HiFi/Stereo Review
MARCH 1965 - 50 CENTS

SPECIAL! TAPE-RECORDER ISSUE
HOW TO CHOOSE THE RIGHT TAPE RECORDER
WHAT YOU SHOULD KNOW ABOUT BUYING TAPE
THE SECRETS OF TAPE-RECORDING CHILDREN
SIGNAL-TO-NOISE RATIO IN RECORDER
For bird-watchers, beach bunnies, private eyes, spies, dictators... and you!

For Connoisseurs Of Sound

CONCORD 330

the world’s first voice-operated tape recorder! At the beach, in the office, at home or in your car: you’ll find all sorts of “hands-free” uses for the portable 330... applications not possible with an ordinary recorder. You don’t even have to be there. Sound starts it; sound stops it. Just set it and forget it! The 330 is packed with features: automatic slide projector advance; automatic Synctrol for home movies and slides; automatic self-threading too! Up to 6 hours playing time on 5” reels; 2 speeds; VU meter/battery life indicator and an optional AC adaptor. See your Concord dealer right away for a demonstration. Under $200.00*

Other Models to $450.00.

* Prices slightly higher in Canada.
...UNEXCELLED... Audio $30.00 down less than $10.00 a month.*
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Send me all the literature on McIntosh products.

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CIRCLE NO. 40 ON READER SERVICE CARD
Compatibility and the LAB 80...

From its Garrard-designed, Garrard-built Laboratory Series® motor...

to its 12 inch cast and balanced turntable

...every part of this entirely compatible motor/drive/turntable system contributes to the excellent performance of your records.

To insure overall superiority, performing with the latest wide range speaker systems and highly refined amplifiers (including solid state transistorized equipment), the Lab 80 Automatic Transcription Turntable is built to an exceptionally high order of precision... each segment carefully inter-designed with the other related parts.

Separate though they may be in appearance and function, the Lab 80 motor, turntable, and drive mechanisms are actually a unified system... so meticulously engineered, and so silent, that they will not add the slightest noise or distortion at any frequency or volume level.

Constant, reliable speed, of course, is the first essential. Recent tests, now known to the entire industry, have confirmed the traditional Garrard viewpoint that the motor type (induction or hysteresis) is not the key to fine reproduction. Actually... it is compatibility—the correctly engineered relationship of the motor to the particular turntable/drive mechanism—plus meticulous manufacturing—which determines outstanding results.

The Lab 80 is powered by the unsurpassed Laboratory Series® shaded 4-pole motor (with dynamically balanced armature) designed and built entirely by Garrard. It will keep its speed within rigid NAB standards, even through the unlikely line voltage variation of 95 to 135 volts. The assumed belief or contention that only a hysteresis motor can maintain speed with such reliability is simply untrue. An ingenious suspension system of rubber antivibration devices and damping pads isolates the motor from the unit plate, and frees the Lab 80 from any vestige of vibration which might affect record reproduction.

But performance which begins with an excellent motor must be carried through to completion by an equally excellent turntable. In the Lab 80, the non-magnetic cast turntable is 12 inches in diameter and extremely heavy. In itself, it is an impressive example of precision craftsmanship. Each individual turntable is statically and dynamically balanced to eliminate any possibility of wow (uneven musical pitch), or rumble... and to insure precise, constant speed through flywheel action. Every detail has been considered in its relationship to ideal performance.

Even the lowly turntable mat is an example. It is formulated from a remarkable new antistatic material which tends to dissipate the electrical charge on records and prevent the accumulation of dust. Dust is one of the persistent causes of record wear as well as unwanted noise, and yet this obvious problem, until now, was not approached in even the finest transcription turntables.

The meticulous attention to precision in design and manufacturing... apparent in all the features which distinguish the Lab 80... has established its compatibility with other advanced components, and will add to your satisfaction with the entire music system.

There's a Garrard for every high fidelity system.

Garrard®
WORLD'S FINEST

IMPORTANT READING: New 32 page Comparator Guide. For complimentary copy, write Garrard, Dept. GC-15, Port Washington, N.Y.


CIRCLE NO. 103 ON READER SERVICE CARD
EDITORIALLY SPEAKING
by FURMAN HEBB

AND HEREBY we are with our sixth consecutive March tape issue on the subject of tape recording—which is something of a testimonial to a period of remarkable technical advancement and public interest in home tape recording. I don’t think anyone dreamed, ten years ago, that in only a decade the well-appointed component hi-fi system would include not just a tape recorder but a four-track stereo recorder, and one capable of making recordings only marginally inferior to those produced on the finest professional equipment. But if the technical achievement of tape-recorder designers has been impressive in terms of sonic excellence, it has been no less so in terms of what is sometimes called “human engineering”—or more plainly, convenience. I am now thinking mostly of two developments that have reduced the amount of manual tape-handling—which, to my mind, has always been the bane of tape recording. The first innovation is automatic tape-threading (onto the take-up reel). Some of the newer recorders offer this as a built-in feature, and those that don’t can be equipped with a Scotch self-threading take-up reel for the princely sum of a dollar and a half. If you use a tape recorder frequently (or even infrequently), this is about the best dollar-fifty investment you will ever make. The other new convenience feature is automatic tape-reversal—whereby, of course, after a tape has been run through the recorder in one direction, it is automatically stopped and then run through in the opposite direction, saving you the trouble of climbing out of your easy chair and switching the two tape reels by hand. Here, unfortunately, a dollar and a half won’t help you much, because either the recorder has automatic reversal or it doesn’t.

On the subject of tape-recording convenience, I would be remiss not to mention the two tape-cartridge systems intended for home use, for these offer more handling convenience than any reel-to-reel arrangement. The two systems here, of course, are the RCA and the 3M-Revere—the two, unfortunately, being incompatible with one another. Although both of the systems are beautifully convenient to use, the 3M-Revere has the additional unique facility of automatic cartridge-changing operation. That is, it changes cartridges the way a record changer changes records.

The dynamic, ever-expanding tape field offers the prospective purchaser an embarrassment of riches, as John Milder points out in his article in this issue. But as always in such circumstances, this is the best insurance that the buyer will be able to find precisely what fits his needs—and at the lowest possible cost.

Coming in April’s HiFi/Stereo Review—On Sale March 22

A BUYER’S GUIDE TO STEREO RECEIVERS

THE HAZARDS OF HARPSICORDS

HOW TO PRODUCE A SMASH FLOP

AN INTERVIEW WITH HERMANN SCHERCHEN
With the new Royal Grenadier

You can turn down the sound

You can sit to the right of it

You can sit behind it

You can turn up the sound

You can sit to the left of it

You can examine it

And you can say so much about it

1. 15" mass loaded woofer with floating suspension and 4" voice coil.
2. Sound absorbent rear loading.
3. Die-cast mid frequency-high frequency full dispersion acoustic lens.
5. Imported marble.
7. Full presence mid range direct radiator.
8. Exclusive non-resonant rigidized heptagonal sonic column.
9. World's largest (18 lbs.) speaker ceramic magnet structure.
10. Front loaded Horn 360° aperture throat.
11. Complete symmetry of design with terminals concealed underneath.
12. Dimensions: height 29" — diameter 22".

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MARCH 1965

CIRCLE NO. 28 ON READER SERVICE CARD
DYNACO introduces THE stereo recorder for the connoisseur

$498

If you are one whose stringent requirements or passion for perfection has been convinced of the need to spend at least $100 for a quality recorder, and if you have felt that nothing available to date for less than $1000 could meet your demands, then give serious consideration to the Dynaco Brocord 2000.

Judge it first on absolute performance—live recording is the most exacting test for the complete recorder—then luxuriate in its many exclusive features:

- 3 stereo mixing inputs with slide-type controls and plug-in-multiple mike conversion.
- Low impedance transformer coupled mike input.
- 8 watt amplifiers for PA use, home music system, monitor speakers, or low impedance headphones.
- Pushbutton selection of echo, sound-on-sound and unique synthetic monitoring from half the record head.
- Electronically protected fully transistorized plug-in electronics.
- 3 speeds, 3 heads, 100 KC bias, synchronous drive.

Only a comparative evaluation in use with the finest associated components will effectively demonstrate the superior performance and unique flexibility of this superb instrument.

Write for full specifications and ask your dealer for a demonstration.

DYNACO INC.
3912 Powelton Avenue,
CIRCLE NO. 23 ON READER SERVICE CARD

LETTERS TO THE EDITOR

Musical Stamps
- Orchids to you for your outstanding January cover. The world-wide stamps are a tribute to music, to immortal composers, and to HiFi/Stereo Review. Keep up the wonderful work.

N. E. Nelson
Milwaukee, Wis.

- I must commend William Anderson for his article "Music in the Mailbox" in the January issue. It is interestingly written and factually correct—this latter the more unusual since the author is, by his own admission, new to the field. I have been collecting musical stamps for many years, and have read much that has been written on the subject, and it is amazing how many stupidities get into print.

However, I have to point out one omission. Mr. Anderson made—this only because he says that opera singers are not well represented on stamps. In January of 1961, Romania issued a set of nine stamps featuring famous singers of the Romanian National Opera. All but one are well-known opera singers. The set is numbered 1605-1613.

Jacques Posell
Cleveland Heights, Ohio

According to Mr. George Gazzio, HiFi/Stereo Review's consultant on musical-stamp matters, there is indeed a 1964 Romanian series featuring such famous singers as Elena Teodorescu (the teacher of Bidu Sayao), Ion Bajenaru, Aurel Rintilă, Ilea Athanasie, Hanilea Danyle, George Palescu, Traian Groziu, N. Leonard, and composer George Stephanescu, founder of the Romanian Opera.

The View from the Continent
- It is extremely unlikely, in my opinion, that your magazine will ever stir up any enthusiasm among its European readers if you continue to print reviews as exasperating as David Hall's remarks on Furtwängler in the December issue. It is distressing to see the greatest conducting genius of this century reduced to the status of a charlatan by an obviously bewildered pipsqueak of a critic.

Hardly anywhere but in HiFi/Stereo Review must one submit to a comparison of a musician of the scope of Furtwängler with a practical joker like Stokowski or the quarrelsome master-sargent that was Toscanini. It might have made an excellent joke, but no: the tone is serious, and an attempt is made to persuade the reader of the accuracy of what is asserted.

Consequently, one must ask if there is anyone at your magazine who has any clear idea of what music is (you often seem to confuse it with high fidelity) when it is signed by Bach, Mozart, Beethoven, Brahms, Bruckner, or Wagner rather than by Copland and Grofé.

It seems that your contributors still have quite a distance to go if they are to assimilate a musical culture that now escapes them—and one of which Furtwängler was precisely the perfect interpreter.

If one remembers, in addition to this painful episode, Frederic Grunfeld's long belch on the subject of Richard Wagner in your December, 1963 issue, there definitely remains nothing for the aware European to do but to burst out laughing—a laugh as vast and final as that of Zarathustra.

Henri-Jean Testas
Paris, France

Stokowski Partisan
- In David Hall's review of the newly released Furtwängler recordings, I read of the "conductors who dominated the podium during the 1940's, the others [in addition to Furtwängler] being Toscanini, Beecham, Walter, Monteux, Koussevitzky, Mengelberg—all now dead—and the still very active Leopold Stokowski." I was struck by the sad fact that Maestro Stokowski's repertoire is very meagerly represented in the current record catalog.

I feel that this last representative of the Golden Age of conducting should be given the chance—such as was given many times over to his late contemporaries Toscanini, Walter, and others—to have his interpretations preserved for posterity by the latest recording techniques. I trust that other readers of your magazine will second this suggestion.

James M. Cartwright
Denton, Texas

Coe Glade's Carmen
- Bravo Mr. Thomas Matthews, who called attention to Coe Glade's Carmen in your December "Letters to the Editor" column. As one whose memories of interpreters of the role go back to Ina Bourskaya and Rosa Ponselle, I say without qualification that Miss Glade's was the greatest Carmen of them all. I saw and heard her in the role many times, and she remains the only Carmen who made the last act thoroughly credible. Indeed, unless Miss Glade comes out of retirement to sing the part again, I am not at all certain that I care to see and hear anyone else in the role.

One slight correction: Miss Glade sang the role not only more than five hundred times, but incredible as it may sound, more than two thousand times. That is

(Continued on page 10)
HERE'S A CONVENIENT, ECONOMICAL WAY TO BUILD A STEREO TAPE LIBRARY

IF YOU ARE ONE OF THE FORTUNATE PEOPLE Who own 4-track stereo tape playback equipment, you know the thrill of the near-perfect fidelity, the unsurpassed sound of tape. Now you have an excellent opportunity to build an outstanding collection of superb stereo tapes at great savings through the most generous offer ever made by the Columbia Stereo Tape Club! By joining now you may have ANY FOUR of the tapes described here - sold regularly by the club at prices as low as $3.98 each - for only $5.98!  You need make no further commitment. Your only membership obligation is to purchase 4 tapes from the more than 150 offered in the coming 12 months. After that, you are free to discontinue your membership at any time.

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My Old Flame - Frenesi - 3 more
FREncH - 3 more

PETROUSHKA
1903. "A work of genius - colossal talent!" High Fid.

RAY CONNIFF
Our Day In The Sun - New York "Swing" - I'll Say It Again
MY OLD FRIEND - 4 more

1250. Also: Third Man, Caravan, Sat- titude, etc.

STRAVINSKY'S CONDUCTS STRAVINSKY
THE FIREBIRD - 4 more

1077. A master of tape instrumentation...N. Y. Herald Tribune

1547. Also: Fly Me To The Moon, Nina Never Knew, etc.

1271. A say It, Too Young To Go Steady, Laura, etc.

TONY BENNETT
I Left My Heart In San Francisco

1566. World's Fair, Kipling, Esquire, collected organism.

BLOOD SWEAT AND TEARS
LOOKING FOR A LEADER OF JOHN WYBRAND'S BAND - 5 more

1607. Also: The Wonderful World of Andy Williams
A Tool Never Learns
Pennies From Heaven - 3 more

BRYN TERFEL
"...utterly thrilling performance..." - HiFi/Stereo Review

1542. Also: Medium - 5 more

JACK JONES
WIVES AND LOVERS

1605. America's most Unispherical, Jittery, collected organism.

MUSIC OF JUBILEE
Back Fronts for Organ and Orchestra - E. Power Biggs

JACK JONES
"...stunningly beautiful..." - High Fid.

