape and major details this is the Rubinstein-Heifetz-Feuermann product in burlap instead of damask. It must have bass added and treble subtracted, beyond the capacity of many compensators.

Jambor-Aitay-Starker have a manly, spirited concept in a clear, slightly hard sound somewhat better than that of Rapf et al. The trouble here is that the pianist cannot communicate eloquence equal to his associates', and so in a superior frame we have an incomplete picture. Nevertheless, where the Remington version immediately above cannot be corrected to acceptable reproduction, this would be the preferred edition.

The best-engineered sound of all and by far is that of the inferior exposition by Skoda-Fournier-Janigro. These men are good musicians, so it is hard for us not to infer that their introduction, as a unit, to the Archduke, must have occurred shortly before the recording. The phrasing is often soft and pointless, particularly in episodes, and less frequently blatant, as if problems had not been discussed; and there are times when the pianist seems to be giving an exhibition, as a whole commendable, of sightreading.

A generally agreeable sound — barring a dozen buzzes from the violin — is wasted on a wan and dainty emasculation by the Trio di Trieste.

Istomin-Schneider-Casals offer a succession of seductive noises in isolation as a substitute for the valor and nobility of the *Archduke Trio*. This is the work in slow motion, its lateral contours in ruins. (It is hardly important that the sound is rather congested, with a sputtering piano at its top.) Only the most famous musicians operate these willful defacements: others don't dare.

-*Kurt Rapf, Alfred Jilka, Peter Schwartzl. Remington 199-27. 12-in. 34 min. \$2.49. -Agi Jambor, Victor Aitay, Janos Starker. Program 707. 12-in. 36 min. \$5.95. -*Artur Rubinstein, Jascha Heifetz, Emanuel Feuermann. Victor LCT 1020. 12-in. 35 min. \$5.72.

-Paul Badura-Skoda, Jean Fournier, Antonio Janigro. Westminster WL 5131. 12-in. 43 min. \$5.95.

-Trio di Trieste. London LL 599. 12-in. 36 min. \$5.95.

-Eugene Istomin, Alexander Schneider, Pablo Casals. Columbia ML 4574. 12-in. 42 min. \$5.45.

MOVEMENT IN B FLAT, G 154 (1 Edition) —*Mannes-Gimpel-Silva Trio. Decca DL 9555. 12-in. (with *Clara Schumann: Trio in G Minor*). 6 min. \$5.85.

TRIOS FOR VIOLIN, VIOLA AND VIOLONCELLO No. 1, IN E FLAT, OP. 3 (1 Edition)

-*Pasquier Trio. Allegro ALG 3023. 12in. 35 min. \$5.95.



Alfred Jilka: his trio topped the Archdukes.

NO. 2, IN G, OP. 9, NO. 1 (2 Editions) The differences between two pleasant interpretations are slight ones, of style: Bel Atte with a more romantic sweep, Pasquier tauter. Sonic values superficially favor the latter in a cleaner atticulation, but the record is stingy with volume, and reinforcing it also brings up low-frequency noise. Say a deadlock.

--*Pasquier Trio. Allegro ALG 3031. 12-in. (with Serenade, Op. 8). 25 min. \$5.95. --Bel Arte Trio. Decca DL 9635. 12-in. (with Trio No. 3). 21 min. \$5.85.

No. 3, IN D, OP. 9, No. 2 (2 Editions) Bel Arte use their imagination and energy to lyrical and dramatic effect in a beautiful performance, while Pasquier seem to remember past glories and rest in a disappointing passivity to the possibilities of this music. Reproduction is good in both cases. —Bel Arte Trio. Decca DL 9635. 12-in. (with Trio No. 2). 24 min. \$5.85. —*Pasquier Trio. Allegro ALG 3015. 12-in. (with Trio No. 4). 23 min. \$5.95.

No. 4, IN C MINOR, OP. 9, No. 3 (2 Editions) Brethren against brethren in an unprecedented phonographic duplication. To the Pasquiers goes the verdict because, besides fraternity, they have equality, which in a Trio has more value than the Fuchs' liberty. In the Fuchs playing brother Harry is pretty constant, but brother Joseph or sister Lillian tends to disappear on occasion; and too often when Joseph is there we are forced to remember how superb a violinist he is. Jean, Pierre and Etienne profess and display equivalence. Both disks sound out satisfactorily, and as a whole, one as well as the other.

-*Pasquier Trio. Allegro ALG 3015. 12-in. (with Trio No. 3). 21 min. \$5.95.

-Fuchs Trio. Decca DL 9574. 12-in. (with Serenade, Op. 25). 21 min. \$5.85.

TRIO FOR PIANO, FLUTE AND BASSOON, IN G

Definitely pretty music by a lad of fifteen or so about to renounce prettiness. The playing on this record does not earn serious evaluation.

-Alfred Brendel, Camillo Wanausek, Leo Cermak. SPA 28. 12-in. (with Sonata for P & Fl). 23 min. \$5.95.

QUINTET FOR PIANO, OBOE, CLARINET, BASSOON AND HORN, IN E FLAT, OP. 16 (1 Edition)

-*Messrs. Frugoni, Baudo, Druart, Allard and Coursier. Vox PL 6040. 12-in. (with Variations in C Minor, G 191). 25 min. \$5.95.

QUINTET FOR STRINGS, IN C, OP. 29 (1 Edition)

Vincent d'Indy, quoted in the notes to this record, found the music more revolutionary than less vehement critics think. It has professional invention and profundity, but vacillates between amiability and determination with more charm than consequence. The reinforced Pascals handle it with comfortable grace in a spacious recording that requires the familiar downward push of the treble control.

-Pascal Quartet, Walter Gerhard, 2nd viola. Concert Hall CHS 1214. 12-in. 34 min. \$5.95.

Rondino For Two Oboes, Two Clarinets Two Bassoons and Two Horns, in E Flat, G 146 (1 Edition)

-*Octet from Little Orch. Soc., cond by Thomas Scherman. EMS I. 12-in. (with Octet, Op. 103). 7 min. \$5.95.

SEPTET FOR VIOLIN, VIOLA, VIOLONCELLO, BASS, CLARINET, BASSOON AND HORN, IN E FLAT, OP. 20 (2 Editions)

-*Pro Musica Chamber Group. Vox PL 6460. 12-in. 33 min. \$5.95.

---*Jilka Septet. Remington 199-22. 12-in. 39 min. \$2.49.

SEXTET FOR TWO CLARINETS, TWO BAS-SOONS AND TWO HORNS, IN E FLAT, OP. 71 (1 Edition)

-*Wind Group of the Vienna Philh. Orch. Westminster WL 5003. 12-in. (with Octet in E Flat, Op. 103). 21 min. \$5.95.

SERENADE FOR FLUTE, VIOLIN AND VIOLA, IN D, OP. 25 (2 Editions)

More élan from Baker et al; more gravity from the Wummer group. Less discretion to the Columbia recording, but more solidity. Opulent sound from the Baker flute, agile acrobatics from the Wummer: a pleasant evening from either side, but no *Ervica*, and no cause to regret either choice. -*John Wummer, Alexander Schneider, Milton Katims. Columbia ML 2124. 10-in. 23 min. \$4.00. -Julius Baker, Joseph Fuchs, Lillian Fuchs. Decca DL 9574. 12-in. (with String Trio No. 4). 24 min. \$5.85.

SERENADE FOR VIOLIN, VIOLA AND VIOLON-CELLO, OP. 8 (2 Editions)

--*Joseph Fuchs, Lillian Fuchs, Leonard Rose, Decca DL 7506. 10-in. 27 min. \$3.85.

-*Pasquier Trio. Allegro ALG 3031. 12-in. (with String Trio No. 2). 27 min. \$5.95.

OCTET FOR TWO OBOES, TWO CLARINETS, TWO BASSOONS AND TWO HORNS, IN E FLAT, OP. 103 (3 Editions)

-*Octet cond. by Fernand Oubradous. Vox PL 6130. 12-in. (with Mozart: A Musical Joke). 23 min. \$5.95.

-*Octet from Little Orch. Soc., cond. by Thomas Scherman. EMS 1. 12-in. (with Rondino, G 146). 22 min. \$5.95.

-*Octet from Vienna Philh. Orch. Westminster WL 5003. 12-in. (with Sextet, Op. 71). 22 min. \$5.95.

QUARTETS FOR PIANO AND STRINGS, G 152 No. 1, IN E FLAT; NO. 2, IN D; NO. 3, IN C (1 Edition)

Only once later, in his arrangement of the Quintet, Op. 16, did Beethoven write for this combination, which is to be found only sparsely in the works of the great composers. Most music-lovers will be hearing these Quartets fot the first time on these records, and they should have an agreeable surprise. The music is from Beethoven's waste-basket, written when he was fifteen and not published until five years after his death. We expect little, and heat charming, unmistakable anticipations in miniature of the great man to come, particularly in the melodic formation, already decidedly Beethovenian, in the alterations of mood, the rough interpolations and the characteristic brio of the allegros. They give a simple pleasure, and are played to give it, with an unaffected directness and admirable assimilation of style, the insutrectionary utchin incompletely disguised as Fauntleroy. The sound is clear, with a gratifying sense of life, but some environmental influence has attenuated the string tone in a Curious way, not disagreeable once the ear has accepted it. -Artut Balsam, piano; Jacques Dumont, violin, Leon Pascal, viola, Robert Salles, cello, of the Pascal Quartet. Concert Hall CHS 1215. 12-in. 19, 19, 15 min. \$5.95.

VOCAL MUSIC, INCLUDING WORKS FOR THE CHURCH AND THE STAGE

ADELAIDE, OP. 46

Two versions of this short cantata are noted under Songs, below.

AN DIE FERNE GELIEBTE, CYCLE OF SIX SONGS, OP. 98 (2 Editions)

Has a much tougher fabric than a casual hearing or two can indicate. The simplicity of sentiment has a musical sophistication that makes interest greater at the tenth repetition than at the fifth. Mr. Horne sings well but his voice not especially suited to Beethoven, and record is aging. There is no reason to look beyond Mr. Poell, in good form with the excellent accompaniment and ripe sound that he receives on the Westminster disk, which will not date quickly.

-Alfred Poell, bass; Victor Graef, piano. Westminster WL 5124. 12-in. (with Adelaide and Seven Songs). 14 min. \$5.95. -*William Horne, tenor; Franz Rupp, piano. Mercury 15016. 10-in. (with Brahms: Six Songs). 13 min. \$3.85.

CANTATA ON THE DEATH OF JOSEPH II, G 196a (1 Edition)

--*Ilona Steingruber (s), Alfred Poell (bs), Akademie Choir and Vienna Sym. Orch., Clemens Krauss, cond. Vox PL 6820. 12-in. 43 min. \$5.95.

CHRISTUS AM OELBERG (CHRIST ON THE MOUNT OF OLIVES), ORATORIO, OP. 85 (1 Edition)

Through the composer's life the Mount of Olives had a continuous success, whose repetition now the economics of our epoch forbid. Churches cannot afford to employ the large orchestral forces necessary, and when the established orchestras undertake the expenses corollary to a Beethoven choral work they present one of the two giants, Ninth Symphony or Mass in D. The Choral Fantasy, the Mass in C and the Mount of Olives are relegated to the phonograph, although they are big statements of the most familiar Beethoven. The dramatic fervor of the Oratorio must inevitably suggest the Eroica with which it was immediately coeval; and Beethoven could not conceive his divine Protagonist without virility, a valuable illumination of his characteristic theology. The record is above all successful in its projection of this drama. The Swoboda hand knows better how to drive than to restrain, and the unpolished orchestra implies a minimum of rehearsals. The chorus is vehement but could have been more advantageously disposed. The solo tenor is extremely competent, the soprano routine. Here and there the violins shimmer wire. The impact as a whole is substantial. Call the disk adequate: it should have been better. The German text is printed without translation.

-Margit Opawsky (s), Radko Delorco (t), Walter Berry (bs), Vienna Ch. Choir and Vienna Nat. Op. Orch., Henry Swoboda, cond. Concert Hall CHS 1135. 12-in. 54 min. \$5.95.

EGMONT (INCIDENTAL MUSIC TO GOETHE'S TRAGEDY), OP. 84 (2 Editions)

Separate recordings of the Overture are noted under Overtures.

Concert Hall's version of all ten numbers was available only as part of an annual subscription. Those who have it are advised to keep it. It will never win a Grand Prix du Disque, but it is superior to its competitor in most particulars. The new Vox changes characteristics drastically between sides, effecting improvement, but pointing the deficiency of the first, over-bassed and obscure, as no critic could. Side 2 has better detail but needs bass, and the hearer who supplies it gets rumble too. Mr. Reinhardt conducts a very easy-going orchestra ably, and Miss Nentwig has spirit if little vocal quality. The Narrator supplies a peroration omitted by the Goehr version, not to the Narrator's credit. Very disappointing in sum.

-*Winterthur Orch. with Margit Flury (s), Walter Goehr, cond. Concert Hall E-7 (limited edition). 12-in. 39 min. --Pro Musica Orch., Stuttgart, with Käthe Nentwig (s), Rolf Reinhardt, cond. Vox PL 7640. 12-in. 39 min. \$5.95.

ELEGIAC SONG, OP. 118 (1 Edition) —*The Randolph Singers with the Guilet Quartet. Concert Hall CHS 1084. Two 12in. (with Haydn. The Seven Last Words). 6 min. \$11.90.

FANTASY FOR PIANO, CHORUS AND OR-CHESTRA, IN C MINOR, OP. 80 (2 Editions) One direct representation is very much like the other. There is a superior orchestral definess in the Vox recording, but a slightly clearer orchestral sound in the Regent. The latter interrupts the music to change sides, and offers no printed text, Vox supplying this in German and English. Piano and chorus are well displayed on both disks. —Heinrich Schmidt, Unspecified Chorus and Berlin Radio Orch., Franz Kerstaad, cond.

Regent 5022. 10-in. 20 min. \$3.00. —*Friedrich Wuehrer, Akademie Ch. Choir and Vienna Sym. Orch., Clemens Krauss, cond. Vox PL 6480. 12-in. (with Schubers: Gesang der Geister über den Wassern). 20 min. \$5.95.

FIDELIO, OP. 72 (2 Editions)

The various recordings of the four overtures to Beethoven's opera are described under Overtures.

The complete Fidelio by Oceanic was mentioned with distaste in the original Beethoven discography. That interpretation is of low order. Fidelio, devotional music and evangelistic melodrama, leans toward burlesque when there are serious deficiencies in its presentation.

The performance conducted by Karl Böhm on the new Vox edition is dominated from the beginning by the conductor's determination to build the drama inexorably to its true conclusion at the liberating trumpet calls, the final scene treated as an exalted pious epilogue stipulating a moral, a full-voiced symbolic abstraction, as the very effective libretto and Beethoven's genius dictate. Singers and orchestra are maintained within a long crescendo of excitement whose mounting curve must not be disarranged out of proportion to the plan even for such moments as Pizarro's 'Ha! welch'ein Augenblick!" and Leonora's massive vocal symphony "Abscheulicher! . . . Komm Hoffnung The orchestra is alert and excellent, nervous and responsive, forming the basis for an ideal realization; and the singers, ftom Leonora to One Prisoner, without exception sing well. Indeed Mme. Konetzni and Mr. Ralf are revelations, Mr. Alsen is bluffly excellent and Mr. Schoeffler exactly what we should expect from his high abilities. The chorus is splendid. Mme. Seefried requires some time to warm up: if she disappoints at first it is because we have learned to expect much of her always.

In short, a Fidelio in magisterial presentation by its players. And a Fidelio endisked with a fatuous and infuriating ineptitude, a casual and complacent clumsiness for which there can be no excuse, no forgiveness and no lasting rage; for the fellows who en-

Continued on page 72


Mario del Monaco

"The voice is a phenomenal one and the use of it is in the great tradition." *E.M.G. Review;* London

"One is reminded of the great Caruso."

Peter Hugh Reed; American Record Guide

"It would be faalish to deny the monly strength of his singing; the unflogging vigor with which he goes through a role." Irving Kolodin; Saturday Review

"A tenor of real consequence. I have judged him against the highest standards. It would be impossible to imagine any other tenor attempting this repertoire to greater success." The Gramophone; London

This is the voice that thrills you in the film "The Young Caruso".

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AIDA

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LS-670*



Tosca—Recondita Armonia (Puccini) Tosca—E lucevan le stelle (Puccini) Girl of the Golden West—Ch'ella mi creda (Puccini) Manon Lescaut—Pazzo son, quardate (Puccini) Turandot—Non piangere Liu (Puccini) Traviata—De miei bollenti spiriti (Verdi) Luisa Miller—Quando le sere al placido (Verdi) Macbeth—Ah la paterna mano (Verdi)

*with Orchestra of L'Accademia di Santa Cecilia, Rome Conductor: Alberto Erede



BEETHOVEN

Continued from page 70

gineered this, unused to cathedrals but not opposed to them, did not try to destroy the edifice. They merely left the doors and windows opened to the weather, and spat casually upon the altar.

The recording is not bad. It is too unstable to be called good or bad. The sound is often rich, often full, sometimes remarkably effective. It was not planned for disks. It has changes of volume, gross changes, on a single side and between sides. The focus changes from principals to background and back; the characteristic fluctuates; there is microphone flutter and the background of the first record is astonishingly noisy. If the characters shatter our ears at one moment they fade into evanescence the next. The violins, occasionally obstreperous, are corrected by near-suppression . . .

Et caetera. But a pretty wonderful experience can be obtained from these records — risking apoplexy, it is true. No one is advised to buy this *Fidelio*, and no one is advised to forego it, either. It is earnestly hoped that Prof. Böhm will not leave his horsewhip behind when next he sees the recording director.

-Hilde Konetzni (s), Irmgard Seefried (s), Torsten Ralf (t), Peter Klein (t), Paul Schoeffler (bne), Herbert Alsen (bs), Tomislav Neralic (bs), Vienna Nat. Op. Chorus and Vienna Philh. Orch., Karl Böhm, cond. Vox PL 7793. Three 12-in. 2 hr. 15 min. \$18.50.

--*Soloists, Chorus and Orch. of the Mid-German Radio, Leipzig, Gerhard Pflueger, cond. Oceanic 301. Three 12-in. \$18.50.

GELLERT LIEDER, OP. 48 (1 Edition) —*Ralph Herbert, baritone; Frederic Waldman, piano. Allegro AL 88. 10-in. (with Adelaide and 3 Songs). 13 min. \$4.45.

MASS IN C, OP. 86 (1 Edition)

-*Gisela Rathauscher (s), Elfride Hofstaetter (a), Alfred Planyavsky (t), Walter Berry (hs), Akademie Ch. Choir and Vienna Sym. Orch., Rudolf Moralt, cond. Vox PL 6300. 12-in. 51 min. \$5.95.

MISSA SOLEMNIS IN D, OP. 123 (1 Edition) —*Ilona Steingruber (s), Else Schuerhoff (a), Ernest Majkut (t), Otto Weiner (bs), Akademie Chorus and Vienna Sym. Orch., Otto Klemperer, cond. Vox PL 6990. Two 12-in. 1 hr. 12 min. \$11.90.

(The) RUINS OF ATHENS, INCIDENTAL MUSIC TO KOTZEBUE'S EPILOGUE, OP. 113 (1 Edition)

The writer's jingo vaudeville is not worth the music the composer provided to immortalize it. There are an Overture and eight numbers, two — Chorus of Dervishes and Turkish March — infamous in violin transcriptions. A March and Chorus, "Schmückt die Altäre", decidedly noble and moving, was published after some alteration as a separate Op. 114. The record is a typical Goehr production, musical and broad, chary of individual characteristics, an honest statement of the score. Both soloists and the chorus acquit themselves well, and in the main the orchestra. The sound has better timbre than any Concert Hall orchestral disk previously heard here, and reproduction presents no untoward difficulty at the compensator.

-Annie Woudt (s), David Hollestelle (bne), Netherlands Philh. Choir and Orch., Walter Goehr, cond. Concert Hall CHS 1158. 12-in. 37 min. \$5.95.

-*Turkish March only. Concertgebouw Orch., Willem Mengelberg, cond. Capitol P 8078. 12-in. (part of a miscellany). 3 min. \$4.98. SCOTCH AND IRISH SONGS

It was pointed out in Part I that only one song on the two disks is common to both, that the selections have been made here and there from Beethoven's many, many settings, that Miss Traubel's superb instrument is not fit for them, and that Mr. Dyer Bennet's sour little voice is. The accompaniments are very important, and Miss Traubel's are beautifully played.

-*Richard Dyer-Bennet, tenor; Ignace Strasfogel, piano; Stefan Frenkel, violin; Jascha Bernstein, cello. Concert Hall CHC 13. 12-in. 30 min. \$5.45.

-*Helen Traubel, soprano; Coenraad van Bos, piano; John Pennington, violin; C. Warwick-Evans, cello. Columbia ML 2085. 10-in. 30 min. \$4.00.

SONGS

Adelaide and two others are the items common to both disks, which from the abundance of their other matter are hardly in competition. Poell is warm and flexible, singing with a cultivated art of apparent naturalism. He is assisted by accompaniments of real worth and recording of bright vitality.

—Der Wachtelschlag; Adelaide; In questa tomba; Lied aus der Ferne; Tröcknet nicht; Ich liebe dich; Mailied; Der Kuss. Alfred Poell, bass; Victor Graef, piano. Westminster wL 5124. 12-in. (with An die ferne Geliebte). 27 min. \$5.95. —*Adelaide; Mailied: Tröcknet nicht; Herz,

-*Adelaide; Mailied: Tröcknet nicht; Herz, mein Herz. Ralph Herbert, baritone; Frederic Waldman, piano. Allegro AL 88. 10-in. (with Gellert Lieder). 15 min. \$4.45.

Mr. Burke will complete his Beethoven survey in May, dealing with the sonatas and quartets. In the same issue will be Part 1 of his Mozart discography.

HAYDN on microgroove

C. G. BURKE

Part III: Keyboard, Vocal Works; Addenda

SYMPHONIES

(Editions which have been issued since the appearance of the first part of this discography.)

NO. 12, IN E; NO. 23, IN G; NO. 29, IN E; NO. 30, IN C, "Alleluja".

This is the product of an intelligent scrutiny of the recorded repertory. These Symphonies are short panegyrics on pleasure and vivacity, very light, with a dashing exuberance of agreeable inconsequentiality. None has ever been recorded before, and here for the first time four Haydn Symphonies appear on a single disk. They are played with a perfervid energy without deference to nuance, a single-minded drive to a happy and ordained conclusion, that baffles criticism by seeming as right as it is easy. The sound, bright and firm, a little hard, is just about as good as any we have of these small (twenty-five men) orchestras with their special tonal quality.

-Chamber Orch. of the Vienna National Academy of Music, Wilhelm Loibner, cond. Lyrichord LL 36. 12-in. 10, 12, 13, 10 min. \$5.95. NO. 54, IN G; NO. 70, IN D

First recordings, in interpretations remarkable for brilliant and dramatic stylization, score-true, but played to full valuation over an unusual scope of tempos and dynamics. The Symphonies are not great ones (although No. 54 has an imaginative, impatient minuet), but Mr. Swarowsky's leadership makes us regret that he has not been utilized before to illumine with his insight those lesser Haydn symphonies entrusted to lesser Kapellmeister. The sound is outspoken — raw but healthy, strident, not badly, in the violins forte, weak in the horns and excellent elsewhere; better than good as a whole and from *mf* to *pp* fine.

-Chamber Orch. of the Vienna National Academy of Music, Hans Swarowsky, cond. Lyrichord LL 32. 12-in. (with *Mozart:* "Paris" Overture in B Flat). 28, 15 min. \$5.95.

No. 88, IN G

By an unusual and unlikely chance, the seventh and latest LP is the best. It is not so good as we should like it, for the sound is a little cavernous, uncertain in detail and over-solidified although satisfactory and Now on RCA VICTOR records



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Continued from page 72

decidedly no worse than the best of the others. But the beautiful performance resembles that of Fritz Busch in its natural submission to the gracious impositions of a lovely score; and if the Deutsche Grammophon-Decca engineers have not realized the Berlin Philharmonic completely, they have not libeled its quality as the Danish HMV-RCA technicians did for Busch's orchestra. In short, Dr. Furtwängler's is the only excellent statement carried by adequate engineering, and will be the unhesitating choice of Haydnists. However, the conjoined music (reviewed under Schubert) is even more important.

-Berlin Philharmonic Orch., Wilhelm Furtwängler, cond. Decca DX 119. Two 12-in. (with Schubert: Symphony No. 9). 21 min. \$11.70.

Correction — The nickname attached to Symphony No. 39 is "The Fist", not "First" as printed in Part I of this discography.

QUARTETS (addendum)

QUARTET FORM OF THE SEVEN LAST WORDS OF THE SAVIOR ON THE CROSS, OP. 51 The Haydn Society and the Schneider Quartet establish with this remarkable disk an irrefutable justification for duplicating music already in the recorded repertory. From Concert Hall we had a few years back a version by the Guilet Quartet which is pretty good, and later Westminster issued an excellent performance by the Amadeus Quartet. The latter is not easy to overthrow and no one is advised to give it up, but owners are warned that listening to the



Schneiders is to covet their record.

What they have given is an utmost poignancy to phrasing and intonation in an equilibrium of instruments from which almost no slight improper deviation is audible. The viola and second violin are peers. Mr. Schneider is a musician usually sympathetic to retarded tempos, but for the Seven Last Words, with its eight slow movements to be played in all the degrees of very-slowness - grave, lento, largo, adagio - the Quartet have quickened their pace just enough to make the distinctions performable. Above all, they have made a tone beautiful in itself, exceptional in the recording of four stringed instruments; and the engineers, in permitting this, have contrived a cleansed, suspended sound, in short echo and unambiguous timbre.

-Schneider Quartet. Haydn Society HSQ 39. 12-in. 52 min. \$5.95.

VOCAL MUSIC

ARIAS AND SONGS

EIN' MAGD, EIN' DIENERIN; SON PIETOSA; CHI VIVE AMANTE; BERENICE, CHE FAI? SOLO E PENSOSO. (Labeled "Music for Soprano & Orchestra.)

Admiring the informed initiative that put this diversity of beautifully-wrought sentiment upon a disk, everyone will deplore the ineptitude of an execution wherein nothing is right. Miss Hopf's valiant trials have not mastered this music and are trials to us, while Mr. von Zallinger seems hardly to have tried at all, and the sound is both thin and messy.

-Gertraud Hopf, soprano; Vienna Symphony Orch., Meinhard von Zallinger. cond. Haydn Society 2045. 12-in. 11, 4, 6, 15, 8 min. \$5.95.

ENGLISH SONGS (MERMAID'S SONG; SHE Never Told; Spirit's Song; Fidelity; My Mother Bids; Sailor's Song)

The eight songs on this and the two records immediately following include all of the Haydn songs one is likely to hear in the concert hall. Miss Tourel's disk will probably be, and ought to be, the most generally esteemed of the three, not only for the professional assurance of her projection of a mezzo alertly mobile in coloration, but for the impressive accompaniments of Ralph Kirkpatrick on a piano built to simulate those of the composer's later years. This is a mellow and uninsistent instrument with some treble resemblance to the harpsichord. Like Miss Tourel's beautifully in-flected singing, it reproduces with nice realism in this recording. A rare industrial amenity is to be noted here in the loan of Miss Tourel by Columbia to Haydn Society. -Jennie Tourel, mezzo-soprano; Ralph Kirkpatrick, piano. Haydn Society 2051. 12-in. (with Arianna a Nasso). 3, 3, 6, 4, 4, 3 min. \$5.95.

DAS LEBEN IST EIN TRAUM; MERMAID'S SONG; SHE NEVER TOLD; MY MOTHER BIDS; SPIRIT'S SONG.

These are sung with taste and address by a delicate light soprano of natural beauty, but her presentation deserves a more resolute pianist and a stronger sound.

Tii Niemela, soprano; Pentti Koskimies,

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piano. WCFM 10. 12-in. (with Schubert: Seven Lieder). 4, 3, 3, 4, 6 min. \$5.95.

DAS LEBEN IST EIN TRAUM; HELLER BLICK; SHE NEVER TOLD; SAILOR'S SONG.

This is the warmest, the most romantic, record, of Haydn songs, pleasant in the cultured Rogers tenor, overcircumspect in the piano. The sound is rather special scrawny from a restricted phonograph, cutiously real from a flexible, wide-range instrument.

-Earl Rogers, tenor; Emilia Mitrani, piano. Allegro AL 13. 10-in. (with Mozart: Four Songs). 4, 2, 3, 3 min. \$4.45.

CANTATA: ARIANNA A NASSO

Recitative broken by song, and song interspersed with recitative, every line set to its emotional essence without aid from ornamentation or other musical cosmetics, Gluckish and Wagnerian, startling in Haydn; and presented here with a climbing excitement of raw drama. Tourel, the jilted Ariadne in bewilderment, despair, hope and rage, refuses to prettify this depiction of a grim ordeal, and the vivid torment of her somber tones is artistically set off by the unrelenting hard commentary from Mr. Kirkpatrick. A translucent sound is advantageous to the latter's new-old piano and to Miss Tourel's dark resentment; and it may be assumed that this Arianna will remain the standard for a comfortable time. Jennie Tourel, mezzo-soprano; Ralph Kirkpatrick, piano. Haydn Society 2051. 12-in. (with English Songs). 16 min. \$5.95.

MASSES

(We know that Haydn composed at least fourteen Masses, that at least two have been lost, and that a minimum of one was fathered in every decade of his creative life. Past numerations have been cavalierly to chronology, Novello's No. 1 being the "Heiligmesse" composed in 1796, and the Novello No. 12 the Great Organ Mass of thirty years before. But these works, of which eight are in B Flat or C, have been supplied with a confusing superfluity of nicknames in four languages, and require the simplifying designation of numbers. Here - perhaps arbitrarily, for it has been assumed that Nos. 2 and 3 are the lost ones - numbers have been applied in the presumptive chronological order, to serve the needs of this listing. Where two nicknames of the same Mass have become popular, both are listed.)

NO. 1, IN F, (MISSA BREVIS FOR TWO SOPRANOS).

A touching innocence characterizes this sweet little devorion (scored for two solo sopranos, chorus, organ and strings) by a hoy of seventeen who was teaching himself the way to immortality. It is the earliest piece of music we have of him. The performance is unpretentious but spirited, conforming to the gentle requirements of the score; and the sound, healthy in a fresh outwardness, is better than commendable. —Hedda Heusser, Anni Berger, sopranos; Akademie Choir and Chamber Orch. of the Vienna Symphony, Hans Gillesberger, cond. Lyrichord 11 30. 12-in. (with Mass No. 5). 13 min. \$5.95.

NO. 4, IN E FLAT, (MISSA IN HONOREM BEATISSIMAE VIRGINIS MARIAE; GREAT ORGAN MASS).

Festive and fragrant, light and sometimes wistful, the Great Organ Mass felicitates the Mother of Jesus as the happiest of women. Men are not at one theologically, and Haydn has been teproached for his cheerfulness. The performance and recording are both above all sturdy, with particular credit to soloists and chorus. A more animated beat would have been welcome, and some excess of reverberation blunts the polyphony. Otherwise the sound is voluminous and unforced, pleasantly pervasive, and easy for most apparatus.

-Elisabeth Roon (s), Hilde Rössl-Majdan

(a), Waldemar Kmentt (t), Walter Berry (bs); Akademie Choir and Vienna Symphony Orch., Ferdinand Grossmann, cond. Vox PL 7020. 12-in. 41 min. \$5.95.

NO. 5, IN B FLAT, (MISSA BREVIS ST. JOAN-NIS DE DEO; LITTLE ORGAN MASS).

This is the most immediately lovely and the most obviously devout of Haydn's Masses. Dr. Gillesberger's emphatic talent for devotional music is again emphasized in a radiantly lyrical interpretation borne by a clean and spacious sound. Definitely a record not to be overlooked by Haydnists. —Hedda Heusser, soptano; Akademie Choir and Chamber Orch. of the Vienna Sym-

phony, Hans Gillesberger, cond. Lyrichord LL 30. 12-in. (with Mass No. 1). 19 min. \$5.95.

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NATURAL

BALANCE

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LONG PLAYING RECORDS

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NO. 7, IN C, (MISSA ST. CAECILIAE).

The great length of Haydn's longest Mass and its assertive operaticism are deterrents to frequent performance. The deliberate establishment of melodrama and pathos in reciprocal opposition, the theatrical solo embellishments and the martial exhortations of trumpets and drums are discomfiting to contemporary concepts of divine service. The musical excitement is undeniable, and the recorded performance is as completely realized as any of a Haydn Mass. The chorus is exceptionally well drilled and the soloists are in high form. The orchestra spreads some chords, but the fault is venial in view of a general spirited competence. The exactions of Dr. Gillesberger attest that this was no impromptu recording: the dynamic sweep is vety wide, the balances carefully adjusted, the tempos alive and immediately responsive to change.

The engineers have traced an outright and very effective sound quite without polish. Close, with little echo, the restatement makes a concentrated and vivid impact. There are some minute clumsinesses, such as the premature stifling of closing cadences, not to be weighed against the truly grand outbursts of the tuttis, realized from top to bottom. Undeniably there is roughness, but it does not seem hurtful to rapture.

-Rosl Schwaiger (s), Sieglinde Wagner (a), Herbert Handt (t), Walter Berry (bs); Akademie Choir and Vienna Symphony Orch., Hans Gillesberger, cond. Haydn Society 2028. Two 12-in. 1 hr. 15 min. \$11.90.

NO. 8, IN C, (MISSA CELLENSIS; MARIA-ZELLERMESSE)

The C Major exultations interspersed with more conventional pieties in the minor, woven into a more elaborate counterpoint than Haydn had attempted up to his fiftieth year, melodramatic and commanding and always interesting, receive a performance from Dr. Gillesberger and his forces essentially not unlike that of the "Cecilia" Mass above. Both the orchestra and especially the chorus are effective, and the sound near, big and brazen, unrefined but real is an emotional assault. The soloists know how to sing this music, although three of them cannot, with theit disappointing voices. Stimulating in sum, a sum that tends to cover the tarnished parts.

-Gisela Rathauscher (s), Auguste Janacek (a), Kutt Equilus (t), Walter Betry (bs); Akademie Choit and Vienna Symphony Orch., Hans Gillesberger, cond. Haydn Society 2011. 12-in. \$5.95.

NO. 9, IN C, (MISSA IN TEMPORE BELLI; KETTLEDRUM MASS)

There is no credible testimony that one great Haydn Mass is greater than another. The beautiful Mass in Wartime competes with all the others, is no more martial than several, and is tenderer than most. Phonographic and interpretational modifications are susceptible to less subjective judgments, and considering those manifested in this recording of this interpretation of this music, we may with decent plausibility urge the disk as that of a Haydn Mass which reincarnates the loftiest experience of the form as the phonograph has presented it in the master's name. A glow of confident devotion seems to emanate from these grooves. Chorus and orchestra are unstrained, unextended by the conductor usually so forceful in church music, here aware that the latent power of the Mass needs no underlining. The fire is not less intense for being concentrated and controlled.

The soloists are good, and include a soprano of appealing purity; and these voices are not placed to dominate the choir. The sound, as an independent factor, is of a sort resistant to verbal description in that it offers nothing really seizing and seems to have no serious faults. It has gloss and seems right: it offers no difficulty to any kind of apparatus. In all, a disk of softly gleaming persuasion.

—Jetti Topitz-Feiler (s), Giorgina Milinkovic (a), Herbert Handt (t), Hans Braun (bs); Akademie Choir and Vienna National Opera Orch., Hans Gillesberger, cond. Haydn Society 2021. 12-in. 48 min. \$5.95.

NO. 10, IN B FLAT, (MISSA ST. BERNARDI DE OFFIDA; HEILIGMESSE)

Mr. Wöldike is an accomplished technician who has worked the involved counterpoint of this "Holy" Mass into a smoothly opulent texture. The performance is above all refined, proportioned, euphonious. It is not Viennese: we lose emotional acuity and gain musical nicety, effects enhanced by the use of beautifully trained sexless sopranos. The sound has been perpetuated with a smart professional competence: it is glib, timbre-true, carefully balanced and equable, with an unusually easy and ingratiating tone from the violins, and thus a coalescence of musical and acoustical concepts.

-Copenhagen Boys' and Men's Choir and Danish Royal Opera Orch., Mogens Wöldike, cond. Haydn Society 2048. 12-in. 40 min. \$5.95.

NO. 11, IN D MINOR, (MISSA SOLEMNIS,

1798; NELSONMESSE; IMPERIAL MASS) A stunningly effective and saliently beautiful Mass in a crudely effective recording of an inexpett interpretation in part redeemed by the singing of Mmes. della Casa and Höngen and Mr. London. The orchestra is slipshod and there is little variety of expression; soloists and violins have too much microphone, inducing fluttet and weakening climaxes; there are oddities of pitch on Side 2. This is an old disk, the Haydn Society's first real success: they and we have learned much since. Doubtless there will be a new recording, and if it is a good one those of us who have enjoyed the present one, while flinching, will receive a new appreciation of the music, and of the marvelous old composer so vital under difficulties.

Lisa della Casa (s), Elisabeth Höngen (a), Horst Taubmann (t), George London (bs); Akademie Choir and Vienna Symphony Orch., Jonathan Sternberg, cond. Haydn Society 2004. 12-in. 44 min. \$5.95.

NO. 12, IN B FLAT, (MISSA SOLEMNIS, 1799; Theresienmesse)

The late-Eighteenth Century galanterie conspicuous in the "Theresa" Mass reminds us that Haydn had become a successful courtier without specific effort for it. He admired graciousness and did not conceive

it invidious to faith. Grace and fluency are notable in the Theresa under the limpid organization of Clemens Krauss. The discipline of the strings, the flexibility of chorus and orchestra, the benevolent but courtly contours, are to be remarked almost at once, along with the beautiful singing of Anny Felbermayer. There is no trifling with propriety; more care is devoted to a symmetrical line than to a dramatic potency. The sound is pretty good although rather achromatic. The winds are not bright, but the violins please, as they rarely do, and reproduction responds easily to a reasonable curve. There is just a suggestion of microphone flutter.

—Anny Felbermayer (s), Dagmar Herrmann (a), Julius Patzak (t), Alfred Poell (bs); Vienna National Opera Chorus and Vienna Symphony Orch., Clemens Krauss, cond. Vox PL 6740. 12-in. 43 min. \$5.95.

NO. 14, IN B FLAT, (MISSA SOLEMNIS, 1802; HARMONIEMESSE; WINDBAND MASS)

There are too many points of disorder in performance and sound to stipulate here. Listening is onerous, and is not recommended.

-Soloists, Chorus and Orch. (Viennese), Alex Larson, cond. Period 541. 12-in. 50 min. \$5.95.

OPERAS

ORFEO ED EURIDICE

The album full of this dramma per musica set, at its issuance in 1951, an amazing precedent: the album was the first performance. The tecords created the première, a hundred and sixty years after composition. Haydn had not been able to produce it in London as he hoped, and only fragments were publicly presented until the Haydn Society, in their most spectacular feat, assembled a true score from parts and put Orfee into disks. The superb temerity and importance of the enterprise have nowhere received an appropriate recognition. Here is a case of a record company acting as entrepreneur of an unknown, unperformed and uncommercial opera, beautiful indeed but sick in its libretto and exalted in sentiment, horribly unfit to compete with the bangaway theatrics of such as Tosca and the Consul. No matter how we examine the fantastic undertaking, it seems like damned poor business, precisely what the world most needs.

Haydn's operas, of which this is the last, are known only to scholars or by repute. Orfeo is a ripe example of Eighteenth Century opera seria on a classical subject, in the grand manner. Action is borne by pungent accompanied recitative, emotion is proclaimed by arias, and the chorus provides significant commentary and takes part in crowd-action. Haydn's lavish use of the chotus yields us a wonderful variety of beautiful and expressive music, and the chorus on these records is drilled to an admirable degree of subtle responsiveness. The orchestra is proficient and well coordinated, giving the desirable effect of completion and depth, for which credit must be given to the engineers. The soloists have in their initial favor superior voices, and to their disadvantage parts of furious Mmes. Hellwig and Heusser difficulty.

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HAYDN

Continued from page 76

are intelligent and vocally quite winning until they confront the baleful goemetry of the most merciless coloratura, for which their voices at this stage are not sufficiently flexible, and wherein they are merely ac-curate and very uncomfortable. Mr. Handt in a high tessitura, legato, is persuasive enough to bear comparison with Schipa at his best, but he is not so good elsewhere, The intimidating although promising. range demanded of Mr. Poell is too much for one man, and his good bass is inviting when low; hard when high.

The hero of what is in sum a good performance is the conductor Hans Swarowsky. Supple, responsive, entire, the undulations of a complicated dramatic melody flow with a smooth confidence we have little right to expect in a first performance virtually without tradition. The orchestra is thorough throughout, and the engineers have helped here in maintaining a proper sound in a recording commendable in spite of some faults: intermittent background noise, microphone flutter at the close of Side 2 and some change in volume from side to side.

Proportioned to the Haydn Society's natural sense of accomplishment, a booklet of nearly a hundred pages, containing historical data, analytical notes, facsimiles of scores, libretto and translation, is presented with the album. According to memory, this is the most elaborate literary supplement ever supplied with a recording.

Herbert Handt (t); Euridice: -Orfeo: Judith Hellwig (s); Guardian Spirit: Hedda Heusser (s); Creonte: Alfred Poell (bs); Pluto: Walter Berry (bs); Chorus and Orch. of the Vienna National Opera, Hans Swarowsky, cond. Haydn Society 2029. Three 12-in. 2 hr. 5 min. \$18.50.

PHILEMON UND BAUCIS

This Singspiel for marionettes is a tender and beguiling pastoral, and we owe thanks to Vox for presenting it in an elegant small frame of sympathetic workmanship. The disk abounds with the sweeter virtues, with no fault greater than an unimportant overprominence of the voices reciting (very clearly) the spoken dialogue. In a consistently meritorious production the discerning and subdued Zallinger direction is neatly apt, and the other-worldly ingratiation of the intangible, high-murmured benefaction of Elisabeth Roon's soprano as the resurrected Narcissa - unsurpassable in Dir der Unschuld Seligkeit - is a small, un. forgetrable and nearly unendurable perfection. — German text without translation, excellent, bright sound; but Miss Roon is rhe irresistible compulsion.

-Susana Naidic (s), Elisabeth Roon (s), Erich Majkut (t), Waldemar Kmennt (t); Vienna National Opera Chorus and Vienna Symphony Orch., Meinhard von Zallinger, cond. Vox PL 7660. 12-in. 58 min. \$5.95.

(LO) SPEZIALE (The APOTHECARY) A recording of this by Magic-Tone is listed in the Schwann catalogue, but Messrs. Magic-Tone have been obdurate to our requests to hear it.



Continued from page 77

ORATORIOS AND MISCELLAN-EOUS CHORAL MUSIC

(Die) JAHRESZEITEN. (The SEASONS.) Haydn's last oratorio and longest work, whose very length has kept music-lovers from hearing it often or complete, a polyphonic paean of cosmic cheerfulness impregnable to criticism in its sophisticated naïvety, and captivating to hearers now as it was in the first year of the Nineteenth Century. The recording by the Haydn Society, a half-success, is damaged by many engineering faults, some obviously obviable in advance, and few tolerable in the light of today's techniques. The soloists are too near a microphone, bad for Mr. Patzak and disastrous for Miss Eipperle, who is simply not so bad as she sounds most of the time here; while Mr. Hann has according to this evidence quite the biggest voice ever heard. There is too much echo, and there is a nearly continuous low-frequency counterpoint. There is pinching at fortes, and the disposal of the forces injures balance.

The performers have done better than the engineers. Prof. Krauss is ever obliging to the unstable exigencies of a score as changing as the seasons themselves, and the large orchestra offers many minutes of felicity when the engineers permit. The

chorus is first-class but frequently sounds faraway. As implied above, the soloists are better than we hear them.

(An injudiciously abridged version on Cetra-Soria, in Italian, conducted by Vittorio Gui with less guile than Clemens Krauss, has not the engineering flaws of the Krauss version although it has others. Still it presents a purer sound of its inferior concept, and very good soloists with Gabriella Gatti lovely.)

-Trude Eipperle (s), Julius Patzak (t), Georg Hann (bs); Vienna National Opera Chorus and Vienna Philharmonic Orch., Clemens Krauss, cond. Haydn Society 2027. Three 12-in. 2 hr. 26 min. \$17.85.

(Die) SCHOEPFUNG. (The CREATION.) Reason must assume that Haydn's most publicized music (he made no greatest work) will not lack a successor to this recording which seemed fair enough three years ago. We have in the Haydn Society edition a performance of some orchestral effectiveness when the orchestra plays alone, and of considerable choral eloquence on the few occasions when the chorus is not blurred. It is also true that Mr. Hann sings well (as through a megaphone). But our recent-day ears are attuned to sounds less crudely organized. Here the senselessly long reverberation obscures and confuses; the soloists are too near a microphone and the chorus is too distant; pitch is erratic and volume is absurdly variable; bass is sullied and treble blatant. The *Creation* deserves better than this, and music-lovers will wait. -Trude Eipperle (s), Friedl Riegler (s),

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Julius Patzak (t), Georg Hann (bs), Alois Pernersdorfer (bs); Vienna National Opera Chorus and Vienna Philharmonic Orch., Clemens Krauss, cond. Haydn Society 2005. Three 12-in. 1 hr. 49 min. \$17.85.

(Die) SIEBEN WORTE DES ERLOESERS AM KREUZE. (The SEVEN WORDS OF THE SAVIOR ON THE CROSS.)

This is the final setting of a tragedy original. ly given to orchestra alone. We know it best in the meanwhile arrangement for string quartet, and music-lovers now have a chance to decide which of the later settings is more moving. Certainly Introduction and Cataclysm are mightier when intrusted to an orchestra as they are in the oratorio (or cantata) form; but the Words themselves are perhaps best understood when wordless.

- The Remington and only edition records a public and exceptional performance of deep devotion and sound musicianship from conductor and voices, and of something less certain from the orchestra, which has a rough string tone and is unfavorably placed in relation to the chorus. The soloists are in good form and the choral singing is remarkable. The engineers have had unuusual success with the mass of voices, which billow sonorously with a powerful cathedral-effect and without opacity. We are enveloped with a sound which is yet analyz. able and corporeal, which arrives with unity although it arrives from everywhere. The sound is German, and the vernacular is more humanly significant than the Vulgate, the homely words more moving than the ceremonial. — Few extrinsic noises for a public performance, and none acute. Bass needs extraordinary reduction, and there are no printed notes, no text. Imperfect, but recommended for its impressive performance and imposing choral sound.