RAY CONNIFF
My Orchestra and Chorus
The Happy Best

1512. Also: Excellence, from La Desse, The Apartment, etc.

DAVE BRUBECK
TIME CHANGES

1602. Also: Meat, My Old Flame, ... - 5 more

ANDRE PREVIN
LIKE LOVE

1517. Also: Wheel Of Fortune, Blueberry Hill, Cry, etc.

PAUL BUNYER
CIRCUS MUSIC

1564. Also: The Red Robe, Man of War, The Ten Commandments

THE WORLDS' WORST OF ANDY WILLIAMS

1315. Also: Dream, This Is All I Saw, Noelle, 12 In All

1502. Also: What A Damned World, Yes, You Can Swing

BERRY GORDON CONDUCTS BERNSTEIN
LIVE FROM THE SYMPHONY HALL - 4 more

1600. Also: The Wonderful World of Andy Williams
My Little Red Book
Pennies From Heaven - 3 more

1501. Also: The Happy Beat - 5 more

1606. Also: Land Of Hope and Glory, This Is My Country, etc.

THE SECOND BARBER STRAUSS AND ALBENIUS
DOWN WITH LOVE MY CHILDREN WILL TRY - 5 more

1025. Also: Return To Paradise, Beyond The Reef, etc.

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Just drop the end of the tape over this reel, start your recorder, and watch it thread itself! Unique Scotch® tape process automatically threads up tape of any thickness, releases freely on rewind.

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University Classic Mark II (Provincial)  
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University is made for those who listen—who demand the full-bodied dynamic quality that is truly high fidelity. University sound is alive and unpressed, a true re-creation of the original performance as it was meant to be. It is whole sound, the sweet and the bitter — the calm and the storm — vibrant, pulsating and uncommonly real! So...if you really care, if you truly want the real sound — stand aloof from the common "sound-alikes"— listen to University for a refreshing difference. There is a University for everyone, for every size room and budget, for every style of home decor. Shown here are only three (we have nine more). Send for the new illustrated catalog of the world's largest (and liveliest) selection of high fidelity speakers and systems. It's FREE, and we'll also include the all new Guide to Component Stereo High Fidelity.

University Mini-Flex II  
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Triple your tape recording fun... buy three tape reels—not just one!

You'll have more fun with your tape recorder if you use it more frequently. Always keep an extra supply of tape on hand, so that you're always ready to record!

Take this good advice: When you buy tape, buy at least three reels. And buy brand-name tape, so you can be confident of its quality, certain it won't harm your recorder.

Of course, we hope you'll choose Tarzian Tape. We thoroughly test other brands along with our own—and the impartial equipment in our labs assures us that you can't do better.

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Before you send money to any record club, join the best one for 3 months, free!

Now, without paying a cent or obligating yourself in any way, you can join for three months the one record club that has every single advantage and none of the disadvantages of all the others—including those advertised in this and similar publications. (Your trial membership applies equally to phonograph records and 4-track recorded tapes.)

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... You and your camera—working together. You pick the subject, compose it, perhaps choose the exposure. Up to this point, whether it's a good picture or not is within your control. But once you press the button—the difference between a good picture and a bad one is up to the camera. The camera and its lens, working together, contribute contrast, resolution and sharpness.

**Good contrast** means that there is a sharp distinction between adjacent light and dark areas. Assume that your picture includes a black and white checkered floor. If contrast is good, the separations between the black and white squares are clean and sharp. If the camera lens does not have good contrast, these lines will be fuzzy, no matter how carefully you have focused.

**Resolution** is the faithful recording of fine details. Take that photo of your favorite aged aunt. Poor resolution will erase the fine lines and wrinkles from her face, robbing it of all character. Good resolution will show every line and mark with perfect fidelity.

**Sharpness** is the result of good contrast and good resolution. It's a subjective value, but the snappy crispness of a really good picture is unmistakable. To get good contrast, resolution and sharpness, you need the right combination of a fine lens and a well-made camera. This is where precision craftsmanship of Zeiss Ikon camera bodies and Carl Zeiss lenses make the difference. It's this craftsmanship, this precision and care, that accounts for the difference between a $100 camera and one of the same type that lists for $260.

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35mm single lens reflex camera with its Carl Zeiss Tessar f/2.8, 50mm lens, for example, is a meticulous matching of lens and camera body. The lens is mounted with perfect precision to assure that its optical axis is at an exact right angle to the film plane. The pressure plate inside the back cover of the camera is perfectly tensioned to keep the film absolutely flat and vibrationless during exposure. The film track in the back of the camera body is precision tooled to guide the film so that each individual frame is aligned without a wiggle.

The Zeiss Ikon Contaflex Super B is the ultimate in workmanship—the ideal wedding of fine Carl Zeiss optics to a precision-built, rugged camera body by Zeiss Ikon. Remember—almost any picture can be taken with any camera—but for sharp, crisp pictures with good resolution and contrast, you want a Zeiss Ikon Contaflex Super B.

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**What makes a good photograph?**

- **Good contrast** means a sharp distinction between adjacent light and dark areas.
- **Resolution** is the faithful recording of fine details.
- **Sharpness** is the result of good contrast and good resolution.

These factors contribute contrast, resolution, and sharpness to a photograph. The right combination of a fine lens and a well-made camera is crucial. Precision craftsmanship is essential for capturing the details that make a good picture.
KLH makes speaker systems that sell from $50 to $1140. Each of these systems delivers the cleanest, best balanced performance you can buy for the price.

But the one by which we judge every new product we make is the Model Six.

How does such a modestly priced speaker become the standard bearer for an entire line?

It isn't just that the Six is a magnificent speaker. More than any other speaker we have ever made, the Model Six embodies the qualities that the name KLH stands for — an engineering approach that separates the trivial from the important, cuts through the accepted to find the exceptional — a patient, painstaking effort to give you cleaner, finer performance at lower cost.

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sharpens their axes and let them fall hard and heavy.

K. OPPEL
Costa Mesa, Calif.

Correction
● Contrary to what Joe Goldberg says in his December review of "Odetta Sings of Many Things," it was Martin Hoffman who penned the music to Woody Guthrie’s Deportee, not Martin Goodman.

KATHY KAPLAN
Oceanside, N. Y.

Myers on the Piano
● Thanks for publishing "How to Play the Piano" by Arthur Myers (January). I got a terrific belt out of it. As I read the article on Christmas afternoon, I considered it a delightful Christmas present from Mr. Myers and from HiFi/Stereo REVIEW.

HARRY GLIDDEN
Auburn, Me.

● It appears that author Arthur Myers doesn’t even begin to fathom the depth of his tragic experiences with piano playing: the half of his repertoire that he believes to be classical in nature dissolves into nothingness, because L. V. Beethoven never composed a piece called Gertrude’s Dream.

According to Willy Hess’ catalog (1957) of the Beethoven works not contained in the Breitkopf & Haertel Gesamtausgabe, Gertruds Träumwalzer is one of eight waltz arrangements or "compositions" published after 1852 in Leipzig, and all of them are considered spurious ascriptions or forgeries. Nottebohm’s thematic catalog of Beethoven’s works (1868) and Kinsky-Halm’s Great Catalog of all completed works of Beethoven (1955) also reject the Dream Waltz as faked or "not genuine."

Yet I would like to encourage Mr. Myers to continue along the thorny paths of keyboard mastery. As long as his struggles inspire such amusing reflections, it doesn’t matter at all who forged his repertoire. Even Beethoven himself would have agreed that the Dream Waltz must not be played too fast.

FRITZ A. KUTTNER
New York, N. Y.

Flanagan’s Songs
● I was disappointed in William Flanagan’s October survey of the outstanding song literature by American composers because he did not include his own songs. Two of these, the haunting love song Send Home My Long Stayed Eyes, and the Valentine to Sherwood Anderson, are included in Stand’s intriguing two-record set (SLP 411/2) devoted to American song. Mildred Miller performs the Flanagan songs with full artistry, and the reward is a memorable experience indeed.

RICHARD HUNDLEY
New York, N. Y.

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MARCH 1965
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Speaker Muting/Off Switch

Q. I would like to add an off position to the muting switch shown in the November 1961 "Sound and Query" column. How can this be done?

CHARLES GOODESTEN
Los Angeles, Calif.

A. Instead of the standard double-pole, double-throw (DPDT) toggle switch originally specified, use a Lafayette Radio DPDT switch (Stock Number 9966148) with a center-off position. These cost 49¢ each. The ohmic value of the resistors (R) should be approximately three to four times the impedance of your speakers, and the wattage rating should be at least half your amplifier's power rating. The greater the ohmic value of the resistors, the greater the muting effect will be. When wired as shown in the diagram (you can either use the switch's own screw terminals, or else solder to the lugs), the resistors will be in series with each speaker and will cause substantial reduction in volume when the toggle switch is set to one side position. When the toggle switch is in the other side position, the resistors will be out of the circuit and the volume will be normal. When the toggle is in the center position, the speakers will be shut off completely and the amplifier will be loaded by the two resistors. The resistors will not present an accurate impedance match to the amplifier, but this is of no importance.

Record Pre-Echo

Q. On some of my records I hear, very faintly, the opening chords of music a few moments before the music comes through at normal volume. Is there any way I can eliminate this?

CLEMENT RICHARDS
Culver City, Calif.

A. The effect you notice is called pre-echo, and it is caused either by a high-amplitude groove modulation causing the walls of an adjacent quiet groove to be slightly modulated by the signal, or, infrequently, by the use of a master tape that suffers from print-through in the loud passages. Assuming that your cartridge and stylus are in good condition, about all you can do is try another record.

Record Improvement

Q. I have noticed that when a record is first played, the reproduction is not clean in certain passages—the horns, for example, may sound fuzzy. But then, after the record has been played a number of times, the previously fuzzy passages seem to clear up. Am I imagining things?

DICK FIELD
Bedminster, N. J.

A. If you are imagining things, then your fantasy is shared by a number of other critical listeners. Several authorities have suggested that there are minute irregularities in the record-groove walls that become smoothed over or burnished after a number of playings. It has also been suggested that cartridges that track at 3-5 grams will perform this smoothing out, and that cartridges tracking at lighter forces will not.

Changer-Amplifier Separation

Q. I am planning a hi-fi installation and would like to know whether it is all right to locate my record player about twelve feet away from my preamplifier. If so, should any special type of cable be used between the player and the preamplifier, and what effect, if any, will the distance have upon performance?

HERBERT D. YOUNG
Glen Rock, N. J.

A. There are two factors to be considered in your installation. The most important is how your particular phono cartridge will react to long lengths of shielded cable. A shielded cable acts as a capacitor connected across the cartridge's terminals, and the longer the cable, the larger the capacitor. Some cartridges react very badly to capacitance and develop a mid-range resonant peak and a severe rolloff of high frequencies. Other cartridges (usually low-impedance types) are relatively insensitive to capacitive load. The manufacturer of your cartridge should be able to advise you on this point.

In any case, when dealing with phono cable lengths on the order of ten or twelve feet, it is important that you use a low-

(Continued on page 20)
If, in 1631, you went to rent a horse from Thomas Hobson at Cambridge, England, you took the horse that stood next to the door. And no other. Period. Hence, Hobson's Choice means No Choice.

And, as recently as 1961, if you went to buy a true high fidelity stereo phono cartridge, you bought the Shure M3D Stereo Dynetic. Just as the critics and musicians did. It was acknowledged as the ONLY choice for the critical listener.

Since then, Shure has developed several models of their Stereo Dynetic cartridges—each designed for optimum performance in specific kinds of systems, each designed for a specific kind of portemonnaie.

We trust this brief recitation of the significant features covering the various members of the Shure cartridge family will help guide you to the best choice for you.

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The ultimate 15° tracking and Bi-Radial Elliptical stylus reduces Tracking (pinch effect), IN and Harmonic Distortion to unprecedented lows. Scratch-proof. Extraordinary quality control throughout. Literally handmade and individually tested. In a class by itself for reproducing music from mono as well as stereo discs.

**IS YOUR BEST SELECTION**

If your tone arm tracks at 1 1/2 grams or less (either with manual or automatic turntable)—and if you want the very best, regardless of price, this is without question your cartridge. It is designed for the purist... the perfectionist whose entire system must be composed of the finest equipment in every category. Shure's finest cartridge. $62.50.

**THE CARTRIDGE**

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A premium quality cartridge at a modest price. 15° tracking angle conforms to the 15° RIAA and EIA proposed standard cutting angle recently adopted by most recording companies. IN and Harmonic distortion are remarkably low... cross-talk between channels is negated in critical low and mid-frequency ranges.

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If you seek outstanding performance and your tone arm will track at forces of 1/2 to 1 1/2 grams, the M55E will satisfy—beautifully. Will actually improve the sound from your high fidelity system! (Unless you're using the V-15, Shure's finest cartridge.) A special value at $35.50.

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A top-rated cartridge featuring the highly compliant N21D tubular stylus. Noted for its sweet, "singing" quality throughout the audible spectrum and especially its singular recreation of clean mid-range sounds (where most of the music really "happens"). Budget-priced, too.

**IS YOUR BEST SELECTION**

If you track between 1/4 and 1 1/2 grams, the M44-5 with .0005" stylus represents a best-buy investment. If you track between 1 1/2 and 3 grams, the M44-7 is for you... particularly if you have a great number of older records. Both have "scratch-proof" retractile stylus. Either model under $25.00.

**THE CARTRIDGE**

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A unique Stereo-Dynetic cartridge head shell assembly for Garrard and Miracord automatic turntable owners. The cartridge "floats" on counterbalancing springs... makes the stylus scratch-proof... ends tone arm "bounce."

**IS YOUR BEST SELECTION**

If floor vibration is a problem. Saves your records. Models for Garrard Laboratory Type "A", AT-6, AT-60 and Model 50 automatic turntables and Miracord Model 10 or 10H turntables. Under $25.00 including head shell, .0007" diamond stylus.