-Hilde Geuden (s), Clara Oschlager (a), Julius Patzak (t), Hans Braun (bne); Cathedral Choir and Mozarteum Orch., Salzburg, Josef Messner, cond. Remington 199-66. Two 12-in. 1 hr. 2 min. \$4.98.

STABAT MATER

In its serene sadness and accumulation of decorous slow movements this suggests church music more than most of Haydn's church music, and its imperturbable length induces that somnolence that men are wont, alas, to feel in churches. Episodically stimulating, but so many episodes! An expert recorded edition is more than fair to its values, benign in interpretation and exact in sound, with Miss Felbermeyer an enticing bait. The etching of the nine violins is startling in realism, to be appreciated even by those who would prefer the more rotund tone of a few more. In fact all collaborators in this edition have been proficient except the composer, who nodded half the time. No one is easier to forgive, and Vox's loving care makes the alert half very listenable. - Although the Stabat Mater is an immutable text, everyone is not necessarily familiar with it, and it should have been printed with the notes.

-Anny Felbermeyer (s), Sieglinde Wagner (a), Waldemar Kmennt (t), Otto Wiener (bs); Akademie Chamber Choir and Chamber Orch. from the Vienna Symphony, Hans Gillesberger, cond. Vox PL 7410. Two 12in. 1 hr. 21 min. \$11.90.



Continued from page 78

KEYBOARD WORKS

ANDANTE CON VARIAZIONI, F MINOR No keyboard music of Haydn's is played more often than this late piece which offers an abundance of subtleties for the pianist to unfathom. We are not blessed in the quality of the two recordings, the Kraus piano belling at the top and blasting lower in the treble, accompanied by a rough surface that seems to be in the master; while Dohnanyi's instrument, truer than that, is over-percussive. Miss Kraus is hardly at her best and offers little enlightenment, and feeble opposition to the Hungarian, whose elegant patterns are alert, protean and rewarding.

-Erno von Dohnanyi. Remington 199-16. 12-in. (with Beethoven: Sonata No. 17 & Andante Favori). 10 min. \$2.49. —Lili Kraus. Decca DX 104. Two 12-in.

(appended to Trios 2, 3 & 5). 16 min. \$11.70.

SONATAS

Haydn composed fifty-two of these, distributing them over the three central decades of his creative life. They sound a great variety of shape and substance, and show in general a growth in mastery like that of the Quartets. Some are little more than five minutes long, and a few are extended influential hints towards Beethovenian romanticism. The clavichord, now dead, which was neither harpsichord nor piano, or the harpsichord, seems to have been the instrument for which the earliest of these works were originally written, and the later ones were unquestionably composed primarily for the piano, on which they sound the best. As usual in Haydn, the Sonatas have been supplied with engaging and irksome numerations in which the last is No. 1. The latest system, now becoming standard, which attempts their numbering by temporal sequence, has been followed here. Most of the records adhere to this, but some utilize older designations.

It must be admitted that the phonograph has not lavished brilliancy on the Haydn Sonatas. The most imposing edition is that of the first ten played by Sylvia Marlowe on the harpsichord, and it is true that a meretricious pleasure issues from this pair of beautifully-engineered disks. But the glow is ephemeral: it is contaminated by a consciousness of pageantry, of quaintness, that we inevitably feel at Miss Marlowe's wide-eyed angular naivety as a kind of National Geographic expositor of a dead or distant civilization wherein everything is just too dear because it is remote. Now Miss Marlowe is a good mechanic of her instrument, and some of these Sonatas are appealing under her hands; but they are living music, and worth more than the roguish, lightsome comment that one directs at a mummy in a museum.

Virginia Pleasants has four disks, also under the auspices of the Haydn Society. This lady is a competent pianist without great dexterity, but with a nice sense of Classic outline and an honest approach to her responsibilities. Her eight Sonatas are well played but played without distinction

Continued on page 80

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Continued from page 79

except in No. 46; and two pairs, the earliest recorded, Nos. 20 and 50, and 48 and 51, exhibit a true piano-sound and are worth having. The other two pairs sound a percussive piano.

Robert Wallenborn is a masculine counterpart to Mrs. Pleasants, adequate and agreeable, but unable to make his insight our realization. His piano has been well recorded by the Haydn Society. His work in No. 32, one of the two duplications, and a spectacular Sonata, seems wonderful after one has heard the rival.

Lili Kraus is a superb pianist of certain periods, who suffered during the recent war and has not been invariably her best self since. She overplays the fine No. 52, but the slighter No. 37 takes her exaggerations easily, in one of the most successful of these Sonatas in recorded performances, the sound of the old disk the richest of the lot.

Charles Rosen, in No. 51, is more fluently responsive than Mrs. Pleasants, and his dynamics have real shading. The engineered piano-sound, more impressive than the Haydn Society's, is not so true in fact, the instruments' differing. His No. 43 is nervously imaginative, brilliant and stimulating. Both are worth the having.

Soulima Stravinsky is unkind to the great names of Haydn and Stravinsky. He plays Nos. 13, 19, 31 and 32 without grace or facility, and the piano has been engineered without bass or lucidity.

Lily Dumont's 35 and 39 are sophisticated, delightful and uninhibited ripplings of calculated but infectious buoyancy. Unluckily the aged recording's weak bass and tinkling treble cannot now satisfy as they did three years ago.

-(Nos. 1-10) Sylvia Marlowe, harpsichord. Haydn Society 3037. Two 12-in. 9, 14, 8, 6, 9, 14, 6, 6, 5, 8 min. \$11.90.

--(Nos. 13, 19, 31 & 32) Soulima Stravinsky, piano. Allegro ALG 3040. 12-in. 8, 13, 5, 10 min. \$5.95. --(Nos. 20 & 50) Virginia Pleasants, piano.

--(Nos. 23 & 32) Robert Wallenborn, piano. Haydn Society 3035. 10-in. 12, 10 min. \$4.75.

---(Nos. 24 & 30) Robert Wallenborn, piano. Haydn Society 3036. 10-in. 11, 13 min. \$4.75.

---(Nos. 35 & 39) Lily Dumont, piano. Concett Hall CHC 18. 12-in. 14, 10 min. \$5.45.

---(Nos. 37 & 52) Lili Kraus, piano. Vox PL 1740. 10-in. 9, 20 min. \$4.75. ---(Nos. 43 & 51) Charles Rosen, piano.

---(Nos. 43 & 51) Charles Rosen, piano. EMS 3. 12-in. (with Nocturne for Ferdinand IV, No. 4). 15, 6 min. \$5.95.

---(Nos. 44 & 45) Virginia Pleasants, piano. Haydn Society 3033. 10-in. 13, 14 min. \$4.75.

---(Nos. 46 & 49) Virginia Pleasants, piano. Haydn Society 3034. 12-in. 17, 19 min. \$5.95.

-(Nos. 48 & 51) Virginia Pleasants, piano. Haydn Society 3032. 10-in. 13, 6 min. \$4.75.

(Two versions of a Sonata for Keyboard and Flute are listed in Schwann, but they avoided this survey.)

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Tested in the Home

The Fisher Amp and Preamp

Yummy!

If amplifiers were women, the Fisher units to be discussed in this article would certainly fall in the category of The Ten Best Dressed — and also, of The Ten Best Undressed. A look at the front of the "Master Audio Control", Fig. 1, shows why it qualifies for one of the Ten Best Dressed: it's simple, efficient, and attractive. On the other hand, the back of the unit, Fig. 2, demonstrates the qualifications for one of the Ten Best Undressed. Further qualifications are to be found inside the chassis, where excellent engineering is made apparent by listening and "meter" tests.

Before we look over the features of this unit, let's clear up this "meter test" business. We adhere to the belief that meters are important, but not as important as ears. Hence, listening tests_are, always paramount in these



Fig. 1. Self-powered preamplifier unit features complete control.

"Tested in the Home" reports. However, meters are useful in determining, for one thing, whether or not a piece of audio equipment will do what it says it will. For instance, if a study of the front panel and the instruction manual indicates that, with controls set in certain positions, a preamplifier-control unit such as the Fisher is going to be down 12 db at 10,000 cycles, then the frequency response should be down this amount. Quick and rather rough checks, with meters, on the Fisher unit indicate that whatever the front panel says will happen, does happen. This is rather more uncommon than one would think. Production-line tolerances for components are such that a specified turnover frequency, for example, of 800 cycles may actually fall well below or above this figure.

With this assurance, let's examine the control features of the Fisher 50-C. Looking at Fig. 1, the knob at the extreme left is the volume control. Depending on the position of the little slide switch, between this knob and the one to its right, this control behaves as an uncompensated volume control or as a compensated loudness control. As a loudness control, both low and high frequencies are boosted when the volume is lowered. Note that some loudness controls boost only the bass. Note also that with the loudness control feature switched off, the volume level is higher than when the compensation circuit is "in". Therefore if the compensation is "in" and the volume level fairly high, care should be exercised in switching the compensation "out" lest eardrums and speaker cones be taken by surprise!

Next in line is the channel selector knob. Suffice it to say that there are five input channels; we shall discuss them in detail when we examine the back of the control unit. In the middle of the front panel are two lever switches which move up and down vertically to adjust for record equalization. Aside from being effective electrically, one of their big advantages is psychological. To the uninitiated, a battery of six or more knobs can be terrifying and incomprehensible. Converting two of the knobs into lever switches of this type makes the front panel of this unit less fearsome.

The left-hand lever switch controls low-frequency turnover, and has four positions: AES, NARTB, LP, and 800. The effect is to balance for the low frequency curve of the recording characteristic as specified at the various switch positions. The right-hand lever switch adjusts high-frequency roll-off or deëmphasis. It, too, has four positions, which effect a treble droop at 10,000 cycles of 0, 8, 12 (AES), and 16 (NARTB) dbs.

To the right of the lever switches are the bass and treble tone controls, and between them, the master on-off switch. There is a pilot light between the two lever switches. The bass control has a range of ± 17 db at 40 cycles; the treble control range is from -15 to +13 db at 10,000 cycles.

Looking at the back of the 50-C, Fig. 2, there can be seen quite an array of inputs, outputs, and level controls. At the left are three auxiliary AC outlets; a nice feature. Along the top are five level controls, one for each input channel; another nice feature; a small thing, perhaps, but it enables optimum adjustment of various sound sources for as near-perfect results as possible.

Below the level controls are seven standard phono plugs.

Fig. 2. Rear of chassis has five input and two output channels.



The two at the left are outputs; one is for connection to the amplifier, the other for recorder input. Tone and volume controls do not effect the recorder output circuit.

The group of five input plugs includes three electrically identical channels for FM tuners and the like. The



Fig. 3. Forty-watt, hi-fi amplifier provides exceptional response.

fourth channel is for magnetic cartridges, and is "loaded" for G-E pickups. If other cartridges are used, such as Pickering or Audak, a loading resistor should be added to secure accurate reproduction of the frequency spectrum. Correct values for loading resistors are given in the instruction manual.

The input plug at the extreme right is a high-gain, flat channel for use with microphones — another good feature. Instructions are given for making two simple wiring changes so that this microphone channel can be converted to a second phonograph input channel, should the user so desire . . . still another feature!

The Fisher 50-C is self-powered, so that it can be used with any existing amplifier or with the Fisher 50-A which it is designed to match. Gain of the unit is sufficient to operate with a low-output cartridge and a low-gain power amplifier.

All around, this is a slick preamplifier-control unit. There are rare occasions when it might be nice to have the tone controls operate on the recording channel, but otherwise we have no suggestions. The list of good features is long indeed.

Price, in the mahogany cabinet shown in Fig. 1, is \$97.50; without cabinet, \$89.50.

The other major piece of audio equipment in the Fisher line is their power amplifier, model 50-A, shown in Fig. 3. This is a fitting companion to the Master Audio Control which we have been discussing. It's a whopper, in weight (!) as well as in performance and power. It weighs 41 pounds and delivers 40 watts with a stated intermodulation distortion of 0.8% — which is something of an achievement. The specified frequency range at 40 watts is 15 to 60,000 cycles within 1 db. The cost, while we are giving specifications, is \$159.50 — which ain't hay, but it's not tops by any means.

It is difficult to say much about this Continued on page 90

The Columbia 360

Last year two young audio experimenters conceived a brilliant notion. They would put together an inexpensive portable phonograph with some pretension to highfidelity, or at least without the glaring faults of the tiny, tinny portables available in radio shops. It would be good enough to serve as "second phonograph" for audiophiles who wanted to take their music on vacation with them or to equip the rumpus room for their youngsters. The two young men began collecting components for a pilot-model and immediately discovered a saddening fact. Someone had beaten them to the idea.

The someone was Columbia Records, Inc., and the Columbia 360 is the result. CRI's publicity department describes it as "high fidelity in a hatbox."

While the fi may not be quite as hi as an elephant's eye, the hatbox description is apt. The 360 measures approximately 17 by 13 by 10 inches. It is a table-model rather than a portable; it can be carried, but the lid doesn't latch, there is no carrying handle, and the record-changer is not screwed down, but is free on its springs. The test-model traveled from Great Barrington to Washing-



Small size. table model all-speed record player has two speakers.

ton, D. C., and back in the trunk of a Henry J., without the slightest ill effect.

The task of designing the 360's innards fell to Dr. Peter Goldmark of CBS, the inventor of the Columbia "Lp" record, and he carried it out cleverly. The whole device is impressively simple and self-explanatory; any service man can find his way around it. The components are conventional, but with a few desirable modifications. The record changer, for instance, is a standard VM Triomatic, but with Columbia's own light-alloy arm. It plays all three speeds and intermixes 10-in. and 12-in. disks. When the last disk is played, the power for the whole machine — amplifier as well as turntable — is turned off automatically.

The cartridge is a ceramic jointly developed by Columbia and the Sonotone Corporation, manufactured by the latter. Its response seems to be as wide or slightly wider than the best crystals available, and it is climate-proof. The mounting of the dual stylus is ingenious. The whole stylus-bar (see picture) is shaped like a camshaft, and removable when stylus renewal is due. It is snugged

into the cartridge by a spring clip. To change from microgroove to standard stylus, the stylus bar flips, not the cartridge. Currently the styli are synthetic sapphire; the future may bring forth diamonds. Tracking pressure is very light, about the same as that of a Columbia LP "attachment."



The amplifier is, of course, a midget. It is rated at 2 watts output, but the output stage

consists of two 3516's, in push-pull arrangement, and there is actually a negative feedback circuit. Considering its tiny power, it is remarkably free from distortion at reasonable small-room listening levels, though no one is likely to mistake it for a Williamson.

It drives two six-inch speakers, which face outward from the sides of the 360. With the lid up, these act like any two small speakers in an open-back enclosure. With the lid down (it has a felt edge), they have a reasonably air-tight enclosure to work in. The enclosure is firm, since the whole box is made of half-inch and three-quarterinch plywood. The range of the 360 is supposed to be from 50 to 12,000 cps. Whatever portion of this response is "useful," as the trade-claims phrase it, the lows on the 360 are very much cleaner than those from the average open-backed TV-radio-phonograph, and extended treble range is certainly present. To the enormous majority of Americans who have never heard anything above 5,000 cps. reproduced in their living rooms, this tidy little gadget is going to be a revelation.

The 360 has two control knobs, both of which serve to attenuate the treble. One is the traditional "Tone Control," the other is marked "Volume" but is, believe it or not, a loudness-control, to the extent that trebledroop is automatically increased as the volume goes down, leaving the bass fairly full. It works quite well.

The list-price of the 360 is \$139.50 (in walnut or mahogany) or \$144.50 (limed oak or blonde mahogany). It is sold mostly in record shops, and demand, apparently, has been large and immediate. This will break a lot of new ground for the audio trade and art. Columbia is to be commended. -J. M. C.

The Pilot Line

The group of equipment manufactured by Pilot Radio Corporation includes, for the purposes of this discussion, three units: an FM-AM tuner, a preamplifier-control unit, and an amplifier.

The AA-901 amplifier is a power amplifier, without controls of any sort other than an on-off switch. It is shown at the left in Fig. 1. It follows the Williamsontype circuit and uses two 6SN7 and two KT-66 tubes, plus a 5U4 rectifier. Components such as transformers are of high quality; results are on a par with other Williamson-type power amplifiers in the same price range.

Reading from left to right in Fig. 1, there is the line cord, a fuse holder, the on-off switch mentioned above, screw-terminal speaker connections providing output impedances of 8 and 16 ohms, a power take-off socket for use with the Pilot preamplifier, an audio input plug of standard type, and a removable cover plate which provides access to tube balancing connections.

The on-off switch is interconnected with wiring to the power take-off socket. When the amplifier is used with the tuner, its AC line cord is plugged into the tuner, and the switch left on; the tuner controls the amplifier. When used with the preamplifier, the amplifier's line cord is plugged into the 110-volt outlet, but the switch is turned off; the preamplifier (which gets all its power from the amplifier) then controls the amplifier. Sounds complicated, but it works.

The preamplifier-control unit, model PA-911, is at the right in Fig. 1. It is designed specifically for use with the AA-901 amplifier, as can be seen from the fact that it derives its power from the amplifier. Presumably, the home constructor could build a separate power supply for the preamp, but its power requirements are not stated in the instruction manual which accompanies the unit. Thus, the average audiophile, in comparing this equipment with other units, should consider the cost of the amplifier and preamplifier together.

The PA-911 preamplifier-control unit incorporates some novel and worthwhile features; it also has some shortcomings. The most novel feature is a separate microphone input channel which has its own volume control and which can be blended with the sound from any one other channel. The two volume controls operate independently of one another. For instance, assume you are recording on tape. Program material might be an offthe-air broadcast, but you want to insert your own announcements over the background of the music. With the microphone plugged in, you can keep its volume control down until you are ready to insert your announcement. Then you turn down the master volume control, which has been regulating the loudness of the radio program, turn up the microphone volume control, make the announcement, and fade the music back in again. Particularly for the home recording enthusiast, this is a neat feature - and in view of the amount of recording going on these days, this is a feature to be recommended highly.



Fig. 1. At the left. the Williamson-type amplifier; preamplifier-control unit at the right.

The shortcoming here is a very minor one: we think that, in view of the advantage of this microphone feature, it would have been nice to have had a separate tape output on the preamp. True enough, most tape machines can be set up so that recording and monitoring can be done simultaneously, but this is more easily accomplished when a separate tape output, not affected by the master volume control, is provided. This way, monitor volume and record volume can be adjusted independently.

In addition to this microphone input channel, there are four other channels: three medium-gain channels labelled AUXILIARY, TV, and RADIO, and a PHONO channel. There are three connections to the phono input channel, to provide match for such cartridges as G-E (15,000 ohms), Audak (27,000 ohms) and Pickering (47,000 ohms).

In Fig. 1, the controls on the preamplifier are as follows: microphone level at the extreme left; next is the selector switch, with the three medium-gain channels at 9, 10, and 11 o'clock, and three phono equalization positions at 1, 2, and 3 o'clock. The equalization positions match AES, NAB, and foreign recordings. In the center is the volume control, then comes the treble control and, finally, at the extreme right, the bass tone control, with which is incorporated the on-off switch. A pilot light is located directly above the volume control.

Tone control range is stated to be 12 db boost and 12 db attenuation, but the frequency at which these figures apply is not given. A rough check at 40 cycles seems to



Fig. 3. Rear of tuner showing input and output connections.

indicate that the range at this frequency is greater than 12 db up and down. Matching to AES and NAB curves is quite close, certainly close enough so that any deviations can be counterbalanced by adjustment of the tone controls.

Gain with a Pickering cartridge is more than adequate. With a low-output cartridge such as the Audak or Fairchild, gain was not quite enough to overcome an inefficient speaker system. A Fairchild plus a high-

efficiency speaker filled an average room nicely and adequately, but an Audak plus an inefficient speaker did not provide sufficient volume.

When the purchaser of the PA-911 preamplifier looks at the back of the unit, either he will swear loudly, or not notice anything peculiar. It all depends on whether his tool kit includes a Philips-head screwdriver. Over the back of the case (which encloses the chassis proper)



Fig. 2. AM-FM tuner includes phono preamplifier and all controls.

is a perforated-metal cover, held in place by Philipshead screws. If a screwdriver capable of coping with these double-slotted screws is not at hand, the first impression of the Pilot preamp is bad, because a trip to the hardware store is required. However, once inside, there is an array of standard phono input plugs for the various channels described previously, the heavy interconnecting cable which goes to the amplifier, and an output plug. Use of the cover plate will neaten up the appearance of the unit if it is to be left exposed to view.

Any general conclusion about this unit must take into consideration its price: \$29.95 net. This, as anyone who has shopped the catalogues will know, is a low price for a preamp-control unit which performs all the functions accomplished by the Pilot. From \$75 to over \$100 is a more customary figure. Thus, at its price, the Pilot is a good buy.

Now for the tuner — last but not least. It is shown in Fig. 2 from the front, and from the back in Fig. 3. It's a ratio detector FM-AM model, selling for \$99.95, with several interesting features. Looking at *Continued on page* 90

The Permoflux CH-16 Cabinet

It was not many years ago that separate cabinets for loudspeakers were almost non-existent. The hi-fi enthusiast, even as late as 1947, just about had to build his own. Today, there are so many styles, designs, and sizes that a choice is most difficult to make. Corner designs alone range in size from babies barely a foot high to great-grandpas which stand five and six feet tall. In between — well, for one good example, there's the Permoflux CH-16, which stands $31\frac{1}{2}$ ins. tall.

An interesting feature of this enclosure is that it is designed to be used either with a pair of 8-in. speakers or a single 12-in. unit. It is, therefore, supplied with two speaker mounting boards with all holes precut for either arrangement of loudspeakers. The normal speaker complement is a pair of Permoflux 8-in. units such as their model 8T-8-1 or the improved 8UP-8-1. The latter carries a list price of \$30.00, compared with a list of \$22.50 for the 8T-8-1, but it has a heavier magnet, can handle more power, and sounds — worth the difference.

There is a school of thought among audiophiles which believes that what might be called a "sound wall" effect should be achieved, by the use of multiple speakers. A neighbor of ours has 108 speakers in his sound wall; be it said the effect is indeed wondrous. The sound wall school is opposed by the "point source" school — and the argument will, no doubt, rage merrily until all but the youngest HIGH FIDELITY readers are in their graves. In cidentally, this principle of the sound <u>Continued on page 92</u>

Cabinet designed for use with either one 12 or two 8-in. speakers.



The Bell 2200 Amplifier

The number of amplifiers in the \$50 class is legion; the number in the \$100 to \$300 group is also more than enough to make selection difficult. However, the audio catalogues do not list many well-rounded amplifiers for \$100. By well-rounded, we mean amplifiers which include separate bass and treble controls plus a record equalization control. That is why there has been so much interest in the Bell 2200, which sells (net) for just under \$100. It was introduced not too long ago and rounds out the Bell line, which now includes the well-known 2122 at a shade less than \$50 and the 2145 — a remote control arrangement — which sells for about \$175. With these three units, Bell can fit almost any budget.

The purchaser of this amplifier will get his money's worth. It has good, clean sound, a little heavy on the



Fig. 1. Flexibility of controls features this one-chassis amplifier.

bass — but that may be an advantage if the speaker system is inefficient at the extreme lows (as many are), and it has a great flexibility of control and application. Let's do a run-through on these points.

Fig. 1 shows the front of the amplifier. At the extreme left is the record equalizer control. It has five positions, which are marked in turnover cycles and attenuation db's around the top and interpreted in terms of AES, NAB, and so forth below the knob. The five positions provide for the following ranges of equalization, turnover cycles being listed first, db of attenuation at 10,000 cycles second: 400 and -12; 600 and -14; 500 and flat; 250 and flat; and 400 and -5. These five combinations should be sufficient to compensate for almost any conceivable recording characteristic, but further balance and adjustment is made possible through the two tone controls (knobs four and five, from the left) which are specified as giving a control range of from -17 db to +15 db at 40 cycles, and from -28 db to +18 db at 15,000 cycles.

Continuing across the front of the chassis, the second knob from the left is the input selector. Here again there



Fig. 2. Six input connections increase usefulness of this amplifier.

are five positions: TV, MAG, RADIO, CRYSTAL, and TAPE. These are self-explanatory. TV, radio, and tape are electrically identical. The MAG or phono position ties in with high and low gain magnetic cartridge input connections on the rear of the chassis. It also connects with a microphone input channel. The input plug is located directly behind the 12SC7 tube, at the extreme left in Fig. 1. The reader should be able to see a small black button between this tube and the one to its right in Fig. 1. This is a slide switch which, when in the microphone position, disconnects the phono inputs and the record equalization circuits to provide high gain, flat amplification for a microphone. We heartily approve of microphone input channels; more and more audiophiles use microphones in connection with recording, particularly, and providing a high gain, flat channel will be most useful. We wish the control could have been made more accessible, but we suppose that for less than \$100 one can't expect to have absolutely everything! It's good to have that channel at all.

The next control in the line is the volume control, which is compensated to boost low frequencies at low volume levels. The compensation begins to drop out at 30% on, or about the 11 o'clock position of the knob. This is another good feature of the Bell 2200 but it may necessitate reducing the output of high-output cartridges so that the volume control "clears" the compensation part of its range for really loud playing. With TV and FM or AM tuners, there is seldom any problem on this score, because most of them incorporate their own volume controls which can be adjusted to best level and then left alone.

Continuing across the front panel, there is the bass, and then the treble, tone control; their ranges have already been specified. The final knob at the extreme right is simply an on-off switch. There is no pilot light on the Bell 2200; it is available as an accessory to be plugged into a socket on the top of the chassis, located between the tube and the capacitor can at the left in Fig. 2.

Before we leave the front panel, it should be noted that the knobs and front panel are easily removable. Extension shafts are available from the manufacturer so that panel and knobs may be mounted at a distance from the chassis proper, for convenience of installation in cabinets made of thick wood. Now let's turn the chassis around and see what features are on the back — Fig. 2. Line cord and fuse at the extreme left. Then, three AC outlets, controlled by the switch on the front of the chassis. Thank you, Mr. Bell — that was thoughtful, and most audiophiles will find those extra outlets really useful.

Just about in the middle are the speaker connections, to match 4, 8, and 16 ohm voice coils. Between the speaker connections and the input plugs, near the bottom of the chassis, there is a button-like affair which snaps out to permit access to the tube balancing control, should it be necessary to change output tubes.

At the extreme right are six input plugs. They tie up to the selector switch on the front. The pair at the left are tape and TV; the middle pair are radio and crystal; the right-hand pair are MAG 1 and MAG 2. MAG 1 is a low-gain input for high output cartridges such as the Pickering: MAG 2 is for low-output cartridges such as the G-E and Audak.

Tube complement of the 2200 is: 12SC7, two 6SL7's, 6SN7, two 5881's, and a 5U4 rectifier. -C. F.

The G-E Compensator

The ways of the General Electric Company are sometimes wondrous slow, but when the wheels finally start turning and a new product appears, the product is good. Both characteristics — the slowness and the goodness — apply to the G-E A1-900 record compensator, announced last Fall at the Audio Fair in New York.

If we judge time and age by hi-fi industry standards, the General Electric magnetic or reluctance cartridge¹ is



Record equalization control.

a real oldster. Because it required a preamplifier, G-E brought out two simple and relatively effective units, one being selfpowered, the other taking its power from the main amplifier. The preamps were one-tube affairs which boosted the bass a fixed amount and then left

all other compensation to whatever tone controls might be in the audio system.

Perhaps G-E was idealistic. They may have thought as so many have hoped — that record manufacturers would settle on one recording characteristic. As we all know only too well, dreaming up new recording curves seems to be one of the chief delights of the disk makers. So for a long time there has been a real need for a compensator designed specifically for use with G-E cartridges. One of the radio mail order houses finally designed their own compensator for G-E cartridges. Now, at last, G-E itself has one!

It's simple, like the preamp, and effective. It is intended for use only with G-E standard *Continued on page 94* See HIGH FIDELITY No. 6, page 108 for a description of G-E cartridges.

Kits: Two Heath Meters

For those who are somewhat technically inclined, the availability of a few simple test instruments can open the door to an understanding of the truly amazing things that go on in radio and audio equipment. More than that, they supply definite answers to the reasons for troubles that sometimes develop in the finest installations. Test instruments provide visual information about the things that electric currents do when they shouldn't, and don't do when they should. A simple volt-ohmmeter may return its small cost by locating an open circuit in a power cord when the whole system goes dead an hour before you invited guests for an evening of music. Or, if you need to know which of several resistors to use for loading a pickup cartridge, you can read the resistance right from the meter scale.

As you progress in your knowledge of test instruments, you can check the performance of your amplifier with an intermodulation meter (sounds forbidding, but it's neither too hard to build nor too costly) . . . and so on, almost indefinitely.

For this first in a series of articles, we have chosen for construction two of the most widely useful instruments in a long list: a vacuum tube voltmeter and a sensitive AC meter.

If you haven't worked with radio kits before, it may seem like a long jump from the puddle of parts shown in Fig. 1 to the assembled test instrument shown in Fig. 3. But we have just proved to our own satisfaction that it can be done, by anyone who can solder a couple of wires together, in two evenings of careful work.

The equipment shown on this page is a Heath vacuum tube voltmeter, model v-6, in various states of completion,



Fig. 1. Even a relatively simple kit consists of bundreds of parts.

The kit, as received, is simply unassembled parts. The problem — the challenge, the fun, and the very real satisfaction — is to move from Fig. 1 through Fig. 2, to wind up with Fig. 3, a completed, working instrument.

All necessary parts, from washers to tubes, are included in the package. Also, and most important, there is a very detailed manual which gives step-by-step assembly and wiring instructions. Every move is written out, with a space to check off each "move" as it completed. Every time a wire is run from one spot to another, the manual indicates whether the joint should be soldered at that step or left until additional wires have been run to the same spot. In addition, enlarged pictorial diagrams are furnished. They help to locate parts precisely and indicate how, and where, wires should be run. If the instruc-



Fig. 2. Front and rear views of the vacuum tube voltmeter show that care is needed to assemble each part in exactly the right sequence. This is assured by step-bystep instructions and large pictorial diagrams which locate each component.



tions are followed minutely, making certain that each step is taken exactly as directed, there is almost no chance of going astray.

The scales of this vacuum-tube voltmeter read down to less than 1/10th of a volt. The range goes up to 1,000 volts AC and 1,500 volts DC. Resistances from less than 1 ohm to 1,000 megohms (1 megohm equals 1 million ohms) can be determined. A decibel scale adds to the usefulness of the instrument. Accessories are available which extend the range of the meter to 30,000 volts DC if anyone other than a television serviceman wants to play around with such voltages!

In Figs. 4, 5, and 6 we have a similar problem: to assemble the parts of an AC voltmeter, the Heath model AV-2. To a certain extent, it duplicates the vacuum tube voltmeter, but it is much more sensitive. About the lowest AC voltage which can be read with any accuracy on the VTVM is 1/10th of a volt. The AC voltmeter will read down to less than 5/1000ths of a volt with accuracy. Its top range is 300 volts AC. The AV-2, like the v-6, has a decibel scale.

In audio work, a sensitive AC voltmeter is almost a must. While the output from amplifiers, at the speaker terminals, may run up into a few volts at loud levels, the output from a pickup cartridge, for instance, may be as little as 0.005 volt.

The AC voltmeter is actually a simpler instrument to construct (the wiring is much less complicated) but, to quote from the instruction manual, "this kit is not intended for the novice; the very detailed step-by-step construction found in most Heathkit manuals has been omitted". Nevertheless, we believe the novice *can* as-



Fig. 5. Necessary tools and assembled chassis have been arranged on the pictorial diagram.

Fig. 6. The very sensitive AC voltmeter, reading to five-thousandths of a volt, in completed form.





Fig. 4. Fewer parts are required for the sensitive AC voltmeter,

semble the kit. Large pictorial diagrams are furnished (note the background in Fig. 5) and the wiring is sufficiently uncomplicated so that it can be traced right on the pictorials. Since the step-by-step instructions are omitted, more foresight is needed in planning which part to wire in next and when to solder. For instance, there was a big capacitor in the pile of components which tempted us right from the beginning; to have it wired in would have made such a dent in the pile! But examination of the pictorials showed that there were a lot of resistors and whatnot which were wired under that condenser

and we had to leave it until almost the last.

As can be seen from Fig. 3 and Fig. 6, the VTVM and the AC voltmeter are a matching pair. Each measures $7\frac{1}{16}$ inches by 4 11/16 wide by 4¹/₈ deep. Cost of the v-6 kit is \$24.50 and of the Av-2, \$29.50.

Depending on how experimentally inclined you are, the number of applications for these two instruments is almost Once you have unlimited. built the VTVM, you are quite likely to progress to further construction work: then this instrument comes into its own as a means of determining resistor values (we still find the color coding hard to decipher) and, more important, tracing voltages through the various circuits to be certain everything is operating at optimum conditions. Test equipment is Continued on page 96 almost



ad agency specifies **PRESTO 15-G turntable for client audition room**

When Needham & Grohmann, Inc., prominent New York advertising agency, recently moved to new quarters in Rockefeller Center, plans were drawn up for an attractive, functional audition room. Specifications included a custom built cabinet with a high fidelity sound system, tape recorder, AM radio and ample provision for storing and reproducing transcriptions of all sizes up to 16" in diameter.

After examining various professional turntables, Needham & Grohmann decided on the Presto 15-G as the most compact and accurate unit of its type. And, since ad agencies have budgets too, the modest cost of the 15-G was a further incentive.

As it is in professional circles, the growing interest in high fidelity home installations calls for professional equipment at sensible prices. Built by the same people who supply the nation's largest broadcast stations, the Presto 15-G is a moderately priced, 3-speed turntable designed to meet the most exacting reproduction standards. If you have been shopping for a turntable with real speed accuracy and durability, try a Presto 15-G. It's ideal for custom installation.

Mail this coupon for description, illustration and prices.

DRESTO	Presto Recording Corporation High Fidelity Sales Division Paramus, New Jersey
PARAMUS, NEW JERSEY	Please send full information and prices on your Presto 15-G turntable.
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Protect your investment in new records with the one gram stylus pressure of the Weathers cartridge and arm. You will be amazed at the reduction in stylus wear. A new standard in record reproduction which must be neard to be fully supervised heard to be fully appreciated. characteristic.) Termin The low mass of the Weathers stylus follows every groove undulation perfectly without distorting the groove wall.

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Typical frequency response curve produced with Cook Series 10 Test Record. (Response over 500 cycles compensated to obtain constant velocity characteristic.) Terminals provide compensation based on AES Standard Playback Curve or constant-amplitude response, as preferred

Oscillator

STREET.

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SIMPLE INSTALLATION COMPONENTS

Each cartridge, or cartridge and arm set, includes a Weathers oscillator with pickup cable receptacle and power cable for one 6AT6 tube. Power cable may be connected to user's amplifier (receptacle supplied) or to Weathers W-22 Power Supply, sold separately. The new W-21A oscillator is factory-adjusted with the cartridge and pickup cable in each set and does not ordinarily require further adjustment, even after tube replacement.

CARTRIDGE FOR STANDARD RECORD PLAYERS

The W-202-C Universal Cartridge Set is available for installation in modern record players, manual and automatic, and in standard makes of transcription arms. Stylus pressure may be adjusted to 3 grams or less when installed in a Webster automatic changer or RCA 45 record player. W-202-C Universal Cartridge Set is electrically identical with the W-202 and W-212 Standard Set (used only with the Weathers arm), but the stylus compliance is slightly reduced.



See your distributor or write for literature

FISHER

Continued from page 82

amplifier other than that it sounds beautifully clean, both in soft passages and in the super-fortissimos where its reserve power of 40 or more watts shows up to advantage. It gives the impression of sweetening and cleaning the sound, even through speakers of erratic frequency characteristics. The reason may well be found in the specificarion sheet: the 50-A uses a pair of 1614 output tubes triode-connected plus 20 db of feedback; internal impedance at the 16ohm tap is specified as 0.53 ohms, giving a damping factor of 31.

The physical features are simple: in the right-hand corner of the chassis as seen in Fig. 3 is the input plug (standard type), and behind that is the speaker plug (not standard type; the matching half is provided but some soldering is required); and to the left of that is a master level control. Way over around the left-hand corner is an auxiliary AC outlet. The jack on the left front side of the chassis is for tube matching operations, should one of the 1614's be replaced.

Other than the level adjustment, there are no controls on the 50-A

In conclusion: either of these two units is of the very best. Combine them, and they constitute an audio system which, for about \$250, will be very difficult if not impossible to beat. -C. F.

PILOT

Continued from page 84

Fig. 2 and reading in the customary order, the knobs are: power on-off; volume; treble tone control; selector switch - AM, FM, PH, and TV, interconnected, by the way, with dial lights and two pilot lights, so that the FM or AM scale lights up when in use: bass tone control; tuning; and AFC on-off. For fringe area reception, it's nice to have the AFC switched from the front of the panel.

Looking at the back of the chassis. Fig. 3, we find the line cord at the left, then two 110-volt AC outlets controlled by the master on-off switch; two output plugs, the upper being detector output, the lower being audio amplifier output. Then there is a screw-driver controlled variable resistance which is marked for adjustment to match typical pickup cartridges. Next is a slide switch which cuts the phono preamplifier out or in. Cutting out the preamp with the slide switch equalizes the phono input for crystal cartridges. Finally, at the right edge are two inputs, for TV and phono.

The tuner has some of the features we suggested for the preamplifier unit: the extra AC outlets. and the detector output. The detector output is not affected by tone or volume controls.

The antenna terminal board is in the cen-

BELL

HIGH FIDELITY AMPLIFIERS

SPECIFICATIONS — MODEL 2200

Output: 20 watts at less than .3%. Peak: 35 watts. Frequency Res.: 20 to 20,000 cycles plus or minus 0.2 db.

200K ohms
ZOOK ONMS
l meg.
27K ohms
47K ohms
200K ohms
200K ohms
) meg.

Controls: (6)

Equalizer: 5-position, for all types of records. Selector: 5-position --- TV, mag., radio, crystal, tape. Volume: Continuously variable with compensation. Bass: Minus 17 db to plus 15 db at 40 cycles. Treble: Minus 28 db to plus 18 db at 15K cycles. Power: Rotary "off-on" switch.

Hum Level: 80 db below rated output.

Output Impedances: 4 ohms; 8 ohms; 16 ohms.

Damping Factor: 12.3.

Power Consumption: 150 wotts, 117 volts, 50-60 cycles. Tubes: 1-12SC7; 1-6SN7GTA; 2-6SL7GT; 2-5881; 1-5U4G. Dimensions: 8-¾" deep; 7-‰" high; 16" wide. Net Weight: 24 lbs.

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give sparkling, vibrant life to your recordings

EXPERTS know that satisfactory reproduction of recorded music depends on the flexibility of the amplifier's controls. Bell's Model 2200, with its advanced compensating features, gives you *Audio Magic* control for complete enjoyment! Your records — domestic or foreign, standard or LP — sparkle with new life . . . with a new beauty of thrilling tone.

Five-position equalizer switch affords the ideal method for correcting all variations of recording characteristics. Selected curves can be modified or supplemented by use of the continuously variable bass and treble controls. Volume control is compensated for ideal lowlevel listening.

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A fine quality tone arm that features the new "SLIDE-IN" carbridge holder. It fits any carbridge just a click twist of the thumb screw and the carbridge is scerely held in place. No meet for soldering. Silver plated spring loaded plungers maintain posi-tive electrical contact. The quick act-



CLARKSTAN AUDIO SWEEP FREQUENCY TRANSCRIPTIONS

FREQUENCY TRANSCRIPTIONS An entirely new method of making instanta, neous frequency response runs. Audio Sweep Frequency Transcriptions embody all correc-tion factors in the original recording which eliminates the need for charts and graphs. When used with an oscilloscope, the Audio Sweep Frequency Transcriptions provide an instantaneous response measurement so a few aulek adjustments on a circuit complete the job. Used extensively for testing audio amplifiers, loud speakers, microphones, ac-coustical networks, electrical filter networks, etc. Broadcast engineers can make frequent quick checks of transmission systems and components. Used for production testing, locates distortion. Excettent for labora-tories as well as FM stations, motion pic-ture studio and theatre sound equipment, see vour jobber or write for Bulletin No. 104C, 104C.



CLARKSTAN RV WIDE RANGE PICKUP WITH EASILY **REMOVABLE STYLUS**

This wide range variable reluctance plckup meets the requirements of discerning users and FM specifications. Removable and in-terchangeable styll available with various tip radii for all types records. LP micro-groove. etc. See your jobber or write tor Bulletin No. 141C

larksta

457



ing weight adjustment gives positive and accurate balance plus proper needle force. Meets all requirements for LP records as well as standard speed and groove sizes. Arm made in two sizes, for records up to $12^{\prime\prime}$ and also up to $17^{\prime\prime}$. See your jobber or write for Bulletin No. 172C.

CLARKSTAN AUDIO SWEEP FREQUENCY GENERATOR

FREQUENCY GENERATOR A Clarkstan development for testing the be-havior of audio and other alternating elec-trical apparatus with respect to frequency and associated phenomena. The generator operates in the audio range from 40 cps to 10.000 cps. The complete frequency range is regularly recurrent so that the signal may be used in conjunction with an oscilloscope. The Sweep Frequency is qoverned by 20 synchronizing pulses per second. Where an instantaneous evaluation of the performance of amplifiers at various settings of tone con-trol and pickup correction networks is de-sirer' the Sweep Frequency Generator is ideal. A quick performance check on the following can be accomplished with this product ... wire recorders. film recorders, broadcast and aircraft receivers. motion pic-ture sound equipment. loud speakers. micro-amplifiers and cutting heads. See your job-ber or write for Technical Bulletin No. 157C.



STEADY STATE FREQUENCY RECORDS Clarkstan now offers three new test records which for the first time conform to exact specifications, permitting the user to work in known quantities. The reproduction of these fine test records involves no polishing and employs the very latest techniques which insures exact duplication of the orig-inal recordings in each pressing. Complete specifications of the original recordings recordings furnished. See your jobber or write for Bul-Jetin No. 181C.

PACIFIC TRANSDUCER CORP.

11921 WEST PICO BOULEVARD LOS ANGELES 64, CALIFORNIA



Continued from page 90

ter of the chassis. The two right-hand screw terminals are for an FM dipole; the leftliand terminal is for an AM antenna. Just above the two spare AC outlets is a wire with a spade lug attached. If this is connected to the right-hand FM terminal, the electric line cord becomes an antenna.

With the line cord as an antenna, we were able to get FM stations 30 miles away, although background noise rejection was poor. Results were, of course, vastly improved when a standard FM antenna was used. Stations pounded in, and sensitivity appeared excellent. However, there was slight background noise on strong stations, which was more noticeable on weak stations. Selectivity and frequency response were good. Volume level excellent (on phono as well as radio). AM reception very good, considering that we are located in an area where AM is congenitally poor.

In closing, it should be noted that a tuning eve can be connected to the tuner if it is desired (and it is always a good idea, particularly if AFC is not used); the instructions tell where to connect it, but it would have to he done by an experienced experimenter or a radio serviceman. - C. F.

LOUDSPEAKER

Continued from page 85

wall is not to be confused with that of using two to five speakers to divide up the frequency spectrum; the sound wall theory presumes that several speakers operate in the same frequency range. Using two 8-in. units in the Permoflux CII-16 cabinet is a long way from 108 speakers, but at least some of the same principles apply: better sound diffusion is secured with two 8-in. speakers than with one 12-in. cone and, since it almost never happens that productionline speakers have identical frequency response cutves, variations in one tend to cancel those of another. (It is also possible that the variations will add to one another, which accounts for the bad results sometimes secured with sound wall installations.)

The published tesponse curve of two 80p-8-1 speakers in the CH-16 corner enclosute is flat to within ± 1 db between 100 and 4,000 cycles (which is good) and is down about 5 db at 50 and 8.000 cycles. Listening tests, and very rough meter tests. corroborated this curve. The sound is good, at home levels - and Permoflux emphasizes that the CII-16 is intended for moderately loud listening levels -- dispersion is good, low frequency response good down to the 60 to 80 cycle zone.

The front panel of the CH-16 is held on by four screws in the extreme corners of the grille. To this ornamental front panel is bolted the speaker mounting board and to it, the speakers are bolted. Back of the





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FISHER AUDIO COMPONENTS

Madel 50-A Lab Standard Amplifier. Deluxe olltriode amplifier of the utmost fidelity. Response: \pm 0.5 db, 15-60,000 cps at 40 wotts. Harmonic distortion: .05% at 5 wotts, .08% ot 10 wotts, 0.3% ot 40 wotts. Intermodulotion: 0.4% at 10 wotts, 0.8% at 40 wotts. Hum: better than 92 db below full output. Output impedance: 8, 16 ohms. Chassis size: 8 x 14½ x 9" high. Complete with tubes. For 105-125 v., 50-60 cycles AC. Shpg. wt., 45 lbs. 98-628. Net .

Madel 50-C Master Audia Cantral. For use with amplifier obove or ony other quality amplifier. Inputs: 3—for TV tuner, rodio tuner, tope playback, 1—all magnetic cartridges; 1—high-imp. make. Outputs: 1 for omplifier; 1—for recorder. Response: ± 1 db, 20-20,000 cps. Hormonic distortion: .05% at 5 v., 0.4% ot 15 v. Intermod: 0.2% at 5 v., 1.6% at 15 v. In mahogony cobinet, 15¾ x 4½ x 6¼s'' deep. With tubes. For 105-125 v., 50-60 cycles AC. Shpg. vt., 9 lbs. **98-626.** Net **\$97.50**

ELECTRO-VOICE 4-WAY SPEAKER SYSTEM

The Patrician. Features Klipsch type "K" indirectradiator design for truly magnificent sound realism. Perfectly motched components include: 18WK 18" L-F driver (16-200 cps): 12W-1 L-F driver (200-600 cps); T-25 treble driver (600-3500 cps) exhausting through 6-2X5 cellular horn, SP8 BT 8" super-tweeter augmenting T-10 H-F driver to full-powered 16,000 cps: X-2634-1 4-way crossover (200, 600, 3500 cps). Housed in distinguished custam corner cabinet. All components installed and wired. 60" h, 41" w, 30" d. Shpg. wt., 500 lbs.