**THE CARTRIDGE**

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A best-seller with extremely musical and transparent sound at rock-bottom price. Tracks at pressures as high as 6 grams, as low as 3 grams. The original famous Shure Dynetic Cartridge.

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Now, you can find the CAPS® principle in only one line of speakers—the MAXIMUS SERIES by UTC Sound. Maximus I, for example, is a multi Speaker System with a magnet structure of over 3½ lbs., capable of driving cones 3 to 4 times its size, but designed for maximum critical dampening, in a miniature enclosure. This enclosure with an easily replaceable grille cloth, is finished in Oiled Walnut on 6 sides and can thus be used standing upright or on its side.

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See your high fidelity dealer for a demonstration of the entire Fabulous MAXIMUS Series or write for full details: UTC SOUND DIVISION, 809 Stewart Avenue, Garden City, New York.

MAXIMUS 1

TO BE EXHIBITED in the 1965 Los Angeles High Fidelity Music Show in Exhibit 59E—Ambassador Hotel Cottages, March 7 to 15, 1965.

CIRCLE NO. 57 ON READER SERVICE CARD

capacity shielded cable. A survey of the radio-parts catalogs indicates that the Belden type 8422, which has an outside diameter of 0.23 inch and a rated capacity of 18 micromicrofarads (mμf) per foot, is the most reasonably priced low-capacity cable available. The cable has two conductors within a shield, and a 15-foot spool costs approximately $1.20 (see Allied Radio's 1965 catalog, page 297). When using the 8422 cable, connect the two ground terminals (usually labeled (G and W) of the cartridge to the braided shield and the hot terminals (± and W±) to the inner conductors. There is a possibility that the cartridge's high-frequency stereo separation may be reduced because of capacitive coupling between the two signal wires within the shield. If this occurs, you will have to run two separate lengths of shielded wire. In that case, use only one of the two conductors within the shield, leaving the other conductor unconnected at both ends.

For lead lengths much longer than 10 feet, a very low-capacity coaxial cable (type RG-63B/U), with 10 mμf per foot capacitance, could be used. It has a single conductor (two lengths will be needed for a stereo cartridge), an outside diameter of 0.4 inch, and is priced at about 20c per foot.

Coaxials vs. Separates

Q. I am planning to build my own speaker enclosures rather than buy ready-made systems. I notice that most loudspeakers sold separately are of coaxial or three-way design, yet this type of unit is seldom used in ready-made systems. Which is better for my purpose, a separate woofer, mid-range, and tweeter, or a single coaxial or three-way speaker?

C. W. CHRISTIAN

Waco, Texas

A. For the speaker-system designer, the separate woofer, tweeter, and mid-range provides great flexibility: he can choose from a large variety of combinations and can tailor the system precisely to a specific price and quality level. The audiophile who builds his own speaker system, however, is usually not well enough equipped technically to select suitable matching speaker elements. The loudspeaker companies have done this for him by mounting two or more matched separate speaker elements coaxially. Another advantage of the coaxial type of speakers for the home builder is that it requires only a single cutout in the front panel of the speaker cabinet.

Because the number of queries we receive each month is greater than we can reply to individually, only those questions selected for this column can be answered. Sorry!
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DUAL'S THE FINEST
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**JUST LOOKING**
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- **BASF** of West Germany is introducing its line of recording tapes to the United States. BASF magnetic recording tapes are available with two types of base material, Luwitherm and polyester. Luwitherm, produced solely by BASF, is an unplasticized polyvinyl-chloride film with excellent strength and dimensional stability. It is very smooth and resistant to aging and humidity and temperature variations. Both Luwitherm- and polyester-base tapes are available in long-play and most other standard tape types. Each reel of BASF tape is packaged in a rivet-secured slide-out library-type box, and there are three feet of polyester colored leader plus a metallized strip attached to both ends of the tape. The metallized strip is for those machines having automatic activating devices. BASF tapes can be purchased in multiples of three packed in an Archive Box with three slide-out plastic compartments for the tape. BASF is represented by Compton, Inc., of Waltham, Mass.

*circle 182 on reader service card*

- **Concord** announces the Model 99i, a three-speed, four-track stereo recorder. The transport system provides automatic two-direction record and play through the use of four heads, two for each direction. Solid-state amplifiers are used, and all deck functions are push-button controlled. The recorder has dual illuminated VU meters, built-in automatic sound-on-sound switching and a front-panel stereo headphone jack. The 13-watt stereo amplifier in the machine drives a pair of speaker systems, each housed in half of the recorder's cover. Specifications include a frequency response of 30 to 16,000 cps ± 2 db at 7½ ips, a signal-to-noise ratio of better than 55 db, and flutter and wow of unter 0.15 per cent. Jacks permit connection to external amplifiers or external speakers. The unit comes with two dynamic microphones. List price: $399.50.

*circle 183 on reader service card*

- **Dynaco** introduces a new four-track stereo tape recorder (available both as a portable and as a table-top console) made by Bang & Olufsen of Denmark. The three-speed machine (1⅞, 3⅜, and 7½ ips) is fully transistorized, and has electronic transistor protection. The unit includes two 8-watt (rms) amplifiers with output connectors for two pairs of speakers or low-impedance headphones. Other features include three stereo inputs, (low-impedance microphone, RIAA phono, and tuner), professional sliding input-mixing controls, and push-button selection of echo, sound-on-sound, or tape-source monitor. Frequency response is 40 to 16,000 cps ± 2 db. There is a hysteresis-synchronous drive motor, and automatic shut-off at the end of a reel or within the reel (with metallized tape). Price: portable with two speakers, $525; teak table-top unit with amplifier (but without speakers), $198.

*circle 184 on reader service card*

- **Olson Electronics** has announced a new four-channel preamplifier-microphone mixer, Model RA-657. The all-transistor unit can be used as a preamplifier for a microphone or magnetic-phono cartridge, or to mix up to four input signals from high- or low-level sources. All inputs take standard RCA-type connectors, and a selector switch for high- or low-level signals is provided on each input. Individual volume controls permit blending and mixing signals. The pre-(Continued on page 24)
21 QUESTIONS to ask about any automatic turntable that asks you to spend $99.50

when using the single play spindle...

1. Can you start automatically — with the press of a switch — or, if you prefer, cue the record manually at any position while it's either motionless or rotating? (Or must you always: 1. press one switch to start the record rotating, 2. position the tonearm by eye over the record, and 3. press another switch to lower the tonearm?)

2. Can you interrupt play at any time, with the tonearm returning to its resting post and the motor shutting off... again, automatically? (Or must you instead: 1. press one switch to raise the tonearm, 2. place the tonearm by hand on its resting post, and 3. press another switch to turn off the motor?)

3. Can you change turntable speed at any time during cycling and play? (Or must you first shut the entire machine off?)

when using the changer spindle...

4. If there are records on the spindle, can you interrupt play at any time, return the tonearm to its resting post, and shut the entire machine off... automatically? (Or must you either wait for the last record to drop... or remove all the records from the spindle?)

5. Can you start automatically with a record on the platter, but none on the spindle? (Or must you first place another record on the spindle?)

6. Can you change turntable speed and record size selector at any time during cycling and play? (Or must you first shut the entire machine off?)

7. Will 6½" clearance above the mounting board be enough to insert and remove the changer spindle? (Or must you have up to 9½"?)

in any mode of play...

8. Does it offer you all four standard speeds? (Or must you discard your collector-item 78's, and do without the special material available on 16's?)

9. Can you vary each speed over a 6½% range, letting you adjust the pitch of any record? (Or must you get along without such a unique feature?)

10. Can you use cartridges weighing as little as 2 grams with no effect on tonearm mass? (Or must the tonearm head have a minimum of 6 grams?)

11. Does the tonearm itself weigh just 20 grams? (Or up to almost 50% more?)

12. Has the tonearm been proven to track flawlessly as low as ½ gram? (Or is no such claim made?)

13. When applying stylus force, do you enjoy the precision of continuous dial adjust from 0 grams up, plus the convenience of a direct reading numerical scale? (Or just markers and click stop positions?)

14. Is tonearm bearing friction so minimal (less than 0.1 gram) that anti-skating compensation is effective at less than 1 gram tracking force? (Or is it actually high enough to render anti-skating compensation virtually ineffective at such light forces?)

15. Does the counterweight offer the convenience of both rapid and fine adjust? (Or fine adjust only?)

16. Will the motor maintain speed constancy (within 0.1%) even during prolonged line voltage variations from 95 to 135 volts? (Or will the motor speed actually vary if such line voltage variations last long enough to overcome the flywheel action of the platter?)

17. Will 12½" x 11½" do nicely for installation? (Or must you provide for at least 70% more area?)

18. Can you lift the tonearm from the record during play and place it on its resting post... or restrain it at any time during cycling without concern for possible malfunction or actual damage... thanks to its foolproof slipclutch? (Or are you better advised not to attempt either, because of mechanical linkage between tonearm and cycling mechanism?)

and as for superior performance...

19. Has it been tested and acclaimed by every audio publication as living up to every last claim?

20. Has it earned such acceptance by experienced audiophiles that they have actually traded in their professional-type manual turntables for it?

21. Has quality control been so consistent that it has achieved the astonishing reliability record of 99½% or more perfect, right out of the carton?

Obviously, if you've been considering anything but the DUAL 1009 Auto/Professional Turntable, you haven't been asking the right questions, or getting the complete answers. Write for our informative literature... or just ask any audio dealer. (And if you'd like to spend just $69.50 and still get Dual quality, ask him about the new DUAL 1010 Auto/Standard Turntable.)

DUAL 1009
Auto/Professional Turntable

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Night on Bald Mountain (8 to 10 P.M. Only)
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Sinatra Swings (Condensed)
Vivaldi's Four Seasons (Thru Oct. 21)

Well! We should hope not . . . But, then again, if you are still buying old fashioned conventional length recording tapes, you are either wasting a lot of music or a lot of money. Let's face it; Schubert, Brahms, Beethoven and Company didn't write music to fit a reel of recording tape.

It's up to you, the recorder owner, to buy a tape that will fit the music. Only American offers a complete line of Professional Length recording tapes at prices you are now paying for old fashioned conventional lengths. In fact, only American offers a selection of 45 different recording lengths available in lengths of 150, 250, 300, 350, 450, 500, 600, 700, 800, 900, 1200, 1500, 1800, 2000, 2400, 3000, 3600, 4800 and 7200 feet. Be up to date. Insist on American, the tape designed to fulfill your every recording need.

See your dealer or write to:

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2135 Canyon Drive, Costa Mesa, Calif.

Well! We should hope not . . . But, then again, if you are still buying old fashioned conventional length recording tapes, you are either wasting a lot of music or a lot of money. Let's face it; Schubert, Brahms, Beethoven and Company didn't write music to fit a reel of recording tape.

It's up to you, the recorder owner, to buy a tape that will fit the music. Only American offers a complete line of Professional Length recording tapes at prices you are now paying for old fashioned conventional lengths. In fact, only American offers a selection of 45 different recording lengths available in lengths of 150, 250, 300, 350, 450, 500, 600, 700, 800, 900, 1200, 1500, 1800, 2000, 2400, 3000, 3600, 4800 and 7200 feet. Be up to date. Insist on American, the tape designed to fulfill your every recording need.

See your dealer or write to:

AMERICAN RECORDING TAPE
GREEN TREE ELECTRONICS
2135 Canyon Drive, Costa Mesa, Calif.

Well! We should hope not . . . But, then again, if you are still buying old fashioned conventional length recording tapes, you are either wasting a lot of music or a lot of money. Let's face it; Schubert, Brahms, Beethoven and Company didn't write music to fit a reel of recording tape.

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See your dealer or write to:

AMERICAN RECORDING TAPE
GREEN TREE ELECTRONICS
2135 Canyon Drive, Costa Mesa, Calif.
If you think you can’t afford the best high fidelity components available, bar none, check these three independent magazine surveys.*

They agree on their choices of the *best* turntable and the *best* loudspeakers – moderately priced AR’s.

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*The Bravo survey introduced its selection of top components with: "If music is so deeply your passion that it makes you intolerant of all compromise...you may enter that rarified area of audio where nothing matters but the dedicated pursuit of perfection."

The Popular Science panel tried to eliminate frills, and limited its choice to compact speakers for reasons of practicality in the home, but stated: "Where there was a more expensive component that produced a detectable improvement in sound, it was chosen."

The Hi-Fi/Tape Systems survey referred to its choices as "the least expensive way to obtain state-of-the-art performance."

The popular Science survey also recommended Roy Allison’s High Fidelity Systems – A User’s Guide (AR Library Vol. 1, $1). This book may be purchased at many AR dealers’, or you may order it directly with the coupon below.

ACOUSTIC RESEARCH, INC., 24 Thorndike Street, Cambridge, Massachusetts 02141

☐ Please send me Allison’s High Fidelity Systems – A User’s Guide. I enclose $1 in cash or check only, and/or

☐ Please send me free literature on AR products, plus the complete lists of components chosen by each magazine.

Name _______________________________ Address _______________________________

MARCH 1965
This month I would like to touch upon a number of matters that seem almost too elementary to receive attention in the pages of a specialized hi-fi publication. However, these questions pop up time and again on the sales floor of any audio shop, asked by people whose interest in good sound reproduction exceeds their information about it.

Can I get stereo by hooking a second speaker to my radio? This question indicates a basic misconception about stereo. The stereo effect depends on there being a difference between the material fed to the left and right speakers. If both speakers are connected to the same output, obviously they will reproduce the same thing. To get stereo, it is necessary to have two completely separate sound channels, starting at the microphones that pick up the original sound and continuing on separate paths all the way through the speakers. This is the only way an audio system can reproduce what our ears hear in the concert hall. This is not to say that you cannot enhance the sound of your hi-fi system (or radio, for that matter) by connecting a second speaker in parallel with the original one. The second speaker should be about eight to ten feet from the first.