CRAFTSMEN 800 FM-AM TUNER

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An outstanding FM-AM Rodia-Phono combination that excels standard type consoles selling at higher prices. Supplied complete—ready for operation. High-fidelity companents include: Pilat FM-AM AF-821 Tuner, Webster-Chicago 3-Speed Changer; Jensen H-222 12" Coaxial Speaker, Grammes 100 BA 10-Watt Amplifier, G. E. Triple-Play Variable Reluctance Cartridge. Beautifully housed in outstanding modern cabinet, with acoustically designed speaker enclosure. Size: 53" w, 32½" h, 18" d. Shpg. wt., 110 lbs.

321/2" h, 18" d. Shpg. wt., 110 105. 98-641. Cordovon Mohogony. 98-642. Blonde. Either Model, Net \$391.50

ALTEC SPEAKERS

820A Carner Speaker System. Altec's finest speaker installation. Response exceptionally flat from 50-16,000 cps; 30 watts power rating; crossover 800 cps; autput matching imp. from 6-12 ahms. System consists of: 821 mahaganv corner cobinet; 802B high frequency unit with H-808 multicellular horn, two 803A 15" low frequency speakers and N-800D dividing network. Cobinet 473/g" h, 421/a" w, 29" d. Shpg. wt, 230 lbs. 95-048. Net

604C 15" Caaxial Speaker. Flot response from 30-20,000 cps. Hos 15" cone for low frequencies; 6-cell high-frequency tweeter coaxially mounted far 60° hor., 40° vert. distribution. With N-1600A crossover network. Ratings: 50 watts pok, 35 watts continuous. Voice coil imp., 16 ohms. Depth, 11½". Shpg. wt., 57 lbs. 95-057 Net \$156.00

602A 15" Duplex Speaker. 30-20,000 cps response. Has 15" bass cone and caoxiallymounted tweeter. With N-3000A dividing network. Sectionolized horn with 2 x 3 aspect ratio for smooth distribution. Power roting, 20 watts. Shag. wt., 25 lbs. 95-084. Net \$114.00

BROOK 12A4 AMPLIFIER

Consists of Model 12A basic amplifier and Model 4A preamp. Response: ± 0.5 db, 20-30,000 cps at 10 watts. Harmonic distortion: 1.21% of 10 watts. [M: 2.56% at 10 watts. Output imp.: 2, 4, 8, 16, 500 ohms. Amplifier size, 17 x 6% x 81%". Complete with tubes. Shpg. wt., 28 lbs. 98-701. Net \$222.00

Madel 4A Preamp Only. Features new 9-position record compensatar and loudness control. Requires power supply when used with amplifier other than Brack 12A. Complete with tubes. Shg. wt., 10 lbs. 98-702. Net \$109.50

GARRARD RC-80 CHANGER

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Bass reflex speaker enclosures, designed for acoustically correct baffling of the Tannoy speaker, are now available. See and hear them at your Tannoy dealer's.

A FEW DISTRIBUTORSHIPS STILL AVAILABLE TO SELECTED AUDIO DEALERS



LOUDSPEAKER

Continued from page 92

speaker(s) is a chamber, padded with soundabsorbing material like Fibreglas, which tapers down to a horizontal slot at the bottom. The low frequencies can escape through this into a chamber at the back of the cabinet which is open the full height of the cabinet, directly into the corner. Thus the back of the speaker faces a long, tapered air column.

The CH-16 comes in mahogany at a list price of \$124.50, or in avodire blonde at \$143.50. The front panel width is 251/2 ins., and the depth from corner to front is about 16 ins. minimum - depending on the speaker, low frequency response may be a little smoother if the cabinet is moved out from the corner an inch or two.

We tried substituting for the two 8-in. speakers a single 12-in. unit which was nearly twice as expensive as the pair of eight's. As might be expected, power handling capacity was improved and overall sound cleaned up a bit. However, there was a tendency to boom at certain low frequencies, due no doubt to a mismatch between cone resonance frequency and cabinet design. Thus those who are experimentally inclined should proceed with caution - with this enclosure as with any other. Enclo-sures should be designed for a particular speaker, or group of speakers; if substitutions are made, the enclosure may or may not work equally well. - C. F.

COMPENSATOR

Continued from page 86

cartridges² and connects between cartridge and preamplifier input. It greatly improves the flexibility of adjustment in any installation wherein the preamp is fixed - where there is no separate record equalization or compensation control.

The A1-900 compensator, when used with a preamplifier having a turnover frequency of 500 to 700 cycles, provides five degrees of compensation. Position 1 produces the LP playback curve; position 2 gives the AES response characteristics. Position 3 follows the AES curve in the low frequencies, but has no roll-off or de-emphasis of the highs. Positions 4 and 5 also follow the AES curve for the lows, but cut off sharply at about 7500 and 4000 cycles to help eliminate scratch and distortion in the high frequencies. These last two positions are marked "Early 78 – good" and "Early 78 – poor" and that describes their principal uses.

The G-E compensator requires a single mounting hole, and can be used in any panel up to 34-in. thick. - C. F.

²General Electric manufactures a line of modified cartridges which are intended for use by broadcast stations. The AI-900 compensator will not oper-ate satisfactorily with them; the model FA-12B is recommended.



IN Remote Control TELEVISION RECEIVERS with High Fidelity Audio Output

Complete 2-Chassis System Featuring The New 27" Rectangular Picture Tube

For the finest in television picture quality, with the convenience of electronic remote control, enjoy the many features of the Fleetwood. A complete two chassis, full remote control, relevision system, built to professional standards which provides high fidelity audio output to match the finest home music systems.

The separate tuner chassis, with edgelit dial and individual channel pilot lamps, includes off-on, volume, picture channel selection and fine tuning controls. The tuner is of the Super Cascode type, completely adaptable to UHF by simple interchange of strips. UHF provision on tuner dial. Four 1. F. Stages and full 4 megacycle bandpass. Separate cathode followers for audio and video. Two audio outputs: -4 watts for Joudspeaker or high impedance for connection to existing amplifier.

Both Tuner and Picture Chassis attractively finished in gray and black baked lacquer.

ALSO AVAILABLE WITHOUT REMOTE CONTROL-THE FLEETWOOD 610

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FULL FRONT-LOADED CORNER ENCLOSURE

This *true* exponential horn corner enclosure provides exceptionally smooth, well-balanced reproduction over the entire audio spectrum. The response from the rear of the speakers is directed into two separate volumes. It is then used in a unique way to provide continuous loading to well below 35 cycles. The result is a clean, crisp, fundamental base that blends smoothly into clear undistorted highs ...faithfully reproduced by the exclusive Koustical Lens assembly.

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REAR LOADED CORNER - CONSOLE ENCLOSURE This versatile enclosure may be used against a flat wall or in a corner, with either a two-way system or a single, general purpose speaker. A completely enclosed, 6', *true* exponential horn, smoothly curved without sharp corners or cavities, gives full, uniform reproduction of the low frequencies. Used with the Jim Lansing 001 twoway system, the smooth, even highs produced by the Koustical Lens make this a truly outstanding unit.

KITS

Continued from page 88

essential in constructing such units as FM tuners and for balancing output tubes in most amplifiers.

With the AC voltmeter, and one or more frequency test records, the range of interesting and helpful experiments is almost unlimited. For instance, to get best results from hi-fi amplifiers, the input voltage should be within limits usually specified by the manufacturer; input level controls are frequently provided to assure correct adjustment. With a meter connected to the input terminals of the amplifier, it can be determined precisely whether or not the signal is so strong that it will overload the amplifier. With the test records, frequency response characteristics of each piece of equipment in the high fidelity system can be determined. If the test record includes one or more standard playback curves (such as AES or NARTB), record equalization and tone controls can be adjusted to match these curves as perfectly as possible.

The foregoing are but the briefest suggestions of some of the many uses for test equipment. We'll have more in the next article in this series.

In conclusion, we believe it safe to say that anyone who can handle a soldering iron can assemble either of these kits. We know it's safe to say that anyone inexperienced in soldering will be experienced before he finishes the vacuum tube voltmeter: it requires 93 soldered joints! And finally, to protect ourselves, we'd better mention that the Heath Company has a Service Department which, for a nominal charge, will straighten out assembly problems which the kit purchaser finds insurmountable. The challenge, for the beginner, is to see if he can assemble the kit without the aid of the Service Department, which we're pretty sure he can. - C. F.

READERS' FORUM

Continued form page 25

sale of 10-in. capacity records at 12-in.

prices. Your listing of playing time is fine.

Solebury, Pa.

Joseph E. Sandford

Sir:

I am an Associated Press war correspondent here in Japan and Korea, and recently covered the battle for the Kumhwa Ridges, staying with the Second Division of the South Korean Army.

I have no idea who sent for the magazine, or how it got there, but one day at a mail call for the (U. S.) Korean Military Advisory Group, a battered copy of your nextto-the-last issue of 1952 came tumbling out of the mail bag. Its wrapper was gone and there was not a single clue as to who had sent for it.

But being a subscriber (who had already gotten my copy from Tokyo) I felt a momentary flush of kinship to the unknown hi-fi fan in frozen Korea.

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JIM LANSING FOLDED HORN CORNER CONSOLE

An ideal quality system for smaller quarters. A true exponential folded horn has been incorporated to provide effective rear loading for reinforced response to lowest frequencies. Above 150 cycles,

the speaker cone acts as a direct radiotor. Equipped with a Model 130A 15 inch low frequency unit, o Model 175DLH high frequency driver, horn, and Koustical lens assembly, together with a Model N1200 dividing netwark, this efficient two-way system provides sound reproduction for the utmost in listening enjoyment.

Model D-34001M Height 391/2"; Depth 23" (mahogany) \$33150 Front Width 233/4" Model D-34001B (blonde) 33450 Shipping weight 135 lbs.

Other JIM LANSING Units and Systems in Stock.



BROWNING F M TUNER MODEL RV-31

A highly sensitive tuner which requires only 3 microvolts of signal for 20db. quiet-ing. Employs Armstrong circuit with duol cascade limiters and discrimina-tor. AFC oseratian may be cut off with 'an/off' switch. Cathade fallower provides low impedance output minimizing high frequency attenuation and hum p ck up due to long line. Has inputs for Phono, TV and Recorder, with selector switch. Power supply is self-contained. Two outlets on rear of chassis provide a.c. power source for other equipment, controlled by master 'an/off' switch.

Dimensions: 61/2" high, 11" wide, and 9" deep. Complete with tubes...

<u>sgg</u>50



M.I.T. Acoustics Laboratory. Consists of four simultaneously operating cone speakers in a triangular enclosure measuring only 13x19x93/4" deep. Effective frequency response extends from 40 to beyond 10,000 cps. An ideal unit for limited spoce requirements, and for auxiliary speaker installations. Available in mahogany, blond, black. Internal impedance \$**29**95 is 4 ohms, 16 ohms available on order.

WESTERN ELECTRIC 755-A SPEAKER (8" PM)

Provides full frequency range coverage ond wide angle highfrequency distribution. SPECIAL \$2460

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25th ANNIVERSARY

Measuring only 1 3/8 x 4 3/8 x 6 5/8, ond weighing only 2 lbs. 7 ozs., the Minifon is just about the world's smallest sound recording instrument. Records, rewinds, erases, ond plays back through either a pair of stethoscope type earphones or an external amplifier. Capacity 21/2 hours uninterrupted recording. Powered by 11/2 v. A battery, standard 30 v. B battery, and 7 Mollory RM-4Z mercury batteries. An ideal tool for executives, engineers, doctors, and wherever there is need for recording notes, interviews, and other data.

Complete with microphone, stethoscope type earphones, \$250 1 hour spool of wire, tubes, batteries, and instructions. . ----

Morocco Leather Lipper Case	
Transformer-rectifier Unit for operation of motor from	
117 v. AC line	\$20.00

RECORDING WIRE On spools, in dust-proof plastic containers, suitable for mailing

		2 1/2	hour	21.50	
	hour hour		.\$5,00	hour hour	.\$ 9.00 17,90
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A truly fine unit designed for use with 7, 10, and 12-inch records. Four-pole motor with self-aligning oilite bearings, weighted turntable, boll-bearing mounted and rim-driven, provide steady, constant speeds. Molded rubber drives outomatically disengage in 'off' position . . no belts are used. Turntable is rubber-matted and easily kept clean. Tone arm is boll-bearing suspended for maximum compliance, and adjust tacking the set areaus pressure with pood tacking that and adjusts to as little os 3 grams pressure with good tracking. Has automatic muting switch, and automatic shut-off after last record... absolutely jam-proof, and hum-free. Accommodates standard ca tridge pickups.

Model 3/522 - Intermixes 10 and 12-inch records. \$43.29 Model 3/521 - Non-Intermix \$36.30





Affording high quality at moderate cost, the Bogen DB 10-1 is ideal for home installations. Has a built-in pre amplifier for magnetic cartridges with 3-position selector switch. Three additional knobs serve as controls for bass and treble boost and attenuations, and for volume. Frequency response is flat from 30 to 18000 cps within 1 db. Power output is 10 watts (Peck 15 watts) with 3% total harmonic distortion. Output impedances: 4. E and 16 ohms.

Dimensions: 11" wide x 7" deep x 7-5/16" high. Complete with tubes.



\$5445

Leonard Presents . . . A WELL BALANCED SYSTEM!



BOGEN FM-801 FM TUNER

Now . . . the perfect unit for adding FM to an AM system! The Bogen Tuner employs a 3 gang tuning condenser . . . a dual eliminator in a

Foster-Sealey discriminator, and separate AFC circuit that assures easy tuning and absence of drift. Light-edged slide rule dial for quick station selection. Complete FM coverage (88-108 MC) with a frequency response of \pm 1 db 50-15,000 cps. Six micro volts sensitivity make it ideal for fringe areas. Power required: 117 volts, 60 cycle, 50 watt. Size: 20" x 9" x 7"; \$72.22 net weight: 12 lbs. Complete with 8 tubes, 1 rectifier.

BELL 2200 20 WATT AMPLIFIER



Under development for over a year, the Bell 2200 is an extremely versatile and flexible machine. SPEC-IFICATIONS: Frequency response: ± .05 db 20-20,000 cps.; Hum Level: 80 db below.

\$97.31 net

Output impedance: 4, 8, 16 ohms; Controls: 5

position equalizer, 5 position selector, volume, bass, treble, on-off switch; 7 tubes, Power requirement: 117 volts, 50-60 cycle, 150 watts. Size 83/4" x 75/8" x 16". Weight, 24 lbs.

JENSEN H-222 COAXIAL LOUDSPEAKER

Specially designed to bring improved performance to those applications where speaker size is limited to en-closure limitations. A new high in 12" size performance! SPECIFICATIONS: Power output: 25 watts; Frequency range: 32-17,000 cps; Voice coil impedance: 16 ohms; Size: 121/8" x 81/4". Weight: 12 lbs. Complete with H-F balance control. \$46.75 net

ing G. E., Audax, Clarkstan or Pickering cartridges.

GARRARD RC-80

3 SPEED

RECORD

CHANGER

Here's masterful custom performance for 7", 10" or 12" records and 33-1/3, 45 and 78 rpm speeds. Fully automatic including switch-off at end of last record and automatic return of tone arm to rest position. Easily adapted for either 110 V or 220 V current.

Complete with automatic 45 rpm spindle and 2 empty cartridge shells for mount-

\$41.45 net

MM Magnetic turnabout cartridge G. E. RPX-050 mounted in Garrard shell .8.37



CORTLANDT 7-0315

The House Built on Service

READERS' FORUM

Continued from page 96

I can certify that your magazine has penetrated almost to the Korean front line itself - we were a little less than four miles from the Chinese Army at that position and were within actual artillery range of the Reds.

Recently I have been assembling small hi-fi sets for American and Japanese friends here, purely as a hobby and service. The Japanese themselves are just about where we were in 1945 - if that far. Their recording is abominable, but having achieved some recent triumphs in optics, they'll probably catch up in audio, too. If they do, look for some first-rate (and half-price) amplifiers.

I have a modest set myself in my Japanese-style apartment - an Audak Chroinatic Polyphase pickup and arm, a Garrard 205B motor, an Allied Knight Amplifier, a 15-inch Stephens 106A speaker and a corner cabinet modelled after the Cabinarr Kit (Mr. Herbstman of the Cabinart Co. was kind enough to send me sketches).

It isn't the last word that Poinper and Scott wrote about in the November-December issue, but it's pretty good and it sure wows the Japanese.

You have a very fine magazine and I wish you continued success.

John Randolph The Associated Press PIO HQ FEC APO 500 San Francisco

SIR

First of all, I'd like to say that I'm all for a special white label type of recording for hi-fi systems. My system is mostly still on the drawing board and, due to entering college nexr year, will probably remain there for some time. What I have so far consists of a Rek-O-Kut T 12-H transcription table, Pickering 190 arm, Pickering cartridge with sapphire stylus and an H. H. Scott 112-B preamp. The rest is just a standard home variety equipment.

A tape recorder is included in my plans. I am, therefore watching with keen interest the prerecorded tapes being placed on the market. I hope 101/2 reels and 15 ips. will be adopted by more companies.

Have you heard the Mercury Olympian recording of Dvorak's Symphony No. 5? It is the best recording I have ever heard, bar none. Besides low surface noise and full range response, it has a tremendous dynamic range and the tympani sounds as it should. This is the first recording in which the tympani accurately reproduced.

I would like to correspond with some other audio enthusiasts in my area and hope some will write to me.

I would also like to see an article showing the relative merits of commercially available speaker systems, including the Electro-Voice five-way system and Altec's 820A. The Altec 820-A interests me especially.

Cincinnati, Ohio

John R. Truitt



... DO YOU LIKE TO WASTE MONEY?

Obviously not!! Yet we are convinced that not one audiophile in a hundred has successfully assembled the best home music system within reach of his budget. This is no reflection on the intelligence of high-fidelity fans. Far from it! For the problems of selecting wisely among the hundreds of audio components available are very great indeed.

To properly evaluate the merits of every competitive tuner, amplifier, loudspeaker, and cartridge would require:

- 1. A thorough knowledge of audio science. (Not merely electronics)
- 2. A thorough knowledge of music.
- 3. An unusually keen ear, able to detect infinitesmal distortion and slight unevenness of speaker response.
- 4. (`omplete testing equipment. Not the ordinary items found in radio service shops, but expensive distortion analysers, square wave generators, intermodulation and sweep records, and many many more.
- 5. Facilities for side-by-side listening tests on every loudspeaker. These tests must be made at the same time, in the same room, over a *prolonged* period. Performance of an amplifier can sometimes be reduced to statistics, but a loudspeaker cannot, and even a trained ear requires several hours for a truly valid comparison. The untrained ear requires even longer, as many an audiophile has learned to his sorrow, when the speaker which sounded fine on the showroom floor became quite irritating in day to day use at home.
- 6. Time to do all this listening, and research, and testing.

7. Absolute impartiality, with no bias of any kind. If you feel that you qualify in each of these respects, you are probably one of the few who have been able to obtain the best possible high-fidelity value for your money. Otherwise it is not likely. For we know of few places where you might expect to find really sound reliable advice.

High-Fidelity House, however, is an organization which *specializes* in home music systems. We do not handle electronic parts and supplies, nor phonograph records, television, or ordinary radio-phonographs. This specialization has enabled us to devote full time to our primary objective — providing each music-lover with the best possible reproducer at the lowest possible cost. We have gathered together a small select staff, each of whom has a thorough knowledge of both *music and audio*. Together we have tested every worthwhile item of audio equipment made. The results have been truly surprising!!

WE HAVE FOUND THAT MANY OF THE BEST-KNOWN, MOST WIDELY RECOMMENDED, BIGGEST-SELLING UNITS ARE ACTUALLY INFERIOR TO OTHERS COSTING LESS THAN HALF AS MUCH!!

We have found an amplifier at \$100 which is better than others priced above \$200!! We have discovered a loudspeaker under \$50 which is fully equal to a \$90 model. There is another loudspeaker system which we consider better than competitive units costing almost \$200 more!! And we are convinced that the least expensive magnetic cartridge is by far the best, when properly selected.

What do such discoveries mean to you, the music-lover? Obviously they offer a chance to spend less money, and get better reproduction.

FOR OUR TESTS REVEAL THAT THE TRUE QUALITY OF AN AUDIO COMPONENT BEARS LITTLE RELATION TO ITS FAME, OPPORTUNITY, OR EVEN PRICE!!

Recommendations appearing in various books and magazines seem often at variance with our test results. Even a leading consumer research organization appears wrong in almost 40%of their selections. Naturally none of these sources desire intentionally to mislead you. But obviously they lack either the necessary time, or skill, or equipment to do as thorough a job as we who specialize in it.

How then are you to be certain that the equipment you buy is the best for your purpose, and best at the price? Simply by purchasing each item from High-Fidelity House, where every member of the staff is a trained engineer and a true musiclover.

If you live within 200 miles of Los Angeles, we suggest a visit to our showroom; for whether you are contemplating the purchase of a phono cartridge, or an entire reproducing system, we can almost invariably show you how selection of the *proper* unit will lead to a considerable saving in money, and a vast increase in listening pleasure.

If you live too far away to come to High-Fidelity House, the next best course is to send for our catalogue. This contains, in ready-reference form, a detailed analysis of every important item of audio equipment on the market. Not merely specifications, but an explanation of what these specifications will mean to you in terms of musical satisfaction and dollar value. Where is no man or woman alive who knows so much about audio that he will not benefit from the information contained in this publication !! When you send for your copy, please enclose \$1 deposit. This will be credited to your first order. If by any remote chance you are not delighted with the wealth of informative material offered, you may return the catalogue within 10 days, and receive your dollar back. This has never happened yet, for judged by the prices charged for other books on the subject, the High-Fidelity House 1953 Catalogue should sell for \$10 at least! It may be worth far more than that to you if it helps prevent an unwise investment, for buying the wrong speaker or amplifier can be a very costly proposition.

Let us open the catalogue at random to a certain page. Here is described a certain FM-AM tuner which we consider the best on the market. After giving the specifications, we explain exactly why we consider it the best. Then we discuss the well-known tuner we consider second-best. We explain the ways in which it is inferior to the first choice, and the ways in which it is superior. We discuss certain conditions under which it might even be preferred to the first choice model.

On other pages we similarly treat other tuners. And of course there are equally detailed sections on amplifiers, loudspeakers, record changers, cabinets, cartridges, tone arms, turntables, and tape recorders. If our tests indicate errors in manufacturer's specifications we so indicate.

Finally we present a number of recommended High-Fidelity Home Music Systems—balanced systems. each of which provides the best possible reproduction within a certain price range. We discuss just exactly what quality of reproduction to expect. Naturally we know that "packaged systems" have been recommended by others. But many of their recommendations seem based on mere random selection. At least no logical reasons are apparent!!

OUR RECOMMENDATIONS, HOWEVER, ARE BASED ON CAREFUL, COMPLETE, IMPARTIAL SCIENTIFIC TESTS.

Nothing else. High-Fidelity House does not manufacture any products. We are authorized distributors for every leading manufacturer, and thus are *completely unbiased*.

So if you want the most for your money when buying audio equipment, we invite you to come to High-Fidelity House. If for any reason you cannot do so, then send \$1 deposit for our 1953 catalogue. Whatever you do, for your own sake don't purchase any amplifier, speaker, tuner, or cartridge—no matter WHO recommends it—until you have checked with us.

HIGH-FIDELITY HOUSE

536 SOUTH FAIR OAKS, PASADENA 1, CALIFORNIA

ALITY UNDER STRICT CONTROL

TAPE RECORDER



Quality under strict control — that's why Crestwood Tape Recorder is able to offer such high fidelity realism at such a moderate list price. For further information, write us.

Crestwood Recorder Division poughkeepsie, n. y.

READERS' FORUM

Continued from page 98

Sir:

To put it mildly. I am very much distressed at the manner in which (Mr. Fowler) phrased the article ("Tested in the Home" p. 81, The Collins' FM-AM Tuner, January-February). If it is your policy to hold manufacturers up to ridicule by publishing their little mistakes, you certainly are not going to gather their advertising dollars; at least no more of mine.

l would much rather have had nothing written at all than this blasphemous thing. Why in heaven's name couldn't these things be taken up with us rather than the public? W. H. Collins

Westfield, N. J.

We'll still stick to the conclusion stated in the "Tested in the Home" report, to wit:

"Certainly, the man who buys and builds a Collins tuner gets his full money's worth, plus the satisfaction of knowing that he is sufficiently alert and skillful to do a substantial part of the construction himself." — Ed.

SIR:

Your write-up of the FM-AM Collins Tuner is very illuminating. It's the sort of report that really helps us amateurs who have long eyed your ads and wanted to send for a kit or two. But your report confirms what I have suspected: it's not as easy as the ads tell you, even for a knowledgeable chap like you. I congratulate you on your description. So respectable is the writing that no manufacturer can take offense; it certainly tells them what they should have long known: better diagrams, better instruction booklets, more photographs.

Another thing about instruction sheets and diagrams that manufacturers send out: I think that some improvement is called for, unless the manufacturer believes that the amateur should hire an outsider to tie the units together. For this reason I believe the Bell Company deserves praise for its literature about the Bell 2200 Amplifier; a diagram sheet gives clear uses for every plug and outlet in the whole instrument, and it should be an example for other manufacturers to do likewise. As advertising and promotional literature, it is perfect.

New York, N. Y.

Arthur A. Young

SIR:

I had thought that the day was gone when I could become very enthusiastic about any magazine. This is the first time that it has happened for well-nigh onto 20 years.

Have greatly enjoyed the articles about tape recorders in your last two issues and am glad to hear that you plan to include more in later issues. To those of us who





Master Audio Control MODEL 50-C

■ This is the equipment (50-C and 50-A) used to reproduce WQXR's binaural broadcast to the AES Annual Banquet. You can pay considerably more but you cannot buy finer! THE FISHER Master Audio Control can be used with any amplifier. Intermodulation distortion is virtually unmeasurable: complete, professional phonograph equalization settings and tone controls; genuine F-M londness control: 5 inputs and 5 independent input level controls; cathode follower outputs. Finest preamplifier. Self-powered. As shown, 50-C: \$97.50

Chassis only, 50-CH: \$89.50



MODEL 50-A

THE FISHER Laboratory Standard Amplifier is, beyond a shadow of a doubt, the world's finest alltriade amplifier-and yet moderately priced! FEATURES: High output – less than .3% harmonic distortion at 10 watts (.08% at 10 watts.) Intermodulation distortion below .8% at 40 watts. Uniform response within 1 db, 20-20,000 cycles; 1 db, 5 to 100,000 cycles. Hum and noise better than 98 db below full output. Quality components used throughout. Beautiful workmanship. \$159.50

Write for illustrated brochure

FISHER RADIO CORPORATION 45 EAST 47th STREET . NEW YORK ALL-TRIODE AMPLIFIER . MODEL 50-A



WILLIAMSON NEW TYPE Heathkit AMPLIFIER KIT FEATURES Practically distartionless. Harmonic and intermodulation distortion both less than one halt of 1% al 5 walts. Frequency response ± 1 db from 10 cycles to 100 kilocycles. Attec tansing PERLESS or ACROSOLINO transformers available. First Williamson type Amplifier supplied with matching preamphiler.

Attec Lanzing PEERLESS & ACROSOUND transformers available.
 Tist Williamson type Amplifier supplied with matching preamplifier.
 When selecting an amplifier for the heart of a fine high-fidelity audio system, investigate the outstanding advantages for amplifier that meets every high-fidelity audio requirement and makes listening to recorded music a thrilling new stopped to the dust and the selection of sound at all tonal levels. Wide acceptance of the Heathkit williamson type Amplifier by the most critical purchasers of the Attack and the selection of sound at all tonal levels. Wide acceptance of the Heathkit williamson type Amplifier, consult "CONSUMERS RESEARD's and the selection of the Attack and the selection at a selection and the selection at the optional to severe products Company and provides a greater margin of the selection at the attack and the attack and the advantages of the original the optional to the selection of the Attack and the advantages of the original the selection of the selection at the selection at the selection of the selection at the selectis at the selection at the selection at the selection at the s



HIGH FIDELITY

HEATH COMPANY

BENTON HARBOR 8, MICH.

"EAR LEVEL" SOUND THROUGHOUT THE ROOM!



LOWELL

flush mounting ceiling Speaker Baffles "with floating conical action"

Lowell aluminum speaker battles are designed and engineered to meet the most difficult acoustical requirements. They assure 360° diffusion of controlled, undistorted sound throughout entire tonal range. The conical diffuser is mounted through soft rubber grommets to eliminate metallic resonance. Modern, functional styling and ease of installation, in addition to their high fidelity performance, make Lowell speaker baffles popular. Lowell AL Series baffles available in six models for 6" to 15" speakers.

Ask your Sound Dealer abour Lowell speaker baffles, or, write for complete details (enclosing a dimensioned sketch of your music room), to

LOWELL MANUFACTURING CO. 3030 Laclede Station Road, St. Louis 17, Missouri In Canada: Atlas Radio Corp., Ltd., 560 King St., West, Toronto, Ontario



FAS Air-Coupler for Bass Reinforcement

Good News . . . The Dual Air-Coupler for bass reinforcement is in stock, ready for delivery. This is the improved model described in Radio Communi-cation last October, and in the Winter Edition of High Fidelity.

As more and more of the most critical audio experts install Air-Couplers in As more and more of the most critical audio experis install Air-Soupiers in extended-range systems, reports of remarkable performance continue to pour in. One of the most enthusiastic owners is Paul deMars, former chief engineer of the Yankee Network, and a pioneer in high-quality reproduction. He said: "I have never heard such magnificent tone from records and live-talent FM as I am getting from my Air-Coupler in combination with a dual speaker for intermediate and treble frequencies."

For your convenience . . . the Air-Coupler is available in both knock-down form, so that you can assemble it with a screwdriver, or completely assembled, ready to mount the speaker. Made entirely of first-quality 34-in. plywood, with each piece cut to precision fit.

- DUAL AIR-COUPLER, IN KNOCK-DOWN FORM ..now only \$34.50 Every part is furnished, including the screws. Illustration shows assem-bled Air-Coupler, before front panel is mounted. Opening is cut for any 12-in. speaker, the recommended size.
- MISCELLANY: we carry in stock . . . Altec 600-B 12-in. speaker for the Air-Coupler, \$46.50; Peerless S-230Q output transformer, \$26.00; Peerless R-560A power transformer, \$16.00; Peerless C-455A power choke, \$10.00; English KT-66 output tube, \$4.95; Racon CHU2 tweeter, \$23.10.

Crossover **Networks** for Any System of **Two or More** Loudspeakers

By a judicious selection of associated components, the three coil sizes on which G.A. has standardized enable our customers to secure low-cost crossover networks which will operate at 14 different cross-over frequencies! For the experimenter, that means a wide range of choice without having to break the bank to buy dozens of coils. For the man who wants to install his system once and for all, it means money saved, because G.A. saves money by making only three coil sizes (10.2, 5.1, and 1.6 Mh) — and it passes on those savings direct to its customers.

Mh) — and it passes on those savings direct to its customers. If you want to use three speakers with crossover points at 350 and 1,100 cycles, for example, just order two of the networks listed above (for an 8-ohm system, with rapid crossover attenuation, it would be No. 6 and No. 8). As most everyone has found out by now, G.A. is beadquarter for example, at wo

headquarters for crossover networks. As far as we know, we're the only organization stocking networks specifically designed for use with Air-Couplers. If you are in doubt about the selection of a network for your particular speakers, send 10c for the G.A. Network Data Sheet, from which you can determine your requirements exactly.

SAVE C.O.D. Charges! Send remittance with your order.



RAPID ATTENUATION NETWORKS 12 db droop per octave. These networks use two inductance coils.

	mpedance of w frequency speaker	Crossover Frequency	Order by Number	Price 2 Coils Only	Price Com- plete"
16	ohms	2,200	No. 1	\$7.00	\$11.50
		1,100	2	7.00	12.00
		700	3	12.00	16.00
		350	4	12.00	17.50
		175	5	20.00	24.00
8	ohm\$	1,100	6	7.00	12.00
		550	7	7.00	13.00
		350	8	12.00	17.50
		175	9	20.00	24.00
		85	10	20.00	26.50
4	ohms	550	11	7.00	13.00
		275	12	7.00	15.00
		175	13	12.00	19.00
		85	14	20.00	26.50

Complete networks include necessary capacitors and level controls. Be sure to indicate whether you want just the coils or the complete network.



South Egremont, Massachusetts

READERS' FORUM

Continued from page 100

have already acquired a hi-fi system and have nothing on which to spend our hard earned money except refinements, tape recording is a wonderful opportunity to spend all our ready cash and to mortgage the future besides!

You have probably gathered by now that this is not a complaint. I have enjoyed your magazine in the past and from what you have written about your intentions for the future, I believe I am going to enjoy it just as much, or more, in the future.

I have only one complaint about HIGH-FIDELITY: It happens so seldom.

Myrton Reeves

Oklahoma City, Okla.

SIR:

I am one of those who should consider themselves fortunate enough to be, at least belatedly, a charter subscriber to HIGH-FIDELITY. Therefore, I accept your invitation to enumerate my praise and complaints.

My complaints consider not so much the quality as the quantity. Though I consider I could hardly afford it, I really do believe I will be willing to pay you Twelve Dollars a year if only you will publish HIGH-FIDELITY each and every month, and include as much in each month's issue as provided only quarterly now. At least that is my challenge to you. When shall I send my check?

Midwest City, Okla.

Erwin E. Richter

SIR:

I am not greatly interested in classical music, although I have a high-fidelity in-My chief interests are light stallation. operas, musical comedies, plays, folk music. My greatest regret is that the complete dialogue in musical comedies is not re-corded. To me much of the interest is lost by failure to include it.

You can rest assured that the writer will be one who will appreciate the enlargement of "The Music Between" section, together with more comment on "Voice on Records" (Vol. 2, Nov, page 68).

Wyatt Strickler

SIR:

Anderson, Ind.

I have enjoyed your magazine ever since the first issue and have just sent you a threeyear renewal.

There is one thing that I hope your magazine continues to do and, that is, to indicate names, types and models of various equipment that is so ably written about.

As you know, most other magazines do not mention specific products but leave the reader uninformed and, probably, more con-

fused than ever. Best wishes for your continued success.

Ray L. Stone

Tuckahoe, N. Y. Continued on page 104

NEW! 2ND EDITION of the only complete reference on AUDIO!

"The Recording & Reproduction of SOUND"

by OLIVER READ



A "Must" for und Engineers, Hi-Enthusiasts, P. A. Men, Broadcasting

CONTENTS:

A Partial List of Authoritative Chapters: Behavior of Sound Waves; Basic Recording Methods;Lateral DiscRecording;Microgroove Recording; The Decibel; Phono Reproducers; Styli ; Microphones; Loudspeakers and Enclosures; Dividing Networks and Filters; Attenuators and Mixers; Home Music Systems; P.A. Systems; Amplifiers; AM and FM Tuners-PLUS HUNDREDS OF OTHER SUBJECTS

Now you can have all the *right* answers to any subject in the field of Audio. Learn how to select and get the most out of recording equipment. Tells you how to select the proper amplifier for given applications, how to test amplifier performance, how to eliminate hum. Explains microphone, speaker and pickup principles and selection factors. Shows how to utilize inverse feed-back, expanders and compressors. Covers hundreds of subjects-a vast wealth of reliable information found in no other single volume. If you work in the field of Audio, this book be-longs in your library. Order your copy today!



Let the Postman save you 33‡% **BARUCH-LANG** on the

LOUDSPEAKER SYSTEM

Kloss was the first to make available to the public the ostounding Baruch-Lang Corner Loudspeaker System and is, to our knowledge, the only manufacturer who sells this unit by mail direct to the consumer, with no dealer markup. Buy direct from Kloss, and sove an average of one-third of the usual dealer price.

The Klass unit is manufactured exactly according to the inventors' specifications. Every one of the specially designed speakers used in these systems is individually tested to verify that its resonant frequency lies within limits set by the inventors. Any speaker not passing this test is not used. To assure good high frequency response the speakers are mounted flush with the front of the front panel, and to avoid undesirable resonances the rim of each speaker is treated with a special compaund. Designed exclusively for carner installation, this unit is anly 131/2" high and 19 3/4" ocross the frant. Weight anly 13 pounds.

only \$19.95

This speaker system is supplied complete, ready for connection to any amplifier ar radio. It is ideal for use bath as the main speaker and as a second or third speaker placed at various points in the home. This small, hand-somely finished speaker is extraordinarily efficient and is therefore ideal for use with small amplifiers and table madel radias as well as with higher priced equipment.

Full 10 day refund guarantee if for any reason you feel you have made an unwise purchase. You can therefore listen to the Kloss system in your own home over a period of time — and this, Kloss Industries feels, is the only way to really test a speaker.

Please specify birch or mohogony moulding, 4 ar 16 ahms. Postage paid on prepaid orders. Add \$1.00 west of the Mississippi-

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Carefully Selected High-Fidelity Components

Famous For Quality As Well As Value-Each Unit is a "Best Buy" in its Own Field

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MODEL 20W-2 20-WATT AMPLIFIER

A deluxe high-fidelity custom amplifier with really phenomenal features and specifications. Useful response is 20 to 20,000 cycles. Has a harmonic and intermodulation content of less than 1% at 20 waits. Input, 100,000 ohms; for operation from a tuner, crystal phono pickup or preamplifier below. Output, 600 ohms balanced and 4, 8, 16 or 32 ohms balanced or unbalanced. Size, 81/6x63/4x51/2". Shipping weight, 30 lbs. 96F200. NET

MODEL C-104 EQUALIZER-PREAMPLIFIER Companion unit for above. Has 5 input channels: TV Audio, Tuner, Mike, and High and Low Level Magnetic Cartridges. Separate bass and treble boost and attenuation controls. Size, 10x33/4x71/2". Shpg. wt. 7 lbs. 96F204. NET

APEMASTER MODEL PT-125A BASIC TAPE RECORDER

Low-cost, professional quality tape recorder for use with external amplitier or radio. Dual track, dual speed: records at $33_4^{\prime\prime}$ and $71_2^{\prime\prime}$ per second. Response: ± 3 db. 70 to 6000 cycles at $71/2^{\prime\prime}$; ± 3 db. 70 to 5000 cycles at $33_4^{\prime\prime}$. Inputs for radio, phono, and mike. With tubes, tape, reel and cable; less amplifier. Size, $121_2x12x91_2^{\prime}$; Wt., 211_2 lbs. **109.50**

MODEL SA-13 HI-FI AMPLIFIER AND SPEAKER

Companion unit for above. Response ± 1 db, 30-15.000 cps. Peak output, 8 watts. Less than 1% distortion at 5 watts. Bass control boosts 7 db, attenuates 12 db-at 30 cps. Treble control boosts 12, attenuates 10 db-at 15.000 cps. 71/2° accordion type speaker with floating cone. Tubes: 5881, 65N7GTA, 6C4, 5Y3GT. Size 91/2x12x181/2°, 25 lbs. **79.50**

NEWARK FM-AM RECEIVER CHASSIS

One of the finest high-fidelity values available. This FM-AM chassis is perfect for modernizing old conscles, or as the nucleus of a low-cost high-fidelity music system. Included are such top-noich features as drift-free FM, push-pull audio output, full-range bass-treble tone control, and a phono jack with built-in preamp for magnetic pickups. The chassis is shipped complete with a 12" PM speaker, built-in AM and FM antennas. 12 tubes (including rectifier), all necessary hardware, and an escutcheon. Size 131/2x9x9". W1. 20 lbs. 96F034. NET

GARRARD MODEL RC-80 3-SPEED CHANGER

The world-famous changer that plays all types of records with watch-like precision. Includes special interchangeable spindle for 45 rpm records. Accommodates most cartridges, Has adjustment for needle force. Size. 151/x131/4; requires 534' above. 31/o below. With plug in heads, less cartridges. Shpa. wt. 18 lbs. 73F510. NET 41.45

Order From Department H-33



READERS' FORUM

Continued from page 102

SIR:

Would it be possible to have an occasional article on the care and operation of the more popular equipment? I am using a Bell 2122 amplifier, Garrard RC 80, G-E 1201 speaker in bass reflex enclosure, a Pilot FM tuner, and a G-E 050 pickup. While this is in the lightweight division, it still gives an occasional headache to get the most out of it.

While it does fairly well on 78 and 45 rpm. records, I was disappointed to find it too shrill when I ventured into the longplay field, Columbia in particular.

Another trouble I have is the 6SC7 tubes get noisy in the Bell amplifier.

We are at a disadvantage out here since there are no stores where one might compare different items of equipment in actual operation. One hesitates to order a \$130 tuner unless he is reasonably sure it is going to improve reception very much.

Algona, Iowa

Harvey Reid

In such situations our usual suggestion, for want of a better one, is to write the manufacturers of the various components who are almost always helpful.

SIR:

Please hand this dilemma to your bevy of musicologists:

I have about 75 LP's.

I buy one or two each month; sometimes more.

I know what I want in Beethoven, Brahms, and the general run of concert programs.

I want something *typical* of Handel, or Toch, or Scarlatti, or Haydn quartets, etc., but no music store (or concert program) can possibly help me, except over a period of several years. I once got a Bach cantata by accident, and now I buy them whenever I have a chance.

So, why not, when you have finished a laborious review of any one composer, indicate to us (and we must be the majority. I'm sure) in some fashion some way of beginning to know his various forms of work or his work as a whole. So much music can be learned only from records. You do not have to "plug" any particular recording; call it "For Those Unfamiliar, etc." and suggest recordings in order of their suitability for the neophyte.

The record manufacturers should bless you for helping us into unknown regions of music.

W. B. Wollman

Los Angeles, California

Upcoming - beginning May, we expect.

SIR

I suppose I had better give you the "go ahead" on my subscription *now*. Don't want to miss any issues.

Had intended to renew all along, but after receiving two of your subscription reminder letters which, to me, are classics, I

Continued on page 107

FREE

Full of the Latest Releases

in Audio

Equipment



KLIPSCHORN is the authentic corner horn loudspeaker produced by Klipsch and Associates under the direct control of the inventor of the system.

KLIPSCHORN achieves smoothest response, least distortion and widest range; quality has heen promoted above price. That is why prices range from \$446 to \$700.





REBEL, designed and built by the makers of Klipschorn, is an economical approach to corner horn application and has been used as an "interim" speaker while awaiting the financial resources needed for a KLIPSCHORN. Prices from \$72 to over \$200.

For details, models, finishes, and styles write

KLIPSCH AND ASSOCIATES HOPE, ARKANSAS

Phones — 7-6795 7-4538





handy KIT form. No soldering necessary.



110 Lake View Avenue

105


READERS' FORUM

Continued from page 104

am almost tempted to wait just to read letters Nos. 3, 4, 5, 6, etc.

Someone has a sense of humor and a new approach, quite a difference from the usual rather stereotyped forms from most publishers.

Enter my subscription - stop my addressograph plate from quivering - and send me the rest of those form letters so I won't feel slighted. Thanks for keeping H. F. on such a high plane.

R. A. Thorpe

TUNED RF (AM)

TUNED RF (FM)

10 uv @ 92 MC

12 uv @ 106 MC

ORDER BY MAIL

\$37.50

APPROVED'S

A-610 SUPPLY

ONLY \$12.05

ma. (\$12.05.

For A.710 tuner, scores of other uses. 6.3V AC @ 4 amps., 150V DC @ 40 ma, 170V DC @ 20 ma. Ord. No. 36-207, \$12 os

FREEL 224-PAGE

WRITE TODAY!

1953 CATALOG

SIR:

Being one of your subscribers, I am getting very disgusted with your service! Up until last November I had received every issue of my subscription promptly. Since then, I've written you two letters on why I have not received any Nov. Dec. issue. The first was just a reminder and the second contained a one dollar money order for at least a spare issue.

I have not received any answer. What is going on out there in Great Barrington? I'll be satisfied as long as I get one issue. If you should go so far as to extend my subscription one issue, I'll be very happy.

P.S. I dare you to print this letter. Thomas J. Donahedian

Worcester, Mass.

(1) Be happy, Sir, your sub has been extended one issue.

(2) Dare accepted.

SIR:

For some time I have intended writing you concerning the Neo Furniture Company, located at 1317 South Michigan Avenue, Chicago, who helped design and larer build a custom cabinet to house my TV, radio, tape recorder, and two record-playing mechanisms.

I am so pleased with their work that I felt other potential customers in this area for such cabinets should know of the fine workmanship and active interest of members of this organization.

William J. Davis

Chicago, Ill.

SIR:

For baffle and cabinet work in the Baltimore area, I would recommend W'm. Rock & Son, 226 North Greene Street.

During three years with Muzak, installations were sometimes encountered which required enclosures artistically as well as acoustically correct. For those as well as subsequent private home designs, Mr. Rock has demonstrated fine workmanship, with gentlemanly treatment and fair prices. Aeolus Trammell

Glen Arm. Md.

Any more names for the carpenter and caoinet-maker file?

Continued on page 108

RADIO SHACK BUYS OUT APPROVED HI-FI FM-AM TUNER INVENTORY!



MORE APPROVED ELECTRONICS BUYS!

\$19.95

Another exclusive Radio Shack value. The nationally cataloged Approved Elec-tranics Model A-710 hi-fi genuine Arm-strong circuit FM-AM tuner at a price more than 45% below regular dealer net! With 12 miniature tubes, escutch-eon, knobs, schematic and full guar-antee. Compact $81/4 \times 5\%$ x 8% deep chassis. Less power supply: requires 170V DC @ 20 mils and/or 150V DC @ 4 amps — see A-620 supply below. Tuner: Ord. No. 36-206, \$34.50.

APPROVED PREAMP-EQUALIZER!

TECHMASTER

WILLIAMSON

Amplifier KIT

Model A-800, almost ball off! Preamp for magnetic pickups, 6 pos. equalizer for G-E and Pick. Separate tone controls and all remote features. Take power off Williamson and other amps. Ord. No. 33-246, \$19.95.

Williamson type kit, com-

with amon type kit, com-plete to the last com-ponent, can be wited by anyone. Includes power supply. 9 x 12 x $6\frac{1}{2}$ ". Ship wt. 27 lbs. Order No. RN33-340 \$49.95



The most famous make variable reluctance contridge (requires reluctance cartridge (requires preamp) and a Radio Shack ex-clusive. Separate sapphire styli for 78 and 33.45. Same as reg. stock except for packaging which is mfg's bulk. Ord. No. 15.092, \$5.70, 3/\$16, 6/\$30.