Can I play stereo records on my old LP record player? You can, but for one thing, you won’t hear the stereo effect—the records will sound just like mono records. Worse, you will damage the record. The stylus in a mono phono cartridge is designed to move from side to side. It cannot follow the up-and-down movement of the grooves of a stereo record. This up-and-down path represents the record’s stereo characteristics, and a mono cartridge is likely to plow right through it and, in effect, erase it. If the record is later played on a good stereo system, it will probably not only lack any stereo effect, but in addition will sound somewhat fuzzy. If your record player is of the inexpensive console or portable variety, you should give up any idea of using stereo discs. If your mono player is part of a high-fidelity system, you can have your audio dealer install a stereo cartridge with a 0.7-mil stylus. This will enable you to play both mono and stereo records without damaging them. Then you can start buying stereo records in anticipation of eventually changing over your whole system to stereo.

Does a 60-watt amplifier play twice as loud as a 30-watt amplifier? No—and mere loudness isn’t the reason for having extra power. In fact, the loudness difference between a 30-watt and a 60-watt amplifier playing at top volume is barely noticeable. The chief advantage of the more powerful amplifier is greater clarity of sound when the music demands a sudden power surge—for instance, during heavily scored passages full of crashing chords and deep-rolling bass notes. The power reserve of a low-wattage amplifier may be exceeded at such moments, making the sound fuzzy and strident during a musical climax. By contrast, an amplifier with sufficient power reserve, though sounding no louder, keeps the sound smooth and transparent even through difficult passages. For a full discussion of this frequently misunderstood matter, see Julian D. Hirsch’s article on the subject of “How Much Amplifier Power Do You Really Need?” in the June, 1964 issue of HiFi/Stereo Review.
See the new KLH tuner

See the FM Stereo tuner.
See how pretty it is.
It’s very new.
It’s called the Model Eighteen.
And it’s from KLH.
Isn’t that terrific?
See how pretty it is!
It’s very small.
Only nine inches long.
But oh boy! Does it sound good!
It sounds real good with a KLH Model Eleven.
Or a KLH Model Fifteen.
Or a KLH Model Sixteen.
Or any swell amplifier.
It doesn’t have any tubes.
Just lots of transistors that never wear out.
And it’s got planetary tuning. With a vernier.
That’s the best kind.
And Zowie — a meter and a light.
To tell you when you’re tuned in right.
And it won’t need fixing and aligning all the time.
That’s because it’s so light.
And the parts don’t move around inside.
It doesn’t cost lots of money, either.
Just 129 dollars and 95 cents,*
You can buy a Model Eighteen.
From your friendly KLH dealer.
He’ll let you play one.
And you can see how good it sounds.
And how pretty it is.
And how little it costs.
And how did you ever get along without it?
But please don’t call it cute.
It’s very sensitive.

*Suggested retail; slightly higher on the west coast.

MARCH 1965
CIRCLE NO. 55 ON READER SERVICE CARD
Compare these S-9500 Special Power output, both channels. HF music power: 50 watts at 1% I.M. distortion. Continuous sine-wave power output (two channels): 36 watts at 1% distortion. Power bandwidth: 12-35,000 cps, at 1% distortion. Hum and noise: Phono - 70db, Tuner - 80db. Sensitivity: Phono - 1.8 mv, Tuner 0.35v. Also available: 150-watt music power Silicon Solid-State amplifier, S-9000, $299.50.

Is our silicon showing?

Well, it should be... if only to show you how very lucky you'd be to own the Silicon transistorized circuitry of the S-9500. We wish you could SEE the difference which costs us 50% more than the usual Germanium way of transistorizing your circuit; you will HEAR the difference. Furthermore, this 50-watt Sherwood integrated amplifier-preamplifier can be squeezed into the tightest custom installation, with no heat problems either. Perhaps, you are wondering if these transistors will really stand up. Just perfectly, because the new Sherwood all-Silicon circuitry virtually eliminates transistor failure caused by shorted speaker terminals or other improper operation. And all this for only $179.50.

Write now for our latest catalog detailing this remarkable amplifier as well as Sherwood's world-famous FM tuners and speaker systems. Dept. 3R.
TEST REPORTS: No one not actually involved in testing and evaluating audio equipment for publication purposes can really appreciate the complexity of the task. It goes without saying (though it is easier said than done) that the measurements must be accurate and valid. The reviewer also encounters numerous pitfalls in the areas of advertising, public relations, and the often strongly divergent views of competing manufacturers.

The presentation of the test results and the reviewer's conclusions also poses a problem. Many readers, for example, are laymen who have little interest in technical details, but are looking for guidance in choosing high-fidelity components. In short, they want to be told what is good, what is bad, and what is best. Others are more technical-minded, and would probably prefer to see only the test results, without any comments.

Obviously, one cannot satisfy both groups at the same time. Some compromise is necessary. My tendency is to de-emphasize numbers and curves in favor of personal reactions. Although the data sometimes speak for themselves, I invariably back up the facts and figures with a subjective evaluation. But my task is complicated by the fact that a fair evaluation of any product is not a simple, black-or-white matter. Many people tend to think in such absolute terms, however, and want to be told that a particular component is either good or bad. As a result of testing and using literally hundreds of audio components, I find that I must emphatically reject this approach. Few, if any, components are completely without fault or without virtue. It is the job of the responsible reviewer, I feel, to place the faults and virtues of the equipment in proper perspective, and this can only be done through the expression of a personal opinion. Laboratory measurements can and should be completely objective. Their interpretation, however, cannot be completely objective, or the reviewer abdicates part of his responsibility. This does not mean that a product of which the reviewer disapproves must be condemned in vitriolic terms—it is possible to point out the weaknesses of a product fairly, without using biased language. When I do express a strong positive opinion, it is to indicate my honest enthusiasm for a well-executed design, whether it be a tape recorder, a tuner, or some other component.

Furman Hebb, in his editorial in the November 1964 issue of HiFi/Stereo Review, explained very clearly why the test reports published here are generally favorable. I have tested some components that were obviously unsuited for review. Frankly, they were simply not worth the space a report would have required, so no report was presented. It is unfortunate that the same space limitations also prevent my reviewing many fine products that are presently on the market, but there appears to be no handy solution to this problem.

On the question of whether I am sent specially selected samples of equipment for testing, it would probably surprise many people to learn that a sizable percentage of the units I receive for review are defective in some way. In such a case I usually request a second unit, and if, on inspection, the design and construction of the unit appear to be basically sound, my report makes no mention of the defective first sample. Over the years, I have given much thought to this problem, without finding any completely satisfactory answer. If the unit appears to be well made, and if the original defect does not appear to be inherent in the design and can be attributed to a legitimate cause, I believe it would be unfair to the manufacturer to comment on it. On the other hand, if I encounter two defective samples in a row, I rarely bother reporting on the product.

Since the space available for these reports is in fact limited, I therefore confine my comments to those features I consider to be most important. Some aspects of a unit's performance must go unreported, but in general, any aspect of operation in which a unit is above or below average in performance will be commented upon. I believe that the omissions, in general, do not detract from the usefulness of the report to the general reader. The only reasonable alternative would be to present a mass of tabular and graphical data, with a minimum of selection, interpretation, and comment, as is done in some other publications. Apart from the fact that this would be less than helpful to most readers, and subject to misinterpretation even by technically oriented people, the required graph-scale reduction tends to obscure important details. When presenting test reports, I feel (with apologies to Confucius) that one good word is frequently worth ten thousand pictures.
SHERWOOD S-9000 AMPLIFIER

- Sherwood’s new S-9000 transistor stereo amplifier is provocatively advertised as a 100-, 150-, or 300-watt amplifier, depending on whether it is rated for continuous-power, music-power, or peak-power output. My continuous-power measurements (made with both channels driven) completely confirmed the 100-watt rating, and I have no doubt the other ratings are equally accurate.

The S-9000, considering its husky power output, is quite compact, measuring 14 x 121/2 x 4 inches and weighing 24 pounds. It has inputs for tape head, phono cartridge, tuner, and another high-level source, plus tape-monitor inputs selected by a separate front-panel switch. The front-panel phone jack for headphone listening. A small knob adjusts phono levels to match the other input.

The bass and treble tone controls are common to both channels. Considering the nearly universal use of matched speaker systems, I do not consider this to be any disadvantage compared to separate tone controls for the two channels. The balance control can cut off either channel completely without noticeably affecting the level of the other channel. Other front-panel controls include switches for high- and low-cut filters, speaker phase-reversal, loudness compensation, and speaker cut-off by means of a front-panel phone jack for headphone listening. A small "fader", permitting smooth, noncritical adjustment of volume even at the lowest settings. The switchable Fletcher-Munson compensation boosts the low frequencies as the volume setting is lowered below its midpoint. I am not usually partial to loudness controls, which often produce tubby sound, but this one has a very pleasing effect.

The loudness control seems to be especially well designed, permitting smooth, noncritical adjustment of volume even at the lowest settings. The switchable Fletcher-Munson compensation boosts the low frequencies as the volume setting is lowered below its midpoint. I am not usually partial to loudness controls, which often produce tubby sound, but this one has a very pleasing effect.

The Sherwood S-9000 sounded excellent, exhibiting all the sonic punch one would expect from a first-class 100-watt amplifier, with complete freedom from hum and noise. I found only two disturbing characteristics in the operation of the S-9000 I checked. When it was first turned on, it produced a thump and a momentary hum, and switching transients were generated when resetting the input-selector switch. According to the manufacturer, however, these faults were spotted early in the production of the S-9000, and have been eliminated in units manufactured during the past several months. In all other respects, the S-9000 is very hard to fault, and I found it to be an excellent, easy-to-use amplifier with more than enough reserve power for almost any home music system.

The price of the amplifier is $299.50.

For more information, circle 188 on reader service card

(Continued on page 32)
If you have never really believed that a 2 cubic foot loudspeaker can sound as good as the largest systems, listen to the new Fisher XP-9.

We do not want to start another debate on the 'good big speaker' versus the 'good little speaker.' But, when you listen to the new Fisher XP-9, we do want you to evaluate it against loudspeaker systems of all sizes, not just the standard 2-cubic-foot bookshelf units.

We think the XP-9 can hold its own in an A-B showdown with any speaker—including the 'monsters.' It is simply the most successful bookshelf design to date.

The 12”-woofer of the XP-9 not only goes down to 28 cps without distortion but also requires considerably less amplifier power for room-filling bass than previous experience would make you expect. The three 5” midrange drivers are assigned more than three octaves of the audible spectrum, with a considerably lower bass-to-midrange crossover than is conventional. This wide-band approach flattens the upper bass and lower midrange response to an unprecedented degree, completely eliminating even the slightest suggestion of boxed-in 'bookshelf' sound. And the exceptional dispersion characteristics and uniquely smooth, resonance-free response of the exclusive 1½” soft-dome tweeter result in the most natural-sounding treble range ever achieved.

The Fisher XP-9 has an impedance of 8 ohms, comes in Scandinavian walnut, measures 24½” by 14” by 12” deep, and costs $199.50. Other superb Fisher loudspeaker systems include the XP-5 at $54.50, the XP-6 at $99.50, the XP-7 at $139.50, and the XP-10 Consolette at $249.50.

For your free copy of this 76-page book, use coupon on page 36.
A recent addition to the KLH component line is a stereo FM tuner, the Model Eighteen. Like other KLH products, the Eighteen is engineered to produce maximum performance with minimum complexity.

The Model Eighteen is fully transistorized and exceptionally compact: in its walnut cabinet, it measures 9 inches wide, 4 1/2 inches high, 5 3/8 inches deep, and weighs under four pounds. With its white-panel styling, it resembles the KLH Model Eight FM radio, and it also has a smoothly operating planetary dial drive, a miniature zero-center tuning meter, and a stereo-indicator light. The only switches, other than a volume-control/power switch, are a mono/stereo switch and an SCA-filter switch.

The instruction manual accompanying the Model Eighteen I checked had no schematic and virtually no technical information on the tuner. It did point out, however, that the unconventional i.f. transformers used, which have miniature low-mass cores, should keep the tuner’s alignment unusually stable during shipment or use. This, coupled with the extremely long life and stability of transistors, plus the absence of internally generated heat, should mean that the alignment and service requirements of the Model Eighteen will be minimal.

The tuner is supplied with a three-foot wire that serves as an antenna in strong-signal locations, and with a 300-ohm folded dipole for use in weak-signal areas. For fringe-area reception, KLH recommends an outdoor antenna. I first tried the tuner with the three-foot wire. To my surprise, it picked up almost all the stations (26) that are normally heard in my location—all of them completely free of background noise. The 300-ohm dipole antenna made little improvement. This is quite impressive for reception in my area, some 25 miles from New York City. Using my roof-mounted eight-element Yagi antenna, I received 32 stations with excellent quality. This equals the performance of any other tuner I have used.

I did not hear any crosstalk from strong local stations (a potential weakness of transistor tuners), and alternate-channel selectivity was excellent, permitting the reception of a weak station whose broadcast frequency was near the frequency of a much stronger one. To simulate the effect of a very strong local station, I connected a signal generator to the three-foot antenna and fed a 100,000-microvolt signal into the tuner: there was no crossmodulation no matter where the unit was tuned.

The Model Eighteen had no detectable drift, and when the needle of its unambiguous meter was centered, the tuner had minimum distortion and maximum stereo separation. The IHF usable sensitivity measured 3.9 microvolts, and as with several other good tuners, the steep limiting curve of the Model Eighteen resulted in the impression of an even greater sensitivity. Any signal greater than 10 microvolts was strong enough for complete limiting, and from 10 microvolts to 100,000 microvolts there was no change in output, noise, or distortion. The fact that the short-wire antenna picked up more than 19 microvolts from most stations explains why so little audible improvement resulted from using better antennas.

Stereo separation was about 30 db from 30 to 3,000 cps, 20 db at 6,000 cps, and 8 db at 10,000 cps. Frequency response was completely flat from 20 cps to 1,000 cps, rising slightly at higher frequencies in mono reception, and falling slightly above 10,000 cps in stereo reception. The stereo-indicator lamp flickered on interstation noise, but remained on steadily when a stereo broadcast was being received. The SCA filter is intended to remove the gargling background noise sometimes heard on stereo broadcast stations. The filter should be used only when necessary, since it slightly reduces channel separation and may cause distortion on heavily modulated signals.

In this day of obsession with numerical specifications, it is to me quite interesting to see that KLH makes no mention of sensitivity figures, channel separation figures—nor of any other of the performance data we are accustomed to seeing in tuner advertisements. With admirable restraint, as well as accuracy, the ads for the KLH Model Eighteen simply describe some of its unusual design features and points of claimed superiority over other types of tuners. I am happy to say that I found the unit to be everything it was claimed to be, and more.

The KLH Model Eighteen is an ideal complement to the company’s Model Eleven or Fifteen phonograph systems, which it matches both visually and electrically. At its selling price of $129.95, the Model Eighteen is an exceptional value, and is, in fact, one of the better FM tuners I have seen regardless of price.

For more information, circle 189 on reader service card.
Not even Fisher knows how to make a better tuner under $300 than the new Fisher FM-200-C.

Fisher engineers have been working for several years now on the industry's most extensive research and development project in FM tuner design.

The one FM stereo tuner that incorporates all the advancements of the art that have emerged from this program is the new Fisher FM-200-C. Here is the sum total of Fisher creativity in the tuner field. It seems almost superfluous to add that no other high fidelity manufacturer has produced anything comparable.

Among the exclusive Fisher innovations and other typical Fisher circuit features designed into the FM-200-C are the Nuvistor-Golden Synchrode® front end, 5 IF stages, 4 limiters, wide-band ratio detector, solid-state multiplex section, Stereo Beacon® with automatic stereo-mono switching, AutoScan® automatic stereo scanner, the MicroTune® system of tuning with AFC, and a d'Arsonval tuning meter.

IHF sensitivity is 1.8 microvolts; stereo separation is in excess of 40 db! In every respect, performance approaches the theoretical limits of the medium. You cannot buy finer FM reception or purer audio quality.

The dimensions of the FM-200-C are Fisher standard: 15½" wide x 4½" high x 11½" deep. Weight is 13 lbs. And the price is an eminently reasonable $299.50. (Other great Fisher FM tuners include the FM-90-B at $179.50, the FM-100-C at $249.50 and the transistorized TFM-300 at $299.50. Walnut cabinet for each model available at $24.95.)

For your free copy of this 76-page book, use coupon on page 36.
To salute Sir Winston Churchill on his nineteenth birthday (the news of Sir Winston's death has just been received as of this writing), London Records in November released an imposing twelve-disc album, its cover embossed with a bas-relief of simulated bronze, containing more than eleven hours of words, all spoken by Mr. Churchill. Accompanying the album—which is priced at one hundred dollars—is a sixty-page booklet of photographs, some of them never published before, with an essay on Churchill's career by Arthur Bryant and a full-color reproduction of Sir Oswald Birley's oil portrait of Sir Winston.

There have been recorded tributes to Churchill before—excerpts from speeches linked by narration (Colpix PS 200), a disc in Edward R. Murrow's "I Can Hear It Now" series (Columbia KL 5066), and a two-record album of the major speeches (Capitol TBO 2192)—but never a monument like this. In addition to recordings taken from radio transcriptions covering the years 1933 to 1945, the London set contains many hours of material that Sir Winston recorded in his home at Chartwell in 1946 and 1949. At the same time, with an eye to the enlightenment of future generations and a fine sense of history, he also recorded many of the addresses he had made in the House of Commons, where recording is not allowed.

As the late President Kennedy said, Churchill "mobilized the English language and sent it into battle." This is as true of the prose itself as it is of his delivery. His memoirs read like a veritable cliffhanger. They are not footnotes to history—they are history. In the early years, reading softly, with a slight lisp, and in a voice that has lost only a little of its ring and none of its authority, the narrator takes us back to the "eleventh hour of the eleventh day in the eleventh month" of the year 1918, tracing the growth of the seeds of World War II from the time of their sowing—at the very moment of the Allied victory over Germany. Reviewing what he calls the 'sad story of the complicated idiocy' as Germany, her grievances unredressed, is allowed to rearm during "that period of exhaustion which has been described as peace," Churchill vindicates his genius, not only as a statesman, but as a prophet. He recites the lessons of the past, pleads with the people of Britain to open their eyes to the danger of what is happening in Central Europe. The government will not listen to him, will not arm, will not admit that war is imminent. Meanwhile, the Nazis rise to power in Germany and methodically draw up their plans for world conquest. One knows only too well how it will all turn out, yet in the grip of Mr. Churchill's suspenseful prose and under the spell of his voice the listener finds himself growing increasingly tense.

By the time Churchill delivers his 1934 radio broadcast on "The Causes of War" it seems impossible that the English will fail to awaken to their danger. Sir Winston is appointed First Lord of the Admiralty in 1939, but still his warnings go unheeded. Then follow the sadness of Sir Anthony Eden's resignation as Foreign Secretary, the loss of air parity, the failure of the free nations either to unite or to arm. Chamberlain's disastrous visit to Munich is not described (the story is recounted in a footnote), but the pile-up of later events is graphically reconstructed: Poland is invaded, England and France are at war with Germany, and Churchill, whose life up until that time seems to have been a kind of rehearsal for greatness, takes the helm as Prime Minister. All the ordeals of the war now unfold—Churchill's futile visits to France, the disasters in Norway, the demoralization of the French forces, and at last the evacuation of the British from Dunkirk.

Now we hear more of the actual recorded broadcasts and less of the memoirs. Sides Thirteen to Seventeen are (Continued on page 36)
Operating an advanced stereo system is now as simple as ABC.
(Or CBS. Or NBC. Or QXR.)

Don't be intimidated by the technical jargon of the audio engineers. Now, anyone who can tune in a ball game on a kitchen radio has already mastered the operation of one of the world's most advanced high fidelity systems, the Fisher 500-C stereo receiver.

Here, on one magnificent chassis, are three top-rated stereo components. A high-sensitivity Fisher FM-multiplex stereo tuner. A versatile Fisher stereo control-preamplifier. A powerful 75-watt Fisher stereo amplifier. All the electronics you need for a great stereosystem, in only 17 1/2 inches of shelf space! Yet the 500-C is so functionally designed even a child can operate it. And, what is more important, you get the same high quality of performance the advanced audiophile demands and expects from every Fisher component.

Now you see why the Fisher 500-C has become, from the very day of its introduction, the standard by which all other stereo receivers are measured. Today, the Fisher 500-C is the single best-selling high fidelity component in the world, bar none.

What does such a superlative instrument cost? Only $389.50. If you wish to pay $60 more, you may have the Fisher 800-C, which is identical to the 500-C, with the addition of a remarkable AM tuner. Or, for $90 less, there is the Fisher 400, a stereo receiver with 65 watts of power. And, if you're willing to pay a premium for the last word in space-age electronics, consider the transistorized Fisher 600-T with 110 watts output, at $499.50. (Cabinets for all models available at $24.95.)

For your free copy of this 76-page book, use coupon on page 36.

The Fisher
When you see the NEW SUPEREX PROFESSIONAL STEREOPHONES, take a second look...
Notice the kind of person who enjoys them, Then experience them for yourself.
The stereophones you see here are unique in their class.
Discover the increased listening pleasure, NEVER was sound so PURE, never was listening so PRIVATE and UNINTERRUPTED.
NEVER was stereo so DYNAMIC.
ONLY then will YOU know what makes SUPEREX STEREOPHONES AMERICA'S FINEST!

$50.00

Superex has the only stereophones with a separate woofer and tweeter for each ear for the full range of sound; 20-20,000 cps.

NEVER was sound so PURE, never was listening so PRIVATE and UNINTERRUPTED.
NEVER was stereo so DYNAMIC.

$50.00

CIRCLE NO. 80 ON READER SERVICE CARD

SUPEREX ELECTRONICS CORP. • 11 Radford Pl. • Yonkers, N.Y.

Buying stereo?
The first thing you need is free.

Fill out and mail this coupon for your complimentary copy of The New Fisher Handbook, available to readers of this magazine without charge or obligation. Whether or not you know a great deal about high fidelity and stereo, you will find this comprehensive 76-page reference guide and idea book a valuable aid in making buying decisions—the first thing you need before investing in expensive equipment! Detailed information on all Fisher components is included.

Fisher Radio Corporation
21-40 44th Drive, Long Island City, N. Y. 11101

Name
Address
City State

Free!
$2 Value! 76 Pages!

CIRCLE NO. 30 ON READER SERVICE CARD

WINSTON S. CHURCHILL: His Memoirs and His Speeches, 1918 to 1945. LONDON XL-1 twelve 12-inch discs $100.

CIRCLE NO. 30 ON READER SERVICE CARD
Who makes the only great amplifier for $99.50?

You do... with the new Fisher KX-90 StrataKit.

Now, for the first time in high fidelity history, you can own a truly distinguished stereo control-amplifier for less than $100—if you are willing to build it yourself.

Fisher refuses to compromise quality. Therefore, even at $99.50, the Fisher KX-90 StrataKit incorporates the same basic standard of fidelity as the most expensive Fisher components. Take away its price tag and it would still excite the admiration of the fastidious audiophile.

With 40 watts of clean power, the KX-90 can drive even inefficient speakers to their maximum performance level. Superior output transformers make certain this power will not fall off steeply at the frequency extremes. Advanced preamplifier control features, including rocker switches and complete phono and tape facilities, provide unlimited flexibility.

It's all yours if you follow directions. And that's no problem with the exclusive Fisher StrataKit method. No experience is necessary. Assembly takes place by simple, errorproof stages (Strata). Each stage corresponds to a separate fold-out page in the uniquely detailed instruction manual. Each stage is built from a separate packet of parts (StrataPack). Major parts come already mounted on the extra-heavy-gauge steel chassis. Wires are precut for every stage—which means every page. All work can be checked stage-by-stage and page-by-page, before proceeding to the next stage.

The end result is a Fisher amplifier that is fully equal in performance and reliability to its factory-wired prototype. Fisher guarantees this. And who should know better than Fisher?

FREE! $1.00 VALUE! Send for The Kit Builder's Manual, an illustrated guide to high fidelity kit construction, complete with detailed specifications of all Fisher StrataKits.

Fisher Radio Corporation 21-40 44th Drive Long Island City, N. Y. 11101

The Kit Builder's Manual

Name
Address
City State

MONDAY, MARCH 6, 1965

The Fisher

CIRCLE NO. 30 ON READER SERVICE CARD

37
Unsurpassed sound reproduction!

BAWDY SONGS, Vol. 1. Oscar Brand—Roll Your Leg Over, No Hips At All, One-Eyed Reilly, Sam Hall, The Sergeant, Rollin' Down The Mountain. AFLP1906

BAWDY SONGS and Backroom Ballads, Vol. 2. Oscar Brand—Lusty, spicy musical folklore. Winnipeg Whore, Erie Canal, A Gob Is A Slob, etc. AFLP1806

EL HOMBRE MEXICANO, Mariachi Nacional, Arcadio Elias—Guitars, Violins, Trumpets—Cowboy yells, Guadalajara, Soy Puro Mexican, Paloma, etc. AFLP2116/AFSD6116

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ONE would expect that the overwhelming popularity of Tchaikovsky’s Fourth, Fifth, and Sixth Symphonies and the ballets The Swan Lake, The Sleeping Beauty, and The Nutcracker would extend to the other examples of his orchestral creativity. Yet performances of the First and Third Symphonies are extremely rare—the Second, the so-called “Little Russian” Symphony, fares a little better. And Tchaikovsky’s four orchestral suites, which contain some of his freshest and most inventive music, appear almost to have passed from the orchestral repertoire.

But there is one orchestral work of Tchaikovsky’s, other than the late symphonies and ballets, that maintains a strong hold on the affections of the concert-going public: the Serenade for String Orchestra in C Major. Tchaikovsky’s own attitude toward the work is revealed in a letter to his benefactress, Mme. Nadejda von Meck, written in October of 1880: “You can imagine, dear friend, that recently my Muse has been benevolent, when I tell you that I have written two long works very rapidly: a Festival Overture and a Serenade in four movements for string orchestra. The Overture will be very noisy. I wrote it without much warmth of enthusiasm; therefore it has no great artistic value. The Serenade, on the contrary. I wrote from an inward impulse: I felt it; and I venture to hope that this work is not without artistic qualities.” The festival overture to which Tchaikovsky made reference was the 1812 Overture, a work whose bombast and posturing Tchaikovsky well knew would not find favor with Mme. von Meck. Just as surely, however, Tchaikovsky knew that the Serenade, particularly the middle two movements, would strike a responsive chord in the emotional makeup of his friend. In another letter to Mme. von Meck about a year later, Tchaikovsky wrote: “I wish with all my heart that you could hear my Serenade properly performed. It loses so much on the piano. I think that the middle movements, as played by the strings, would win your sympathy. As regards the first and the last movements, you are right:
They are merely a play of sounds and do not touch the heart. The first movement is my homage to Mozart: it is intended to be an imitation of his style, and I should be delighted if I thought I had in any way approached my model. Do not laugh, my dear, at my zeal in standing up for my latest creation. Perhaps my paternal feelings are so warm because it is the youngest child of my fancy."

The first performance of the Serenade was given at a private gathering in the Moscow Conservatory in the spring of 1881. The occasion was arranged by Nicholas Rubinstein, the autocratic head of the Conservatory, who had displayed a keen interest in the score and himself conducted the student orchestra. In his last illness, and unable to stand, Rubinstein led the performance from a chair on the podium.

The official premiere of the Serenade for Strings was given in Moscow in January of 1882, and the score served Tchaikovsky well on his debut tour as a conductor in Hamburg, Prague, Paris, and London in 1887. The piece was especially successful in the French and English capitals, and after a London performance Tchaikovsky wrote: "The Serenade pleased most and I was recalled three times, which means a good deal from the reserved London public." During the course of his American tour in 1891, Tchaikovsky conducted performances of the Serenade in two cities, Baltimore and Philadelphia. At the concert in Philadelphia's Academy of Music, the audience cheered Tchaikovsky until the rafters rang.