Also for Audax, and another Radio Shack exclusive. 6 posi-tion switch for all domestic and foreign 78 and LP records, including noise eliminator. No wiring: plug tone arm lead into equalizer, plug equalizer lead into preamp; mounts on any panel. Ord. No. 15-568, \$11.95. Special, with above cartridge, \$16.95.



D4 EALT #1025 Kilts On Parade (bag-pipes), #1070 Rail Dynomics (RR sounds), #1035 Great Barrel-house Piano (hi-fi on the nick-elodeon), #1030 Marp solo, #1050 Pipe Organ Vol. 1. #1051 Pipe Organ Vol. 2. Also Cook test records \$4.80 each: Series 10 (78 rpm); Series 10A (10" LP), Both have 35:20.000 cycle tones accurately calibrated. Add 50c per ship't for packing and mailing. mailing.

ACROSOUND TO-300 XFMR. FOR ULTRA-LINEAR "WILLIAMSON" AMPLIFIERS

Half the size of competitive units. Freq. response ± 1 db. 10 cps to 100 kc. 24 watts @ 3% intermodulation with onty 10 3% + Order No. R14-343. \$24 75

MAIL ORDER FACTS:

SALE PRICE

Shin, wt. 5 lbs

n95



CORPORATION 167 Washington St., Boston 8, Mass.

IMPROVE YOUR FM SIGNAL! SAVE \$17* *REG. \$29.95 LIST, ASTATIC BT-1 BOOSTER FOR FM, TV, 2 METERS



- * 52-216 MC! 6AK5!
- * HI GAIN, LOW NOISE!
- * AC TRANSF. SUPPLY!

Ideal for weak FM signals, the Astatic BT-1 features broad band continuous coverage in 6 turns of the entire 52-216 mc band, including FM broadcast, TV channels 2-13, and the 144-148 mc band! Use as FM and TV booster, or as a 2-meter preselector (similar to R9er) if you're a radio amateur. Handsome $4\frac{1}{4} \times 6\frac{1}{9} \times 4\frac{3}{4}$ " metal cabinet with mahogany woodgrain finish. On-off switch for cutting in and out of circuit — no need to disconnect booster when not in use. AC only. Provision for 72 ohm or 300 ohm impedance input and output. Full guarantee. Typical Radio Shack savings! 36-001

CORPORATION

167 Washington St., Boston 8, Mass.



coaxial reproducer in a few minutes. Installation is extremely simple and results in a dual speaker system at relatively low cost. Model 4407 in-cludes Model 4401 Tweeter.

MODEL 4401 — 2000 CYCLE TWEETER, response 2000-15,000 cps. Efficient and economical for extending the response of any good 8-15" cone speaker to 15,000 cps. EXCLUSIVE "reciprocating EXCLUSIVE "reciprocating flares" design ossures wide angle dispersion. Use in 2 or 3-way systems where crossover in the 2000-5000 cps range is desirable. For amplifiers up to 25 watts, woofers 6-16 oh

WIDE ANGLE **MODEL 4402** DUAL TWEETER. The most versatile reproducer ever available. Use of TWO independent drivers permit series or parallel connection for matching 4-16 ohm speakers. For omplifiers to 50 watts. Can be connected for medium or wide ingle distribution. For 2 or 3-way

systems. Response 2000-15,000.

CROSSOVER NETWORKS

MODEL 4405 - FREQUENCY DIVIDING NETWORK. An effective ond economical unit preventing frequencies below 2000 cycles from entering the Tweeter circuit. Protects the Tweeter ond reduces overlop in the crossover ronge. Includes built in volume rootscal built-in volume control.



MODELS 4410, 4420-L/C CROSSOVER NETWORKS. Segregates highs to the Tweeter and lows to the woofer. Reduces overlap response in Tweeter and



sponse in lweeter ond woofer. Model 4410 for 600 cycle reproducers, 4420 for 2000 cycle tweeters. Con be used together as a network for 3-way systems. Vol-ume controls included ume controts included.

Write for literature describing 8", 12", and 15" extended range, caaxial and woofer type cone speakers. Address Desk H-12



I RECORDED IT MYSELF

Continued from page 33

obviously, on how much it is used, but be sure it is done regularly and always before important recording sessions. Use a cleaning fluid such as carbon tetrachloride for the heads and capstan.

The heads should be demagnetized at least twice a year. This can be done by your dealer. Care should be taken to see that magnets are kept away from the heads. Demagnetize your screw drivers and scissors!

Remember to carry splicing equipment with the recorder. Never use anything but the special-purpose tape designed expressly for splicing magnetic recordings. It is not gummy or sticky and will not dry out, whereas standard household transparent tape will. Cut slightly into the sides of the spliced area (that which is covered by the splicing tape) as this tends to eliminate splice breaks and jutting pieces that may break off. The spliced area will then be minutely narrower in width than the rest of the tape.

Test the recorder carefully for maximum allowable volume, as too high a recording level will produce not only occasional distortion, but also cause an effect known as print-through when rewound. Under this condition, the high level areas will print on all the turns of tape they touch, causing objectionable echo.

Store your tape in cool, dark areas away from magnetic fields. Always run new tape through the machine at least once at fastforward speed, and then rewind it to insure against sticky tape with its resultant flutter. An alternate suggestion is to leave recorded tape on the take-up reel and store it in this form. Then, when you wish to play the tape again, you rewind it first, which automatically removes the sticky areas which occur on stored tape, and provides a freshly rewound tape ready for play.

It is advisable to label both reels and boxes for easy identification. When using dual track, be certain that both sides of the reel are properly identified.

You will find that building a high fidelity tape library using all three principal sources of recordable material, not only enjoyable but profitable and enlightening as well. There's no feeling like being able to say, 'I recorded it myself".

READERS' FORUM

Continued from page 107

SIR:

Just an additional word on: "It's not how it measures but how it sounds to you, that counts'

I hooked two Altec-designed Western Electric 12-in. 728-B and one of the same make 8-in. 755-A speakers in parallel (no crossover), stuck them on an 81/2-ft. plank 15 ins, wide and placed them in a corner of the room with the top open. Sound was a

Continued on page 110





MODEL 6201 - COAXIAL SPEAKER SYSTEM. Now gen-erolly acknowledged to be industry's finest value in o high quality 12" speaker. TRUE coaxial dual range system comprising clean sounding woofer with heavy exclusive Alnico 5W magnet, DRIVER TYPE Invester with "Reciprocating flares" wide angle horn, and BUILT-IN angle horn, and BUILT-IN crossover network complete with "Balance" control.

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record equalizer

- Front-panel-selected equalization for AES, LP or EURopean recording characteristics. In-verse feedback compensated dual-triode phono preamp for correct turnover and roll-off characteristics.
- Improved AM reception. Wider bandwidth for better fidelity, and sharper IF bandpass "skirts" for greater selectivity.
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justments around each of the three main positions.





READERS' FORUM

Continued from page 108

little too crisp so, acting on the advice of an engineer, I threw some old cotton wadding behind one of the 12-in. speakers. All this violates the principles of using at least one crossover in such a hookup. Also, the manufacturer says the speakers must be in a closed box, and they must be heavily padded. I'm sorry. I get bass that shakes the floor without being boomy. When I hear a violin it doesn't sound like a flute and a 'cello comes out with an effect that makes me jump every time I hear it. Highs are crisp without being edgy.

Terribly sorry. I tried the directions with the speakers, to the letter, and I was miserable with the thump-thump noises that sounded like the old Majestic sets of 25 years ago when the salesman wanted to demonstrate "tone".

New York, N. Y.

Phil Walsh

Sir:

• Quite obviously a great many of your readers are record collectors and probably many of them have the same problem that I have: how to store long-play records.

It would seem that a filing cabinet done in mahogany instead of the conventional olive green used in offices, would be the perfect answer to this. However, so fat as I know, none of the filing cabinets is of the right size to accommodate 12-in. records.

It is my thought that if you could interest a manufacturer in making a cabinet of the proper size, they would probably find a ready market for such cabinets.

Esrkine L. Carter Albany, Ga.

Manufacturers, step forward, please.

Sir:

When I first obtained a subscription to your magazine I was mainly interested in obtaining your Beethoven discography. At that time I hadn't the slightest idea what a science audio has become. I must confess I had not even heard the term used to apply to record playing and the associated equipment.

After receiving HIGH FIDELITY I have become an ardent audiophile and am now planning my own equipment. I find your magazine invaluable in this regard and am very happy to note you have increased the number of issues per year. Enclosed please find my renewal for the next three years.

G. E. Norman Wawa, Ont., Canada

Sir:

After reading the letter of Samuel A. Brown of New Haven, Connecticut, in the January issue of HIGH FIDELITY I felt that it was time that you and he were appriased of the fact that for some time WDRC-FM of Hartford has been carrying the programs of WQXR in New York from 3:00 P. M. until 11:00. If my memory serves me correctly this service to the music lovers of this area began some time during the month of October of last year. It is certainly a relief

Continued on page 111

BOZAK PLANT EXPANDS

STAMFORD, CONN. — Feb. 28, 1953. Rudy Bozak, now in larger quarters with his R. T. Bozak Co. says that his users, by their enthusiasm have forced an expansion of his facilities. Typical quotes from customers letters are:

"As a musician and record reviewer I am familiar with the sounds of live music and I would like you to know that the *Bozak* speaker is the only one I have heard that reproduces it faithfully. I have listened to one "hi-fi" job that is brilliantly clear so clear that it seems to separate the sounds from each other; my *Bozak* is certainly clean enough to distinguish any sound I need to, but it blends with the kind of blend one hears in the concert hall!"

-C. H., N. Y.

"For complete fidelity, naturalness, freedom from peaks and tinniness in the higher notes, and freedom from resonance and "boom" in the lower and bass registers, I have yet to hear anything to satisfy me so much as the *Bozak* I purchased from you. As far as I am concerned, there is no such thing as "listener fatigue" with this equipment. On the contrary, one finds oneself wanting to hear more and more."

-B. M., Wash.

"After eleven years of buying and trying, listening and comparing, I have at last found a speaker system that actually sounds like live music." -J. II., N. J.

"All of us are quite familiar with the performance of other loudspeakers including those which sell at a much higher price than the *Bozak* system but 1 can say sincerely that none of the other loudspeaker systems that are generally available on the commercial markets are superior to yours and very few of them are its equal. The clarity and fidelity of the system are exceptional." -M. S., L. I., N. Y.

The custom-built aspects of his speakers says Bozak, grows along with the sales, because of the unique processes used in production. The variable density cone, the longer piston travel, and the unsurpassed transient response (as attested to by one of the nations leading laboratories) has broadened his speakers popularity among engineers.

"There is no competition for a *Bozak* regardless of price."

Write for information.



READERS' FORUM

Continued from page 110

to be able to tune such a station as WDRC-FM and have something to listen to that is worth while.

Another note of interest to music listeners in this area who are also readers of HIGH FIDELITY is the binaural broadcasts which WDRC-FM is doing with the WRDC AM station at 10:30 P. M. on Friday nights. These broadcasts are made in cooperation with the Hartford School of Music.

Many thanks for publishing the list of turnover frequencies and treble droops used by the record manufacturers. I hope that the list will be completed in the next issue. I hope to build an equalizer within a year or so, and that information will be invaluable to me. As a suggestion to those who wish to make use of the data with each record, a gummed label with the pertinent information could be pasted on each record jacket. This would save looking the information up in a special file for each record.

Here's hoping that your magazine keeps on being the valuable source of information that it has been to me.

Paul B. Ostergaard

Manchester, Conn.

SIR:

I think the review (HIGH FIDELITY No. 7) of the Clough-Cuming "World's Encyclopedia of Recorded Music" was less than fair. The reviewer could hardly have had any appreciation of the undertaking. The work was already under way nearly ten years ago when I first made contact with Francis Clough. I sent loads of material to him and visited him twice in Wales, and I am only one of very many who had small parts in this vast compilation.

A. F. Franch International Records Agency Richmond Hill, N. Y.

Amen. The more we use the C-C Encyclopedia, the more astounded we are by its completeness and thoroughness.

SIR:

After reading the article on the biamplifier system (HIGH FIDELITY No. 7) it occurred to me that you might like to know that I have been using a similar set-up for over a year now with results that many well-listened people consider to be the ultimate. I personally feel that the smoothness and overall listening pleasure exceeds any of my many previous hi-fi systems. Being a musician and a rather critical listener myself, it is my contention that this system gives the least listening fatigue of anything heard -and many people have told me that they have never listened to music so loud and had it pleasant at such a level.

The complete unit consists of a homemade Klipsch corner low-frequency unit using an Electro-Voice 18wk. This system is two-way only. The treble unit is an extra large-mouth 90° horn driven by a Jim Lansing D-175. The taper on this horn is long and smooth, with an acoustical cut-off of about 300 cycles. Crossover is 550 cycles. The crossover amplifiers are complete on

Continued on page 112

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A high-fidelity amplifier power stage for use with the PA 911 or the AF 821. Frequency response 20-20,000 flat within ±1 db. Speaker output 8 and 16 ohms. Total hormonic distortion less than .1% at 10 Watts output. Uses KT66 power tubes.



READERS' FORUM

Continued from page 111

the same chassis with preamp, tone controls, and crossover filters; the power supply is on a separate chassis but is common to both amplifiers. The basic power amplifiers are of the Williamson type, the low one being a push-pull parallel κ T-66 job capable of 25 watts and the high one, a conventional 10 to 12 watt Williamson using a U.T.C. output transformer.

The filter section is very similar to yours except that on the treble amplifier I use two more filter sections to protect my H-F driver from any lower frequencies, since these Jim Lansing drivers are expensive and delicate.

Although I actually have both filter sections in use, I found that with the Klipschorn low frequency unit, the low-pass filter is not really necessary since there is considerable attenuation of everything above about 600 cycles. However, I did retain it for any possible advantage it might have in reducing intermodulation distortion. Maxheld B. Stroub

Detroit, Mich.

JAZZ: TAPE IT

Continued from page 43

preserved no one can know until the records are heard.

Anyway, the audience didn't seem to mind. Most of the youngsters thought it great sport, and showed splendid willingness to join in vocally which evidently was considered desirable. In fact, it would seem that Victor's intent was to preserve for sociologists a good recording of the Meadowbrook crowd and — only incidentally — Ralph Flanagan's music. The result will probably be released in the late spring. (For a more successful effort, see discography.)

M-G-M Records tried a technique suggested by Downbeat editor Leonard Feather. Like Victor and Columbia they had the scene of action (in this case one of New York's jazz meccas, Birdland) wired for sound. But instead of recording on-thespot, they relayed the music from two mikes (one at the piano and one over the horns) to their WMGM recording studio, where they made the tape. A "Hot vs. Cool" session was held, featuring a "hot" group (pre-dominantly dixieland) headed by Jimmy McPartland and a "cool" group (playing in the manner of George Shearing) headed by reformed bopper, Dizzie Gillespie. The combatants used the same tunes: Muskrat Ramble; Battle of the Blues; Indiana; How High the Moon. Who won? The records were not available when this article closed. Both the musicians and the audience, unfortunately, knew the "contest" was being recorded.

Using still another approach. Decca has launched a new series — Jazztime USA on their Brunswick label, which, they contend, will capture the "live atmosphere of excitement, audience appreciation and ap-

Continued on page 113

DIAMOND NEEDLES \$10⁵⁰ Postage

No doubt you have learned by now that the needle in your record player is not permanent. It is tipped with either sapphire or osmium metal which should be changed after about 20 hours of playing, in order to protect your valuable records.

This means that if you use your record player on an average of an hour a day these needles need replacing about every three weeks at a cost of between \$1.50 to \$3.50. Because of this frequent needle changing you have of course learned how to install a new one when required.

Why not, then, retip your present replaceable needle with a genuine diamond. One that will give you at least 1000 hours of high fidelity, distortion-free record playing pleasure with the comforting assurance that your costly records will remain undamaged — particularly those long-playing micro groove records, so finely grooved and sensitive to a worn stylus?

Send us your replacement needle assembly now—today. Let us retip it with the highest quality genuine diamond stylus—exactly the same kind that we make for leading radio stations the country over. Save the difference between \$10.50 for 1000 hours of playing and up to \$3.50 for 20 hours. And also save because you deal directly with a leading manufacturer of diamond styli for broadcast use who is in a position to offer the lowest price available for diamonds of this quality.

Our diamond tips are unconditionally guaranteed and are made for LP or standard records. Send check or money order for \$10.50 plus 25c for return postage with your needle assembly or complete cartridge if you cannot remove the replacement needle assembly (except Pickering non-replaceable type) to:

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172 Green St. Dept. H Boston 30, Mass.

JAZZ: TAPE IT

Continued from page 112

plause" and still "reap all the technical advantages of a regular studio recording." To achieve this they held a free jazz concert in their sizable recording studio — the elderly Pythian Temple on New York's 72nd Street. About four hundred tickets were distributed through the USO, Birdland and the Downbeat Club, and a lusty, leatherlunged crowd was on hand for the first concert. The Terry Gibbs Sextet and Mary Lou Williams' Orchestra supplied the music.

In theory the concert should have resulted in some first rate live recordings. In practice, it didn't happen. Although in Mary Lou Williams' *C Jam Blues* there are superb flashes of inspiration, especially from Morris Lane on the tenor sax and Newell John on the guitar, the music is generally too selfconscious. Flagging inspiration is replaced by over-zealous playing. And when one of the musicians does take off on an exciting chorus, the audience usually picks it up adding a chant-like "go! go! go!" — which, about that time, is the listener's reaction, too.

The concert was held in the Temple in an attempt to achieve better recording conditions. Even this backfired. Reverberations turn the whole recording into a grotesquery. The sextet's *Flying Home*, for example, sounds as if it were recorded in an indoor swimming pool during a lively game of water polo. For future concerts, Pythian Temple will obviously have to be fitted with an audience damper.

This whole, heartening live-jazz trend could go astray if recording directors confuse the means with the end. As long as a live audience is mistaken for live music, the resulting records will continue to sound like Ebbets Field on a summer night. For the record listner, the audience is a necessary evil, its noise tolerated only so long as it excites the musicians to new ideas and inspites them to attempt more difficult feats on their instruments. Audience-noise sometimes may be interesting, even exciting, but it's not music. The recent experiments prove that the best way, still, to get real jazz on records is to sneak up on your favorite band with a live mike concealed in your boutonnière - unbeknownst to the musicians or to the audience.

Jazz fans interested in additional recordings made at "live" sessions might listen to the following from the dozens now availablee

Jamming at Rudi's, Vol. 1. Circle L407. \$3.85. A jam session at the New York apartment of jazz authority Rudi Blesh. The jammers: trombonist Conrad Janis, his Tailgate Jazz Band and a few innocent bystanders. The music is all pure New Orleans and reflects relaxed atmosphere. The record has one claim to distinction: the longest When the Saints Go Marching In on records - 9 minutes. The recording is excellent, although the microphone could probably have been more advantageously placed fot Eubie Blake's piano and Pope Foster's bass. Jamming at Rudi's, Vol. 2. Circle L-410. \$3.85. Another session at Blesh's apartment, but this time the music sounds more like nearby Harlem than faraway New Orleans. Jammers: Lips Page, trumpet; Tyree Glenn, trombone; Burney Peacock and Paul Quini-

Continued on page 114

AVALOCH, a Country Inn at Lenox, Massachusetts

.... offers much more than a place to eat and sleep. Of course, we are told that in all New England there is not such a display of food to delight the eye and intrigue the palate as the Saturday night buffet at Avaloch. And for the guest rooms — they represent the era when Avaloch was a private country estate, and Lenox was the summer center for many of New York City's first families.

But beyond these things there is a hard-to-define élan derived, perhaps, from an elegance that doesn't take itself seriously, and from an attitude toward people's needs which does.

Avaloch is one of the few places in the Betkshires open the year 'round. Dinner guests are always welcome to spend the evening browsing in the library, listening to records selected by a high-fidelity enthusiast, playing chess or bridge, or simply relaxing before an open fire. House guests are limited to 70 in the summer, 45 in the winter. For the summer, and for winter holidays, advance reservations are necessary.

Tanglewood, site of the Berkshire Music Festival, is within a minute's walk. The Dance Festival at Jacob's Pillow is only a short distance. Many ski areas are nearby. Among our frequent guests are members of the High-Fidelity staff, and those who ask them to recommend a place distinguished for fine food and creature comforts. For information or reservations, address Avaloch, a Country Inn, Box 5, Lenox, Mass., or telephone Lenox 41. Rates are agreeably moderate.

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qualities of the basic design have been realized by employing a completely engineered assembly with specially wound transformers and the highest quality components. This cannot be equalled by the usual practice of assembling mass-produced parts. 4. Some indication of the difference in construction can be derived from

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JAZZ: TAPE IT

Continued from page 113

chette, saxes; Sonny Greer, drums; Walter Page, bass; Danny Barker, guitar; and Ken Kersey alternating with Dan Burley on piano. Boogie fans will like Kersey Boogie; Rhythm fans will like Sonny Greer's "jungle stuff", as he calls it, on Sunny Jungle; and everybody will like the eight minutes of jamming that starts out as Sweet Sue and ends with Page growling into the bottom of a glass with just his mourhpiece.

Jazz at Storyville: Pee-Wee Russell, Vol. 1. Savoy MG 15014. \$3.00.

A session taped at Boston's up-and-coming jazz center in January, 1952. Russell, attempting a comeback after his near-fatal illness, headed a dixieland group made up of Rudy Braff on trumpet, Ephy Resnick, trombone, John Field, bass, Red Richards, piano, and Kenny John on drums. The music is relaxed, but Russell is plainly not the legendary Pee-Wee of old. An imaginative, four-minute drum break on a number called Euphoria is Here to Stay serves notice that young Kenny John is also here to stay. The recording is fair and the audience wellbehaved.

Jazz at Storyville: The Stan Getz Quintette.

Roost RLP 407. \$3.00. Strictly for the 'new school: students. The fleet-fingered Getz (tenor sax), with Al Haig (piano), Jimmy Raney (guitar), Teddy Kotick (bass) and Tiny Kahn (drums) trying to keep up with him, takes off on four tunes, which, for lack of anything better, he calls: Thou Swell; Mosquito Knees; The Song is You; and Parker 51. The recording: fuzzy.

Mugsy Spanier Broadcasts. Circle L-423. \$3.85. Recorded at one of Rudi Blesh's This is Jazz broadcasts made in 1947, for the Mutual and Canadian Broadcasting Companies, shortwaved abroad by the State Department. Muggsy, on cornet, and trombonist George Brunis pace an excellent dixieland group made up of Albert Nicholas on clarinet, Pops Foster, bass, Baby Dodds, drums, Danny Barker, guitar and Joe Sullivan, piano. Especially good; a jolly, St. Charles Street parade treatment of Panama; and a Lonesome Road that leaves you with that . . .

well, lonesome, . . . feeling. Charley Christian: Jazz Immortal. Esoteric

ESJ-1. \$4.00. (Charley Christian, guitar; Thelonious Monk

piano; Joe Guy, trumpet; Nick Finton, bass; Kenny Clark, drums.) For this rare session we can thank a jazz enthusiast named Jerry Newman. He re-

corded it in May, 1941, at Minton's Harlem Playhouse, two months before Christian's health collapsed. He died a year later, of tuberculosis. The electric guitar was virtually unknown to jazz until Charley Christian introduced it with the Goodman Sextette. It has since become one of the most popular solo instruments and many jazz guitarists have developed in the Christian tradition. However, the long, inventive solos on both sides of this LP demonstrate why Christian is still considered the maestro. Recommended despite an unusually poor recording.