The Serenade is in four movements. The opening movement bears the curious designation Pezzo in forma di Sonatina. It is in shortened and simplified sonata form, with a slow introduction that is like a chorale. The main part of the movement is an energetic and vigorous Allegro molto. At the end of the movement the broad and imposing theme of the introduction returns. The second movement is a waltz, one of Tchaikovsky's most delicate and charming. The third movement (Larghetto elegiaco) is a slow elegy, and the concluding Finale makes use of some Russian folk tunes. The main theme of this last movement bears a family resemblance to the chorale-like melody heard at the beginning in the introduction. Near the close of the Finale Tchaikovsky recalls the music of the introduction, but the exuberant folk tune that serves as the principal material of the movement brings the score to a resounding close.

In the late 1940's Serge Koussevitzky recorded a performance of the Tchaikovsky Serenade, with the strings of the Boston Symphony Orchestra, that was a miracle of suave, polished playing. The incandescent quality of the Koussevitzky-era Boston Symphony strings was never shown to greater advantage. In addition, Koussevitzky brought to the score that unique quality of personal involvement with this composer that made such extraordinary experiences of his Tchaikovsky performances. The Serenade recording originated in the 78-rpm era, of course, but it was an early transfer to the long-playing medium, where it graced the RCA Victor catalog as LM 1056. Some years ago this incomparable performance was withdrawn, along with all the other Koussevitzky recordings. No matter what other salutary projects RCA Victor plans, reissue of the remarkable series of recordings made by Koussevitzky and the Boston Symphony between 1929 and 1950 should take precedence.

Of the ten available recordings of the Tchaikovsky Serenade, the most worthy, in my opinion, are those by Munch and the Boston Symphony (RCA Victor LSC/LM 2105), Ormandy and the Philadelphia Orchestra (Columbia MS 6224, ML 5624), and Solti and the Israel Philharmonic (London CS 6066, CM 9010). All three orchestras have superb string sections, and all three are recorded with emphasis on voluptuous sound. Ormandy and Solti drive the music harder than Munch, who delivers a warm and sensitive account. The couplings may influence your choice: the Munch recording combines Elgar's Introduction and Allegro with the Serenade (the monophonic pressing also includes Barber's Adagio for Strings); Ormandy's includes a miscellany of string works, by Barber (the Adagio), Borodin, and Vaughan Williams; and Solti's offers Mozart's best-known serenade, Eine kleine Nachtmusik.

The Munch performance, for its greater relaxation and tonal warmth, is my own personal choice among the currently available recordings of the Tchaikovsky Serenade for Strings.

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MARCH 1965

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*In addition, 38 speakers were returned with no defects, and freight charges were not reimbursed; 53 returned speakers were judged to have been subjected to gross abuse (such as dropping or plugging in to the 110V outlet), and the owners were charged for both repair and freight. We expect the return rate of the AR-2ax (new version of the AR-2a with improved mid-range speaker) to be even lower.
More than ever before, today's tape-recorder buyer is faced with an embarrassment of riches. The typical hi-fi showroom offers not only a bewildering assortment of recorders in every price bracket but also a choice of several sharply different kinds of tape equipment—all-purpose recorders, tape decks, cartridge...
SELECTING THE RIGHT RECORDER

machines, miniature portables, and others. All of which can add up to confusion for an unprepared shopper.

This great variety, however, now makes it possible to find features and quality in moderately priced recorders that once were available only in the most expensive machines. But to make the most of today's possibilities, you should enter a showroom with some idea not only of what to look for and what to expect in a good recorder, but also with a general picture in your mind of the kind of machine that is most likely to suit your personal requirements and budget limitations.

Whether you are about to buy your first recorder or replace an older machine, you should be aware that many of the older accepted guidelines for selecting a recorder are no longer very meaningful. What you may have been advised to look for in a recorder a few years ago may now be irrelevant or misleading. Probably the most important example is the one-time important distinction between "complete" recorders and tape decks (machines without built-in power amplifiers and speakers). Not too long ago, the only way to be sure of getting fully satisfactory results from tape recording with a hi-fi system was to buy a deck. The complete machine, with its mediocre speakers and low-fi amplifiers, was a piece of excess (and usually expensive) baggage. Moreover, its superfluous paraphernalia often severely compromised performance when hooked up to a hi-fi system, causing hum and distortion.

But things have changed radically since then. For one thing, the use of transistors has cut the cost and raised the quality of additional features. For example, a manufacturer can now add fairly decent amplifiers and speakers to a basic tape mechanism at only a relatively small increase in cost. The built-in amplifiers and speakers are a convenience for on-location recording—and the lightweight transistor circuits add almost no extra weight to the machine.

This does not mean that the time-honored tape deck is now obsolete or about to become so. It does mean, however, that a self-contained, all-purpose recorder may be entirely comparable in performance. If, for on-location use, you want a recorder that has its own speakers, you should be able to purchase one that will give you high-quality results (when used with a separate playback system), at a cost only a little more than that for a deck of comparable quality.

Another earlier distinction that can now be safely forgotten about is the presence or absence of so-called "professional" features in a recorder. Most of the visually impressive features of studio recorders—such as VU recording-level meters, tape-tension levers, and separate motors for rewinding and fast-forwarding tape—now appear frequently in medium-price home recorders. They are also not used in some expensive and excellent machines. What matters, of course, is a recorder's actual performance and ease of operation, and one should not be influenced by gadgetry when judging a tape machine's over-all quality.

Fortunately, there are some concrete indices of quality to look and listen for in a recorder. Before they are examined, however, the various types of tape recorders now available should be described. Assuming that the basic difference between decks and complete recorders is reasonably well defined, and that stereo operation is now the norm for tape equipment, we will concentrate on the variations in the basic types of gear, and on the relatively new special-purpose machines on the market.

The simplest and least expensive form of tape machine is the tape transport, which consists of a tape-drive mechanism and one or two heads. A tape transport lacks any kind of "electronics," and its output must be fed into an amplifier with tape-head inputs. Tape-head inputs should not be confused with the standard tape inputs provided for the connection of a recorder or deck that has its own playback preamplifiers.

To permit the recording and erasure of tapes, a recorder must have, in addition to its playback amplifiers, special recording amplifiers. These provide the special bias current needed for taping and erasing, and they also equalize the signal going onto the tape, providing the frequency corrections necessary to make up for losses in the recording process. In less expensive recorders, a single two-channel (for stereo) amplifier does double duty, serving both as a record and playback amplifier. However, the more expensive recorders have separate...
twin-channel amplifiers for recording and playback.

If economy is the prime reason for the existence of the tape transport, it is also the raison d'être for some recorders that are only partly stereophonic in operation. Some self-contained recorders, although they have a stereo playback head, have only a single amplifier and speaker of their own, and can play back stereo tapes only in conjunction with a hi-fi system or a special amplifier-speaker combination, the latter usually being available as an optional accessory. Other recorders, now very few in number, play back prerecorded stereo tapes but cannot make stereo recordings. It is often impractical—or impossible—to convert these recorders to stereo taping. You should make certain, then, particularly if you are offered a bargain in a discontinued model, just how "complete" a recorder it is, and how easily it can be adapted to full-fledged stereo record and playback operation.

Over the past few years, the standard tape recorder has been joined by the cartridge machine, which does away with the usual reel-to-reel movement of tape in favor of partly or completely automatic tape-handling within a cartridge. At the moment, there are a number of cartridge systems available for special uses, but two systems—the RCA and the 3M-Revere—are the most important for the home listener.

The RCA units resemble conventional recorders except that the tape is enclosed in a plastic cartridge. The machine operates at 3 3/4 inches per second, and uses standard 1/4-inch magnetic tape inside the cartridge. The 3M-Revere system is more unusual, in that it is intended to compete with discs as well as reel-to-reel tape. It employs minia-

ture cartridges (containing a special tape made by 3M) that play at 1 7/8 ips, and the machine is fully automatic in operation. Through the action of its automatic tape-changing mechanism, the 3M-Revere system can provide up to fifteen hours of music without reloading. The RCA and 3M-Revere machines are available as playback-only decks, record-playback decks, and complete recorders (with speakers).

The advantages and disadvantages of the cartridge machines are interrelated. The cartridges themselves are more convenient and easier to handle than conventional reels, but they have the handicap that they cannot be used with standard recorders. And although the slower speeds at which the cartridge machines operate does provide extended playing time, slow-speed operation tends also to involve a slight decrease in fidelity. Essentially, the choice between cartridge and reel-to-reel tape is between extreme convenience and extreme fidelity.

Another new arrival, made possible by the use of transistors, has been the small battery-operated portable recorder. The reference here is not to the $29.95 "toy" portables that have been around for some time, but to the new battery-operated machines (selling for about $75 and up) that are designed for taping in the field, dictation, and other specialized uses. Their fidelity is often surprisingly good, and they thus make interesting "extras" for the owner of a home tape recorder. Tapes made on them can be played on many home machines. It is essential, of course, that the two recorders have a common speed—that is, if the portable recorder operates at 1 7/8 or 3 3/4 ips.
SELECTING A RECORDER

Should you be offered a bargain in a discontinued model, you'd better make certain just how "complete" a tape recorder it is.

the home unit must also have these speeds. And it is equally essential that the battery-operated recorder have a steady-speed capstan drive.

Although the variety of present tape equipment may seem endless, it is not too difficult to narrow down your range of choice. You should begin with the realization that the lowest price at which you will find generally acceptable performance is from $150 to $250—with but few exceptions. Many machines in this range offer both good fidelity and a comprehensive list of features. As you go up in price, however, frequency response, signal-to-noise ratio, distortion, and speed consistency slowly but perceptibly improve. And as you approach the $450-$600 range occupied by the top-quality home machines there are definite improvements in construction details that result in ruggedness and long-term dependability.

If you have bought other types of hi-fi components, you probably will want to make "paper" comparisons of various recorders before entering a showroom. If so, you should examine the boxed material on page 49 for brief explanations of the important tape specifications and how they should be interpreted. Your most important judgments, however, will be the ones you make in a showroom.

The two minimum requirements for acceptable taping are a tolerable level of background noise and reasonable freedom from speed variations (wow and flutter). These are best judged by listening to a recorder through a good, wide-range component system that will reveal flaws instead of masking them. (It is also a good idea to compare recordings taped and played back on the same machine; this usually gives a realistic picture of any machine's capabilities.)

Frequency response is a tricky consideration. You can expect to find superior response in higher-price machines, because both head assemblies and preamplifiers are better. But some low-price machines may exhibit apparently excellent response. If so, check to see whether seemingly good high-frequency response is produced by peaking the highs more than the normal amount during recording to make up for mediocre playback-head performance. This can be spotted by playing one or two prerecorded tapes, which will sound dull and lifeless over a poor playback head. Also worth watching out for is a "zingy" quality in the highs that indicates distortion.

As you move up the price ladder, one reliable index of quality is the presence of separate recording and playback heads. Although a combination record-playback head can perform very respectably, separate heads do provide the relatively wide head-gap necessary for good recording and the very narrow gap needed for best playback results. This means that less electronic compensation is required to make up for head deficiencies, and that better results can be obtained with a wide range of tapes (including prerecorded ones). A separate playback head also permits direct comparison ("monitoring") of the original signal against the signal as it is recorded on the tape.

As your demands become more critical, direct monitoring off the tape becomes the most effective yardstick of performance in a showroom demonstration. It tells more about a recorder's fidelity than any other technique, revealing subtle differences in frequency response, background noise, and distortion that might otherwise be overlooked. It is likely that some difference between the source and the taped signal will be detectable on even the most expensive machines. The better the machine, however, the less significant the difference will be.

If your inclination is toward a machine from either the upper-middle or the top-quality class, you should pay close attention to the way a recorder handles tape. In a low-price recorder, you can expect little more than on-speed playing and recording. In a better machine, however, you should check for smooth stops and starts at normal playing speeds (without jerking or spilling tape), reasonably fast rewinding and fast-forwarding, effective braking at high speed (without tape breakage or stretching), and foolproof switching from one mode of operation to another without breaking or spilling tape. All but the most expensive machines are less than perfect in one respect or another, but you should definitely avoid any machine that seems prone to jamming, or to damaging tape. And in any recorder above the rock-bottom price category, you should look for consistent, wow-free performance with various tape thicknesses and lengths; this is particularly important for the playing of commercially
prerecorded tapes. (It is worth noting that some moderate-price recorders are woefully deficient in handling "long-playing" prerecorded tapes.)

When you have narrowed down your choice of recorders according to their performance, you can and should look for those amenities that can make your taping activities more convenient. Many of today's recorders, for instance, offer automatic reversing during playback, either at the end of a reel or at a point determined by the listener. Others, through the use of an extra set of heads, permit automatic reversing during recording as well as playback. And even in moderately priced recorders you may find such extras as provisions for mixing input signals, sound-on-sound and echo-effect recording, signals to trigger slide projectors, and automatic shut-off at the end of a reel. None of these features should take precedence over basic sound quality, but their presence or absence in machines of similar price may be important in determining your final choice.

Whatever your recording needs, it is likely that several of today's near-incredible variety of recorders will meet them handily. If you take the time to sort out your own requirements, and to make unhurried appraisals of the tape equipment in the showroom, the recorder you take home can become the most versatile component in your audio system.

### INTERPRETING THE SPECIFICATIONS

Although such performance criteria as frequency response, distortion, and signal-to-noise ratio are as applicable to recorders as they are to other audio components, manufacturers' specifications for tape equipment are notoriously vague. The claims made for some machines appear to have been prompted either by wishful thinking or by the checking of a "lab sample" long since tucked in a vault for safekeeping. Such calculated vagueness often makes the specifications of a cheap recorder look more impressive than those for top-quality professional equipment. The usual criteria do count, however, and here are the ones to look for in a list of specifications—together with some suggestions for interpreting the figures.

**Frequency response.** As with all hi-fi equipment, frequency-response specifications for tape equipment are meaningless unless the uniformity of response is stated along with the range of response. Without a qualifying "plus-or-minus so many decibels," a claim has no significance. A recorder's record-playback response is more important than its playback response alone and should be within ±3 or 4 dB over the range stated. A top-quality recorder should hold the tolerance to ±2 dB. Keep in mind that the frequency response given for a complete, self-contained recorder is likely to represent the best the machine can do when used in conjunction with an external hi-fi system.

**Signal-to-noise ratio.** This specification is virtually useless as a standard of comparison for any but top-quality recorders. The ratio itself, expressed as the difference (in decibels) between a recorder's residual noise and the loudness of a test tone recorded at "standard" level, depends in great part on the meaning of "standard." Manufacturers tend to be flexible in their interpretation of the term, some choosing a recording level that produces as little as 1 per cent harmonic distortion on tape, others picking a higher level at which distortion may be 5 per cent. Frequently, the ratio given for an excellent machine (based on a low-distortion recording level) may seem inferior to the figure stated for a mediocre unit. Rather than attempt to weight the figures for various machines to compare them, it is better to rely on a listening test conducted with wide-range hi-fi equipment.

**Speed consistency.** Fortunately, the specifications for wow and flutter, the most serious kinds of speed variation in a recorder, are fairly straightforward. Both forms of trouble (whether listed separately or together in a list of specs) should be held to less than 0.25 per cent in a high-quality recorder. In some inexpensive machines, an impressive wow figure may have been measured near the middle of a 7-inch reel, since this will give a better result than a check made at the beginning or end of a reel. In general, however, wow and flutter percentages are reliable standards of comparison. Less likely to be stated in specifications (and often relatively unimportant) is the question of a recorder's long-term speed accuracy. A number of machines, including a few expensive models, run slightly faster or slower than their indicated speeds. This may be completely unimportant to anyone who intends to play back only his own recordings. If you intend to invest heavily in prerecorded tapes, however, a machine's nominal playing speeds should be as accurate as possible. Its long-term speed variation, if stated at all, should be less than 1 per cent—and preferably under 0.5 per cent. If not stated, a machine's speed accuracy can be checked with a strobe device.

**Distortion.** Specifications for distortion in tape equipment are generally too vague to be meaningful. Even when harmonic distortion at "standard" or maximum recording levels is stated—which is not often—there is no indication of the further distortion added by a recorder's playback preamplifiers. As with signal-to-noise ratio, a listening test through a high-fidelity system provides the most reliable index of quality.
A TAPE RECORDER'S PERFORMANCE CAN BE NO BETTER THAN THAT OF ITS TAPE HEADS. HERE ARE THE FACTS ABOUT A LITTLE-KNOWN BUT IMPORTANT SUBJECT.

By HERMAN BURSTEIN

ALTHOUGH tape heads are hardly larger than thimbles and have no moving parts, they are among the most expensive items in a high-quality tape recorder. Some heads cost as much as fifty dollars each, and the high prices of topnotch recorders reflect, in part, the expensiveness of the heads they use. An answer to the question of why high-quality tape heads are so expensive entails a discussion of how heads operate, of the differences among record, playback, and erase heads, and of the factors that spell superior performance for each.

A tape head can be considered an electromagnet—that is, it produces magnetic fields when electrical currents are passed through it. It consists of a roughly circular iron core with a coil of wire wound on it, as shown in Figure 1. This assembly is enclosed in a special type of metal housing that shields the coil, preventing it from picking up hum. The most critical section of the assembly is the gap—the break in the core at the point where the core meets the tape. In recording and erasing, a magnetic field generated by electrical currents flowing in the coil travels through the core, and through the tape, at the gap. In playback, magnetic fields from the tape enter the core at its gap and induce electrical currents in the coil.

Now let us consider each type of tape-recorder head in some detail.

The Record Head. A varying electrical current, which represents the audio signal to be recorded, is fed into the coil of the record head (see Figure 2). The magnetic field that is developed passes through the magnetic coating of the moving tape immediately adjacent to the core gap. The tape thus becomes magnetized in accordance with the fluctuations of the electrical audio signal that is applied to the coil. The magnetic state of a given section of tape undergoes changes as it travels by the gap, but remains in the state of magnetization existing at the instant it leaves the trailing edge of the gap.

In addition to the audio-signal current, a high-frequency current called "bias" is simultaneously fed to the record head. The role of bias is something like that of a catalytic agent in a chemical reaction. The bias as such is not recorded, but it reduces distortion and increases the amount of signal that can be recorded on the tape. (Unfortunately, bias has an undesirable side effect, in that it causes some loss of high frequencies. The recently developed crossfield-head system, in which the bias is supplied through a separate head gap, is said to minimize or eliminate this effect.)

Because of differences in design and materials, record heads differ in the strengths of the magnetic fields they produce for a given amount of input signal. To produce a desired magnetic field, one head, for example, might require 1 milliamperc of bias current and 0.1 milliamperc of audio current. Another record head might require currents 10 times as great. Not only do the heads' requirements differ, but different tapes also require differing currents for optimum performance. The perfectionist will therefore want to adjust the amount of current fed to the record head of his recorder to suit the tape he customarily uses—although the improvement in performance is generally small.

The Playback Head. The signal recorded on the tape is in effect a series of bar magnets laid end to end, each with a north and a south pole. These "magnets" vary in length (determined by the frequency of the recorded sig-
nal) and strength (determined by the intensity of the original signal). During playback, the varying magnetic fields produced by these magnets when they travel by the playback head's gap induce a varying voltage in its coil. When the playback head's gap becomes too wide, and/or the tape speed too slow, treble loss results. The relationship of the gap width and tape speed to the high-frequency response \( f \) of the playback head is expressed by the formula 
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\frac{S}{2G} \]
where \( S \) is tape speed in ips and \( G \) is the gap width in fractions of an inch. The formula tells us that a typical modern head with a gap width of 0.0001 inch (100 microinches) has a potential usable response to 35,000 cycles at 7\( \frac{1}{2} \) ips, 17,500 cycles at 33\( \frac{1}{4} \) ips, and about 8,000 cycles at 17\( \frac{1}{8} \) ips. Some heads have gaps as narrow as 40 microinches, permitting response to nearly 12,000 cycles at a speed of only 1\( \frac{3}{16} \) ips. The fact that these theoretical responses are not, in general, realized in practice is due to a number of factors, which were spelled out in detail in the article titled "The Long-Long-Playing Tape Recorder" in the March 1964 issue of HiFi/Stereo Review.

**The Erase Head.** An erase head is designed to produce a relatively powerful alternating magnetic field that destroys any previous magnetic patterns on the tape. First the oxide particles are strongly magnetized in one polarity (north pole facing a given direction), then in the opposite direction, again in the first direction, and so forth. As the particles move away from the erase head, they go through many alternate magnetizations of diminishing strength, gradually trailing away to zero.

The high-frequency signal supplied to the record head for bias purposes is nearly always used to energize the erase head as well. The frequency of the bias signal should be higher than 50,000 to avoid audible "beating" (in the form of squeals) between the bias frequency and harmonics of the audio frequencies being recorded. For example, a bias frequency of 50,000 cycles and a strong audio harmonic of 45,000 cycles could produce a beat tone of 5,000 cycles. Unfortunately, erase heads grow less efficient as the bias frequency is increased, and an attempt to improve the performance of the record head by increasing the bias frequency may impair the performance of both heads.

**Many home tape recorders use the same head for both recording and playback. This usually involves a compromise in performance, because the design requirements are somewhat different for a record and a playback head.**

A playback head is designed to convert the magnetic flux in its gap (from the tape) into output voltage. To do this efficiently, and thereby to achieve a good signal-to-noise ratio, the coil must have many thousands of turns of wire. In technical terms, a high-impedance head is required. For the record head, on the other hand, fewer turns—and a lower impedance—are desirable. This is so that a moderate voltage can drive the requisite current through the head and thus develop a magnetic field of the necessary strength. If the same head is to be used for both recording and playback, a compromise impedance must be employed. Incidentally, the erase head is also a current-operated device, and its impedance should also be low for best results.

Another respect in which basic design requirements differ among the three heads is gap width. For high efficiency in recording, a relatively wide gap is desirable, because the magnetic field representing the signal tends to jump directly across a narrow gap rather than take an arc-shaped course through the tape. In other words, the narrower the gap, the less magnetic flux reaches the tape. A head designed solely for recording, therefore, will have a relatively wide gap, ranging from about 250 to 1,000...
microinches. But if a head is intended for playback (or record-playback), it must have a gap of 100 microinches or less in order to reproduce high frequencies at tape speeds slower than 7 1/2 ips. On the other hand, if the playback or record-playback head is to be used only at speeds of 7 1/2 ips or faster, its gap can be increased to about 200 microinches for increased efficiency.

An erase head has a relatively wide gap in order to subject each section of tape to the erasing field for as long as possible. A 5,000-microinch gap is typical for an erase head.

Now let us examine some important aspects of tape-head performance, and see what design factors are involved.

Treble response. A playback head must have a narrow gap in order to provide good treble response at low tape speeds. In addition, the edges of the gap must be sharp, smooth, and parallel. Otherwise the gap, although physically narrow, will behave magnetically as though it were much wider. When the machine employs a tape-tension system instead of pressure pads, the shape of the face of the head becomes important, in that treble response is influenced by the closeness of the tape-to-head contact at the gap. Stereo heads pose the problem of gap colinearity, as illustrated in Figure 3. That is, the two gaps must be in exactly the same straight line, or the head cannot be adjusted for accurate azimuth alignment for both gaps. If the gaps are not colinear, treble response must suffer on one channel or the other—or else on both channels if a compromise azimuth adjustment is made.

Low distortion. Because tape magnetization is determined by the trailing edge of the record head's gap, this edge should be extremely straight and sharp. The record head should have a relatively wide gap to permit the lower frequencies to penetrate deeply into the tape's magnetic coating and thereby be recorded at minimum distortion. Use of a narrow-gap dual-function record-playback head for recording purposes may cause distortion at low frequencies. If the record head is poorly made and inefficient—because of the type of core material employed, an excessively narrow gap, or other factors—a large audio current may be needed to drive it, and such a current is available only at the cost of increased distortion.

Signal-to-noise ratio. The amount of signal voltage generated by the playback head can be maximized not only by using a large number of turns of wire in the coil but also by using efficient magnetic material in the core. Output also depends on gap width: as the gap is made narrower, output decreases. For a given high-frequency response, a laminated-core head permits a wider gap and greater output. It is worth noting that there is nothing to gain and something to lose (signal-to-noise ratio) by using a playback head with a very narrow gap if the machine's slowest speed is 7 1/2 ips.

Hum pickup. The question of hum is part of the signal-to-noise problem, but it merits separate discussion because of its importance. The signal output of the playback head is extremely small and gets smaller as the frequency of the signal goes lower. Bass frequencies therefore require a great deal of boost in the playback amplifier. Any hum picked up by the playback head is also amplified and therefore likely to become annoying. High-quality playback heads are encased in a special metal housing that acts as a shield against hum sources, such as motors and transformers. Further protection against hum may be provided by shielding materials that are interposed between the head assembly and other parts of the machine. The construction of the playback head's coil and core also affects hum pickup.

Crosstalk. The signal in one section of a stereo head tends to leak through to the other section because of interaction between the two separate magnetic fields within the head. To minimize crosstalk, the maker of a high-quality head strives for maximum physical separation between the head sections (consistent with performance requirements), and uses shielding material not only in the casing of the head, but between the two sections, as shown in Figure 1.

Erasure. Not all erase heads completely remove previous recordings from the tape. Low frequencies, which penetrate deeply into the tape's magnetic coating, are a particular problem. The effectiveness of the erase head's magnetic field depends in great part upon the head's core

This simplified drawing shows a full-track head before (left) and after (right) excessive wear has widened its critical gap.
material. It also depends upon an optimum gap width—wide enough to permit the field to span and penetrate an appreciable portion of the tape coating, yet not so wide that the efficiency of the head is reduced. Some heads employ double erase gaps, side by side, so that the tape is subjected to two erasing fields in succession.

**Life expectancy.** In addition to greater efficiency, laminated-core construction makes for increased head life because it permits a deeper gap. The deeper the gap, the greater the amount of wear that can be sustained before the gap widens and a new head is needed. A laminated-core head should wear approximately twice as long as a solid-core head.

**Having** examined what a designer does to maximize tape-head performance and life, let us see what steps the home recordist can take toward the same ends.

To maintain good treble response, the heads and pressure pads (if any) should be cleaned and the heads demagnetized after each eight to ten hours of use. The azimuth alignment should be checked perhaps once or twice a year, also in the interest of treble response. To insure long head life, the careful recordist should use tapes of good quality, since low-quality tapes may cause rapid head wear through abrasion. On this same point, avoid tape-to-head contact during fast rewind and fast forward. One manufacturer has noted that head life can be about doubled if the machine uses tape lifters during fast forward and rewind. If a machine has no lifters, the tape can usually be removed from the loading slot and wound directly from reel to reel.

Care must be exercised not to scratch the face of the head during cleaning or demagnetizing. It is a good idea to put cellophane tape around the part of the demagnetizer that contacts the heads. Similarly, precautions must be taken against subjecting the heads to strong external magnetic fields, to temperature extremes, and to mechanical shocks.

Ultimately, the head life a user can expect depends upon his choice of tape machine. The better machines are designed and finely adjusted to minimize head wear. Good mechanical adjustment, aside from influencing flutter, wow, and output, also has a contribution to make in the area of head life. Tape speed is another factor to be considered, in that one can expect more hours of head life for slow-speed operation than for fast-speed.

Except for a performance check by a competent technician with the proper instruments, there is no infallible guide as to when a head should be replaced. The number of hours of use is not a reliable guide because so much depends, as indicated above, on the specific transport mechanism and the tape used.

When the recorder is new, it is a good plan to tape a disc that has good high-frequency response—with cymbals, triangles and so forth—and compare the tape reproduction with the original. Note the difference, if any, and whether the use of the treble tone controls on the amplifier can make the tape sound closer to the original. Note down the control settings and degree of correspondence. Assuming that the recording was made at the tape machine’s highest speed (probably 7½ ips), where the fidelity is greatest, and that the treble response was originally satisfactory, the same A-B comparison a year or two later will reveal whether there has been a significant decline in treble response. If there has, the head or heads involved in recording and playback should be inspected for wear. There is, of course, the possibility that treble loss is due instead to dirt on the heads, magnetization of the heads, azimuth misalignment, a change in the bias current fed to the record head, or weak tubes.