Continued on page 118



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NOTED WITH INTEREST

Continued from page 17

Operatic Move

"Another great Cetra-Soria 'first" was the advertising tag given the album of Bellini's La Sonnambula, just released. But it was a first that also was a last. As of April t, Cetra-Soria is to be no more, at which many a lover of recorded opera mayshed a mourning tear. Not that there is anything tragic in its disappearance. Capitol Records is buying out C-S; hereafter its splendid line of Italian operas will bear the label Capitol-Cetra.

The deal was a mutual triumph for two of the brightest young-ish men in the record business, Dario Soria and Glenn Wallichs, president of Capitol. Wallichs launched his company exactly 10 years ago, and made it one of the "Big Five" in jig time, concentrating on "pops". This year he decided Capitol's classical line needed expansion - especially in opera. Capitol's artist-and-repertory men dug for opera, discovered that the best opera-company talent was pretty well ried up. At this juncture Mr. Soria came to the rescue. The son of an Italian banker, Soria had come to this country to become an ace promotion-man (the Edgar Bergen Show, for instance, benefited from his talents). În radio work, he discovered tape, was inspired by its possibilities in recording. He also foresaw the popularity of opera among U. S. record buyers. He sold his ideas to Cetra, a modest Italian recording company, and, in 1946, began importing Romemade complete operas to America. At the date of sale to Capitol (April 1), Cetra-Soria will have published 46 albums. Cetra will continue to record (and distribute in Italy) for Capitol. What Dario Soria will do, after celebrating this million-dollar deal, he coyly declines to state, except to say he will stay in the record business. Whatever he does, it will be exciting and, it is safe to say, successful.

The Brighter Side

Maybe things are looking up, for editors. Earlier in this column, we quoted at some length a publicity release which was sufficently far from the run of the mill mimeo'd sheet to escape the usual quick mental note and prompt filing in the w.b. In the month's mail, there's another one. b'gosh! This one is from Columbia, who mimeo'd three pages on their "revolutionary new table-model high fidelity phonograph", then added two pages of vital statistics. Then, with a stroke of startling genius, someone on Columbia's publicity staff realized that there was a chance that the rewrite man on the night desk of the Ogominee Despatch might not be an audio engineer and might not understand the true significance of the "Vital Statistics" pages. So two more pages were added to the release: a "high fidelity phonograph release: a "high fidelity phonograph glossary". This took some work, as anyone who has tried defining hi-fi terms can realize; the result is worth quoting:

HIGH FIDELITY: as applied to record reproduction so realistic that the illusion of



being present at the actual performance is created.

PICK-UP: (or pickup cartridges) converts the lateral motions of the stylus tracking the record grooves to a corresponding electrical signal which is then transmitted to the amplifier.

TONE ARM: a movable arm which is free to turn about a pivot at one end and carries the pickup in the opposire end to track the record grooves.

AMPLIFIER: an electronic device which raises the power level of the tiny electrical impulses supplied by the pickup. Its output is fed to the loudspeaker.

SPEAKER: a treated paper cone actuated by an electro-magnetic coil at its apex; when the coil is powered by electrical impulses from the amplifier, it vibrates, setting up sound waves in the air.

FREQUENCY RESPONSE: acoustically, the number of complete vibrations per second of a sound wave; bass or low frequencies are measured in smaller numbers of cycles per second, approximately 50 to 200. Treble or high frequencies fail roughly in the range above 1000-2000 cycles. The usual range of audibility varies from 30 to 50 cycles to 8,000 to 15,000.

FLAT RESPONSE: as applied to amplifiers, microphones, speakers, etc., means that they respond to all frequencies with uniform efficiency.

PUSH-PULL OUTPUT: obtained by using two power tubes instead of one to "drive" the loudspeaker, one tube "drives" negative, one "drives" positive, doubling the available power and balancing out distortion due to tube "effort". FEEDBACK: feeding back a fraction of the output of an amplifier into the input of the amplifier; negative feedback tends to make the frequency response more uniform or flat and reduces distortion.

NON-RESONANT: in reference to the tone arm or enclosure, describes a system which won't vibrate in sympathy with any of the frequencies it must contain or deal with. RECORDING CHARACTERISTIC: describes1 the lateral displacement of the record groove as a function of frequency. To minimize surface noise and economize on space between grooves, records are cut with volume which increases as the frequency ascends. The relative amount of high and low frequency volume on the record varies somewhat with each manufacturer and type of record. By specifying the recording characteristic, it is possible to reptoduce the proper balance of the music by compensating for this vatiation of volume with frequency.

West Coast Goings-On

We're going to press at exactly the wrong time to report on the West Coast Audio Fair, which is being held while the presses are running on this issue of HIGH FIDELITY. So, beyond saying that 4,000 people attended on the opening day, a report will have to wait until the May-June issue. Meantime Californians might jot down on their calendar that the 1953 Western Electronic Show and Convention will be held August 19, 20 and 21 at the Civic Auditorium in San Francisco.

Continued on page 120



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JAZZ: TAPE IT

Continued from page 114

Just Jazz: Les Thompson and his Harmonica, Victor LPM 3102. \$3.15.

It took Charley Christian to show the versatility of an amplified guitar. Now, perhaps, a young deputy clerk in the traffic Division of the Los Angeles Police Department has done the same thing for the harmonica. In February, 1952, Les Thompson, playing a standard, four-octave, chromatic harmonica through an amplifier which he built himself, practically broke up a Jazz Concert given in Pasadena (one of a series called Just Jazz presented by Gene Norman, Recordings of some of the earlier concerts were released by Modern, a small west coast company). Righteous fans, instead of saying that jazz has indeed come to a sorry state, would do well to reserve judgment until they have heard Thompson You don't have to hear him ride the first rumber. Take the A Train, long before you : te convinced that his phrasing, taste and ideas are those of a first-rate jazz attist. The question is: can he develop them on a harmonica? He does surprisingly well, although occasionally you feel that his harmonica is keeping him from saying all the things he would like to say. The audience is a little noisy and Victor would have done well to cut a little more of it out between numbers. However, there are times when you can't blame anyone for shouting.

SUMMER WITH BACH

Continued from page 31

and finally agreed to release the records through his company, still with the proviso that the pressings be satisfactory to us that is, perfect. I have not heard the final records, but the test-pressings are nearly that, and remember I say this who have in my ears not only the unadulterated sound of the original but also the excellent sound of the tape. The parience and care of both the Haydn Society and Columbia Records, who did the pressing, were exemplaty. A few of the first-run test pressings were okay; many had to be done over five and six times.

Members of the Quodlibet Society agree about practically nothing, but there is one thing I can say for everybody. During the course of recording the Clavier Ubung, we heard the music at least two or three hundred times. We heard it complete, we heard it piecemeal, we heard it fresh, we heard it exhausted, we heard takes that were discouraging, others that were exhilarating, we heard experiments, test tapes, and test records. For months there was scarcely a waking hour when the Clavier Ubung was out of our heads. Yet for no one of us did any single movement ever lose its savor, lose its power. Truly, as Bach said on the title page of the third part, this is music to "refresh the spirits of amateurs, and especially connoisseurs of this kind of music."



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NOTED WITH INTEREST

Continued from page 117

Society of Music Enthusiasts

It's pretty hard to see a ground swell when you are swimming in the ocean. Just so, it is hard to report just what is going on with the Society of Music Enthusiasts. Too much is going on in too many different places, and the waves, so to speak, are yet to pound the shore.

In one area, volunteers are showing up by the fistful, all anxious to help in the preparation of program materials. For instance, L. H. Bogen, Executive Vice-President of David Bogen Co., Inc., writes: "I think you have a very good idea in the making, and we are desirous of assisting you. We would be glad to provide lecturers and to sponsor a conducted tour through our plant if a sufficient number of members would be interested in seeing how sound equipment is made."

Here's what we have from Leonard Garduner, of British Industries (importers and agents for Garrard, Wharfedale, and many another): "Needless to say, this is certainly the sort of thing which my company and myself personally would be very interested to cooperate with."

Avery Yudin, of Rek-O-Kut, joins in with: "Count upon us to be of any assisrance in furthering the aims of SME. We think you have a good thing in SME. It is a fresh and sincere approach to the hi-fi music lover. Undoubtedly, ir will stimulate wide interest in the subject. Our best wishes, and call upon us if we can be of service."

William H. Thomas, President of James B. Lansing Sound, Inc., writes: "We are sincerely interested in the SME If there is anything we can do to cooperate in furthering this effort, do not hesitate to let us know." And so on and on.

Looking over the membership roster, there are SME members from nearly every State in the country. Just yesterday an application came in from Goteborg, Sweden! The word is spreading!

For fun we checked the professions represented and discovered music lovers in every nook and cranny of the work-a-day world. Chemists — Reporters — Engineers (all kinds) — Salesmen (all kinds) — Teachers and Professors (of everything) — Pattern Maker — Folding Box Estimator — Accountants — Printers — Geologists — Artists — Journalists — Farmers — Housewives — Lawyers — Doctors (galore) — Dentists — Pharmacists — Forest Ranger — Film Writer — Exterminator — Psychiatric Social Worker — Timekeeper — and a Greensman (what's that?)

Reminds us of the old nursery rhyme: "Richman, poorman, beggerman, thief, Doctor, lawyer, merchant, chief." (We remember another line which no one else seems to — "Tinker, tailor, soldier, sailor"). No tailors so far, but tinkerers a-plenty what else is a hi-fi enthusiast? Soldiers and sailors, also. As a matter of fact, a soldier starioned in France writes, "This day is an auspicious one on which to join

Continued on page 122





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NOTED WITH INTEREST

Continued from page 120

with what will become an organization effecting great purposes for the American Public.' Everyone writing for information on SME is enthusiastic over the whole idea. Some wonder if they qualify (they do!) saying, "We are strictly amateur music lovers in that, while we greatly enjoy listening to music, we don't really know much about it, and we sincerely hope that an SME Chapter will be formed in Portland which we may join." A member in California writes "We are for anything that will get more people to listen to more good music We hope that the Society of Music Enthusiasts will do this " (The Society sincerely hopes so too.)

Chapters are springing up everywhere. Most are still in the formation stage; in case you would like to know who in your vicinity may be forming a Chapter, here they are: R. W. Kainulainen, 1136 Virginia Court, Long Beach 13, Calif.; C. S. Mudge, 311 Russell Blvd., Davis, Calif.; Mary A. Papenheim, 901 Sherman, Denver, Colo.; Dr. Albert Dworkin, 1318 W. 7th St., Wilmington, Del.; James C. Rowe, Voice, Inc., 3662 Coral Way, Miami 34, Fla.; W. W. Sanford, Sound Engineering, 2107 E. Jefferson St., Orlando, Fla.; Dr. Nathan S. Rubin, 1401 Palafox St., Pensacola, Fla.: Clifford B. Lachel, 614 W. Belmont Avenue, Chicago 14, Ill.; J. E. Baker, 7224 Village Drive, Prairie Village, Kan.; Edgar Collins, Jr., 928 Faulkner Avenue Wichita 3, Kan.; J. W. DeCelis, Record Classics, 625 Dumaine St., New Orleans 16, La.; John L. Suter, 18 Dupont Ave., White Plains, N. Y.; Austin K. Gutman, Radio Electric Service Co., 7th and Arch Sts., Philadelphia, Pa.; C. Bartholomew, R.D. No. 2, Gettysburg, Pa.; Robert Polchow, 208 City Bank Branch Bldg., 126 Carondelet St., New Orleans 12.

Canada is more than enthusiastic. There is a chapter already completely organized and holding meetings in Toronto. Its Chairman is Mr. Avie Rotenberg, 19 Melinda St., Toronto 1. Other Chapter-formers in Canada include Em Short of Sound Supply Company, 1115 Granville St., Vancouver, B.C.; Richard McIlroy of 181 Jackson St., W. Hamilton, Ontario; Frank Garside, 312 King Edward St., St. James, Manitoba; C. A. Pollock, Dominion Electrohome Industries, Kitchener, Ontario.

If you want to contact any of the above, we suggest you dtop them a card telling of your interest and willingness to help. They are, undoubtedly busy people and telephone calls take time.

As is more than evident from the foregoing paragraphs, there is much going on in many different fields. The first S.M.E. bulletin has been prepared and is being mailed to members concurrently with mailing of this issue of HIGH FIDELITY. In this connection, will members who are also subscribers to HIGH FIDELITY please not be alarmed because the S.M.E. publication is not bound in their copies of the Magazine. There are a number of complications to this procedure in our stencil department, so for this first issue (only) the bulletin will be mailed under separate cover.

Continued on page 124



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Continued from page 122

Preserving Tape

Quite some time ago, we wrote to tape manufacturers for their suggestions on how to store and care for magnetic tape. Minnesota Mining's R.A. von Behren promptly sent us these suggestions:

"We believe that observance of the following rules for storage of tape will assure satisfactory performance over an indefinite period of time:

1. Avoid storing unboxed reels of tape. The original box provides protection against dust contamination and physical damage to the tape edges.

2. Reels of tape should be stored on edge or lying flat on individual shelves. Stacking many reels one on top of the other should be avoided as the weight may distort plastic reels or damage the edges of the tape.

3. If the relative humidity is subject to large variations, tape storage in sealed metal cans is recommended. The use of dissicants or humidifying agents is not recommended because of the difficulty in controlling the results.

4. Extremes of temperature should be avoided. If the tape must be subjected to extreme temperatures, as in shipment, allow the tape to return to room temperature before running on a machine.

5. Occasional use of the tape improves storage characteristics. Playing the tape on a machine releases strains and adhesions.

6. Avoid excessive tensions in rewinding tape for storage. The tape may become stretched or permanently distorted if wound too tightly.

7. No cleaning is necessary in normal operation. If dust contamination is excessive the tape may be cleaned by wiping with a clean dry cloth while rewinding.

"If the above precautions are observed we believe that the storage life of magnetic recording tape will equal or exceed that of motion picture film. The magnetic retentivity of the tape is, for all practical purposes, infinite, and the major consideration affecting the useful life of tapes is mechanical wear and tear. There have been reports of embrittlement of tape after several months storage, but the true cause of this condition is the prolonged low humidity which prevails in heated areas during the cold winter months. Subsequent storage at normal humidities completely restores the original tape properties."



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ł.

WXHR

Continued from page 48

From the 1/20th horsepower motors. cartridges, the connections are to the modified Scott preamps and thence to the Raytheon consolette. Magnecord tape equipment is used for in-the-field interviews.

The transmitting equipment is all custom-built by an equipment-manufacturing organization headed by WXHR-owner Frank Lyman. So too is the high-fidelity FM tuner used as an air-check monitor receiver; also the equipment used as a studio-transmitter link between the Woburn studios and those in Cambridge. The studio monitor speaker is a University Diffusicone mounted in an Electro-Voice corner enclosure.

As has been mentioned, every record is checked on receipt. Optimum positions for equalization and tone controls² are jotted down on the label for ready reference at broadcast rime. Most of the time, the tone controls are held flat; the equalization control is sufficiently flexible. Sound is reported by almost everyone who has listened to WXHR to be superlative, yet Thornton is not entirely satisfied. He wants to add a very slight echo chamber effect to some records. He says disks recorded in French studios, particularly, sound very boxy and unlive. "I want to give them the concert hall feeling. I want to bring them to life. After all, that is my entire objective: to bring all the wonderful music in the world to life in the homes in and around Boston."

²See Noted With Interest in this issue for average settings determined by WXHR.

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MODEL 9T-3M COST \$59.75

EQUIPMENT



LONDON NEWSLETTER

Continued from page 44

MR. H. DAVIES, engineer in charge of the BBC Recording Research Section, in his recent Presidential address to the B.S.R.A. dealt with the international standardization of sound recordings, particularly for programme exchange between broadcasting organizations.

Many factors have influenced the standards finally adopted, after innumerable discussions, by the C.C.I.R., the International Radio Consultative Committee, a perma-nent body of the International Telecommunication Union, Berne, Switzerland. For example, the turntable speed tolerance for 78 rpm had to depart from the customary 0.5 per cent with 33 1/3 rpm. to 0.7 per cent, as a 180 bar stroboscope on 50 c/s mains and a 216 bar type on American 60 c/s mains gives exactly 33 1/3 rpm when the spokes appear stationary, and the usual 77 bar stroboscope for 50 c/s. and 92 bar for 60 c/s. give 77.92 and 78.26 rpm. On the question of magnetic tape speeds, a standard of 30 inches per second was chosen instead of 77 cm./sec., as it is obviously easier to reduce capstan diameters of 77 cm. machines than build-up capstan diameters in 30-in. tape recorders.

Another difficult topic was recording characteristics, said Mr. Davies. He defined this term as the output - disk groove velociry, film density or area, or surface magnetic induction of tape - produced by constant input. Corrections or modifications made outside these limits were not considered. A primary consideration was optimum signal/ noise ratio, but this characteristic so obtained held only for single tones and might have to be altered by other factors, for instance, the difference in power levels in vowels and consonants of various languages. Norwegian speech shows a tendency to overload at high frequencies. The optimum curve would give the least distortion over the frequency range for a specified background noise.

Mr. Davies explained that these points applied only to the characteristic selected by broadcasting organizations for their own use as commercial record manufacturers were supplying a public consumer whose reproducing equipment characteristics varied over much wider limits than broadcast ttansmitters.

The big snag encountered in standardizing inagnetic tape recording was that the intensity of magnetization could not easily be measured by visual means, either microscopic inspection or the Buchmann-Meyer image used in disk recording. It was, therefore, difficult to isolate the performance of the playback head from that of the actual tape. Early work used equalizers to correct head losses due to the finite gap and eddy currents. Recent BBC research using a single copper conductor as a playback head had made practical a more accurate separation of the iron losses and a clearing-up of certain anomalies, to such an extent, that it is now possible to derive the tape magnetization by three independent methods.

Continued on page 128

the TURNTABLE

is the HEART of any HI-FI SYSTEM

The finest amplifier, pickup and speaker that money can buy will not give you good reproduction if your turntable has excessive wow, hum or rumble!

Continuing surveys indicate that in 90% of custom installations in the homes of leading "audiophiles," a precision turntable is selected in preference to a record - changer, and in almost every case, the turntable is made by REK-O-KUT.

The surveys also disclose that a precision turntable is being added to existing sound systems, where the original installation included a record-changer.

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LONDON NEWSLETTER

Continued from page 126

Although the standards so far published refer only to 15 and 20 inches per second, much useful work has been done here to establish eventually an international standard for $7\frac{1}{2}$ ins.

CURRENTLY, more than 18 million "popular" records (excluding all classical music) are being sold annually in Great Britain. One of the big-sellers here is Charlie Kunz, a quiet style pianist, whose disks sell between 30,000 and 40,000 per title. As announced in my letter in the Summer, 1952 issue, the famous Dutch Philips company is entering the record field and the first issue is due for release in England mid-January, 1953. Due to their tie-up with American Columbia, rhe Philips label will carry such names as Guy Mitchell, Johnnie Ray, Frank Sinatra, Doris Day, and British artists like Gracie Fields, David Hughes and Jean Carson, as well as music by the New York Philharmonic and the Philadelphia Symphony Orchestras.

HAD the pleasure a few weeks ago of visiting the new British factory of Grundig (Great Britain) Ltd. in the environs of London at the invitation of Mr. John M. Ridley, Advertising and Publicity Manager.

This company is producing a portable magnetic tape tecorder, of German origin, known as the "Reporter" (Type 500L). The price is 75 guineas here.

At the time I was shown round the factory, actual full-scale production had not commenced, only assembling units sent over from the German parent company, but as soon as possible the entire machine, including cabinets, will be manufactured in this country. The sales of this little recorder have been most impressive and the factory's output of 70 per day was being consumed easily.

The valve sequence employed in the unit is as follows: all English red Mullard E type—EF.40 — ECC.40 — EL.42 — EL.42 — EM.34. Amplifier output 2.5 watts. Tape speed 7½ in. A condenser microphone is supplied, but a moving-coil model will be fitted on later models. Also, early in 1953, a two-speed (3¼ and 7½ ins.) console model (Type 700C) will be marketed. These Grundig recorders have a variety of novel features and accessories, including simple push-button control, which are strong selling points.

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Sec. Res.	List Pric o	SUBOUNCER UNIT
bin. All anchored bility in indicate charac-		
ents hav- f special ave per- le items uipment.		121

SUBOUNCER	UNIT				
Dimensions					
Weight		 	0)3 Ib.	

Туре	Application	Le	vel	Pri, Imp.	D.C. in Pri.	Sec. Imp.	Pri. Res. S	ec. Res,	List Price
*50-1	Input	-de	4 V U	200 50	0	250,000 62,500	16	2650	\$6.50
\$0-2	Interstage/3:1	-	4 V.U	10,000	0	90,000	225	1850	6.50
*SD-3	Plate to Line	Ť	20 V.U.	10,000 25,000	3 mii. 1.5 mil.	200 500	1 300	30	6.50
\$0-4	Output	+	20 V.U.	30,000	1.0 mil.	50	1800	4.3	6.50
\$0.5	Reactor 50 HY at	1 mil (.C. 3000 d	ohms D.C. Res.					5.50
SO-6	Output	+	20 V U	100,000	.5 mil.	60	3250	3.8	6.50

SO-6 Output "Impedance ratio is fixed, 1250:1 for SO-1, 1:50 for SO-3. Any Impedance between the values shown may be employed.



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HEARING AIDS AND ULTRA-MINIATURE EQUIPMENT FOR

UTC Sub-SubOuncer units have exceptionally high efficiency and frequency range in their ultra-miniature size. This has been effected through the use of specially selected Hiperm-Alloy core material and special winding methods. The constructional details are identical to those of the Sub-Ouncer units described above. The curves below show actual characteristics under typical conditions of application.

	Type *SSD-1	Application	Le	vel	Pri. Imp.	0.C. in Pri.	Sec. Imp.	Pri. Res. Sec. Res.		List Price
		Input	+	4 V.U.	200 50	0	250,000 62,500	13.5	3700	\$6.50
and here	SS0-2	interstage/3:1	-÷-	4 V.U.	10,000	0	90,000	750	3250	6.50
	•SS0-3	Plate to Line	+	20 V.U.	10,000 25,000	3 mil. 1.5 mil.	200 500	2600	35	6.50
	SS0-4	Output	+	20 V U	30,000	1.0 mil.	50	2875	4.6	6.50
	SS0-5	Reactor 50 HY at	l mil	D.C. 4400	ohms D.C. Res.					5.50
SUB-SUBOUNCER UNIT	SS0-6	Ouptut	+	20 V.U.	100,000	.5 mil.	60	4700	3.3	6.50
Dimensions7/16" x 3/4" x 5/8" Welght	impeua	nce ratio is fixed, 12 employed.	250:1	for \$SO-1,	1:50 for SSD-3	. Any impe	dance betwee	en the values	s shown	

SS0-4



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SCHUBERT: Symphony No. 2 in B Flat Major The Pittsburgh Symphony Orchestra

MOZART: Serenade No. 10 in B Flat, K.361 The Los Angeles Woodwinds