One can judge the efficiency of the erase head by ear. Record something on the tape, erase it (by putting it through the record process again, but this time with no input signal), play the tape, and listen for any remaining signal. If the head once erased well and now it doesn’t, this should be apparent. But although it may appear that the erase head should be replaced, this is not necessarily so. Perhaps insufficient high-frequency current is being supplied to the erase head, because of the deterioration of some electronic component. Perhaps the erase head is mispositioned vertically, so that its gap fails to span the same portion of the tape as the gap of the record head.

In the case of a playback or record-playback head, the gap is ordinarily so fine as to be invisible to the unaided eye. If the gap is readily visible, the head is suspect. If the gap of a record or playback or erase head, when viewed through a magnifying lens, appears ragged rather than perfectly straight and sharp, the head is unlikely to perform well. Visual inspection should take into account the general appearance of the face of the head. If the face appears scored or otherwise greatly worn, it may be a candidate for replacement.

It is highly desirable that a replacement head be physically and electrically identical to the original head. Substantial circuit adjustments or changes may be necessary if the replacement head has different electrical characteristics. And even though the replacement is an identical unit, it is a good idea to have a technician check the bias and audio currents fed to the record head, and the high-frequency current fed to the erase head. Should the replacement not be an identical unit, it is imperative that these checks be made, followed by whatever circuit adjustments may be necessary.

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In my capacity as a writer and editor, I use a tape recorder for interviews. In my other capacity, that of father to three children, I frequently use a recorder to preserve the voices of my children as they grow toward adulthood. Thus, in the preparation of this article, I have drawn mostly on my own experiences. But I have also received the advice of some professionals in the recording field—the best-known of these being Allen Funt. Mr. Funt is, of course, the creator of the television program called Candid Camera, and his specialty is capturing the wonder and wisdom of childhood on film and tape.

When preparing to tape-record children, the first thing to decide is where to put the microphone. There are two schools of thought here. Mr. Funt, representing one school, advocates the use of a concealed microphone, so that the child doesn’t know he is being recorded, and is therefore unself-conscious. It has been my experience, however, that a concealed-microphone interview is very tricky to arrange in the typical household. Every family has a routine the children are familiar with, and any departure from it will arouse suspicion. If the children usually do their lessons, or play, or watch television after dinner, they will know something’s afoot if they are suddenly called to the living room and asked a series of questions. Because of this, I have been led to use an exposed microphone (which greatly simplifies the equipment setup), and to explain to the child that we are going to make a recording.

But regardless of whether the microphone is concealed or out in plain view, you will want a long microphone cable. Most tape-recorder microphones come with only about six feet of cable, and this is not long enough for any kind of recording flexibility. You can purchase a ready-made extension cable, you can have one made up for you by a television repairman, or you can make your own. If you wire your own, note that if the microphone has a built-in switch, you may need a cable that has two or more conducting wires in addition to its braided-metal shield. The appropriate cable and connectors can be purchased at any large radio-parts store. The wires in the cable are color-coded, so as long as your extension cable connects the same color of wire to the same pin number on the connectors at each end of the cable, you can’t go wrong.

If you decide to use a concealed microphone, bow you...
Some friends of "Candid Camera" man Allen Funt are more relaxed when the mike is hidden—here, it is in a toy train's smokestack.

conceal it will depend on the recording situation and the type of microphone you are using. A simple way of concealing the microphone is to place it inside a familiar object in the room—perhaps in a basket of fruit, or a magazine rack. This is assuming, of course, that a small microphone is used. Larger microphones can also be employed, but disguising them takes a bit more in the way of ingenuity. However, with some paper and some ribbon and wool, you can transform almost any microphone into a toy or a puppet. Examples are shown in the accompanying photographs. Whatever the disguise, be sure that the microphone is sensitive enough to pick up the voices without your having to turn up the tape recorder's volume control so high that hum and noise become obtrusive. Also, when hiding the microphone in something, make certain the sound can get through to the microphone. A piece of porous cloth will pass sound well enough for most purposes. In all cases, of course, you should test out the system thoroughly before putting it to use.

Another very satisfactory technique is to use a wireless microphone, such as the Kinematix Imp II/M-222 ($50) or the Cadre C-50 ($45). These units, despite their small size (same as a pack of cigarettes) are combination microphones and FM transmitters. They pick up the sound and broadcast it to your FM tuner—which can be several rooms away—without wires. From there, the signal can be fed to your tape recorder.

One of Allen Funt's favorite devices for concealing a microphone is a small toy train. Its smokestack is a disguised miniature microphone. Should the child reach for the train, Mr. Funt reaches for it also, in a natural way. It stays put. My own attempts at hiding microphones have not always been rousing successes, as suggested earlier. On one occasion, I prepared an elaborate scheme to tape-record my young son. I hid one of the Kinematix units in the zip-up stomach pocket of a Teddy bear, and carefully set up everything in the living room. During dinner, we had some family discussions about the importance of "serious conversations," and after dinner, while Mommy did the dishes, my son and I retired to the living room for some "serious talk." Right off the hat, my son spotted the Teddy bear—and dutifully picked it up and carried it back to his bedroom, where it belonged. Then he returned to the living room, saying, "Let's talk!"

(Continued overleaf)
Many potentially fine recordings of children are spoiled by inadequate advance preparation. At a crucial point someone enters the room, or a car passes outside, or the telephone rings. Fortunately, these factors are fairly easy to control. All that is necessary is to close the windows and doors in advance, and put up a sign reading, "Recording in progress—do not disturb." As for the telephone, just lift the receiver off its cradle. Any important callers are sure to try again.

Aside from preparing your recording setup thoroughly, the main secret of recording children is to use plenty of tape. Allen Funt tells me he exposes over forty thousand feet of film for each half-hour show. Then he selects and uses the best. By the same token, you should expect that only about one third of what you record will be worth saving. But don’t forget that you can erase and re-use the dull sections of the tape for making other recordings.

I am assuming, of course, that you are handy enough with a tape splicer to edit the tapes, separating the good parts from the dull ones. (Incidentally, if you plan to do even simple splicing, you must record only in one direction. Otherwise, the tapes will be impossible to splice.)

People quite often develop an interest in tape recorders soon after they have had their first child. They want to preserve the sounds their baby is making, or perhaps send a recording to a doting but distant grandparent. But babies are far from being easy subjects to record. In fact, for a recordist, babies are notoriously uncooperative—if not innately perverse. You can sit there holding the microphone in front of them, tape running out, and they calmly drop off to sleep. At best, you will get a series of coos and gurgles, and if you are really lucky, an occasional noise that can be interpreted as a "mamma" or "dadda." The parents, meanwhile, are doing all they can to make the baby "talk." What you usually get on tape as a result of this is some pretty awful stuff from the parents and very little, if anything, from the baby.

The first thing to do, therefore, is get the parents out of the room. Then, using a piece of string, suspend the microphone between the sides of the crib so it hangs down over the baby. It might be well to do some microphone-camouflaging at this point, for many an infant has been known to stare by the hour at a shiny microphone without emitting a peep. You might get things going by tickling the baby's foot. Most infants will react with a chuckle or two. Repeat the tickling when necessary. After you have enough happy sounds, apply a gentle pinch where it will do the most good, and you will get a high-fidelity howl. Obviously, it is best not to have the parents present at this stage.

Preschool children are a special joy to work with. A child's world is full of wonder. How does the milkman know how much milk to leave? Why does water turn to ice in the refrigerator? What makes the toast pop up? It's a wonderful, wonderful world.

Preschool children are often shy, but once you bring them out of their shells, they'll talk on almost any topic, and at length. Allen Funt has a sure-fire way of warming them up. He simply asks the child to blow out a match. When the child blows out the match, he also blows away his inhibitions. And by praising the child for a job well-

One way to get better recordings of preschool children is to disguise the microphones—perhaps making them look like toys or puppets.
MICROPHONES AND MICROPHONING

Special consideration should be given to the microphones and microphoning techniques used when recording children. The type of microphone used will determine, to some extent, the amount of background noise heard on the tape. When using an omnidirectional microphone (most microphones supplied with tape recorders are omnidirectional), best results—in terms of background noise—will be obtained when the subject is from one to three feet from the microphone. A directional or cardioid-pickup microphone, which has a rather narrow sensitivity pattern, makes it easier to record at a distance, but may make it difficult to pick up both sides of an interview.

Some radio-parts companies offer relatively inexpensive “spy” microphones that look like tie clips or wrist watches. Although these are convenient to use, their limited frequency response may result in an unnatural voice quality, or their output voltage may not be high enough for your recorder. This type of microphone should therefore be purchased only with a money-back guarantee. Also listed in radio-parts catalogs are a number of inexpensive crystal microphone elements and lapel microphones that are useful for unobtrusive microphoning. For example, Lafayette Radio lists a high-output 1½-inch-diameter lapel microphone (Number 99C-4510) for $1.95.

The most obvious place to record a child—the child’s own playroom—is unfortunately one of the worst possible recording locations. A child usually will not stay quietly seated and “on mike” when he is in his own room, and the typical playroom—with its hard floors and unpadded furniture—has terrible acoustics. For this reason, it is best to record in a living room or a bedroom, where drapes, rugs, and upholstered furniture will absorb echoes.

done, you can put yourself on his side. Don’t be afraid, incidentally, to argue with a child while making a recording. Go ahead, but do it in such a way that you can edit your voice out of the tape later. And don’t settle for “yes” or “no” answers, either. Keep things moving with a “How come?” or “Why?”

Little girls are very clothes-conscious, and a comment about a little girl’s dress is almost guaranteed to start her talking. Allen Funt sometimes asks a little girl what books she has read lately, and then acts out a playlet with himself as the hero and the child as the heroine. Remember that in tape-recording children, all is fair. You can even tell a white lie if it will help. For example, I was recently asked to record a youngster who had a curiously deep, gravelly voice. Unfortunately, whenever the tape recorder was turned on the kid would clam up. Finally, I told the child there was a man in the microphone (whose name was, of course, Mike), and that he might be induced to come out and play. What followed was threats, cajolery, coaxing—anything to get Mike to come out—and the result was a beautiful tape that delineated the child’s personality better than any photograph could.

When it comes to recording school-age children, I agree with Allen Funt about concealing the microphone and tape recorder. Most of today’s kids are pretty sharp. If you give them an inkling they are being taped, they’ll be “on” in no time flat. But you will have to hide the microphone carefully, and then be sure to stay within its pickup range. (Incidentally, Kinematix has announced a gadget that adjusts the recording volume automatically—this should be useful in recording children of any age.)

Try engaging a child in a serious conversation. Almost all youngsters know what they want to be when they grow up. Little girls want to be nurses, or ballet dancers, or perhaps just mothers; and little boys run the gamut from policeman to doctor to garbage man and back again. Be sure to ask them why they’ve chosen a particular occupation. Sometimes you will get some startling answers. Allen Funt, for example, once asked a little boy why he wanted to be a doctor, expecting some noble reply. The answer was, “Because doctors kin stick needles in people.”

You’ll find that you can do marvelous things with a child and a tape recorder. You will capture irreplaceable moments that would otherwise be lost forever. At the very least you will get new insights into the way children think. And if you are lucky, children may show you the way into their magic world, and you will rediscover, through their eyes, the special wonders that surround them. It will be the greatest discovery of your life. It was for me.

The Kinematix Imp II/M-222 (left) and Cadre C-50 (right) wireless microphones are readily concealable in a cigarette pack.

The Kinematix Imp II/M-222 (left) and Cadre C-50 (right) wireless microphones are readily concealable in a cigarette pack.
SIGNAL-TO-NOISE RATIO IN TAPE RECORDERS

IS THE RECORDER YOU PLAN TO BUY SUFFICIENTLY FREE OF HUM AND HISS?
HERE ARE SOME SIMPLE CHECKS YOU CAN MAKE IN THE STORE.

By HERMAN BURSTEIN

HIGH-FIDELITY buffs are usually far more concerned with a component’s frequency response, distortion, or power output than with its noise level. Nonetheless, noise—or, more properly, the absence of it—is an important factor in high fidelity. The signal-to-noise ratio (abbreviated S/N) indicates how the strength of the desired audio signal compares with that of the noise. "Noise" includes hum, hiss, sputter—in fact, any undesired signal—originating either in the amplifying or reproducing equipment.

Noise problems beset all high-fidelity components (and all electronic equipment, for that matter), but they are particularly troublesome in tape recorders. Possibly because of this, S/N specifications of tape recorders are frequently confusing, and sometimes are not given at all.

Noise arises in tape recorders from several causes. To begin with, the maximum output voltage of a tape-recorder head is minute—about one-quarter of that produced by the usual magnetic phono cartridge. This is important because, since all amplifiers either pick up or produce noise, the smaller the input signal, the more likely it is to be overshadowed by noise during playback. And with every reduction in track width (as we have gone from full-track to half-track to quarter-track recording), the head puts out less signal, and the ratio between signal strength and tape-recorder noise level decreases.

Another difficulty results from bass compensation. The signal coming out of a recorder’s playback head—like that from magnetic phono cartridges—requires frequency compensation in the form of bass boost. This inevitably and unfortunately accentuates hum. As a matter of fact, at 60 cycles—the frequency at which hum is most commonly troublesome—the NAB 71/2 ips tape playback curve calls for more than twice as much boost as the RIAA disc playback curve.

In addition to the internal noises that trouble all electronic equipment, tape recorders must further contend with noise caused by the bias oscillator. (Bias is the high-frequency signal fed to the record head along with the audio signal in order to lower distortion and improve dynamic range.) Unless the bias waveform is completely symmetrical, high-frequency noise is registered on the tape along with the recorded signal. Also falling into the category of noise are the traces of signal left on the tape by an imperfect erase head.

All of this helps explain why a half-track tape recorder with an S/N of 55 db is considered excellent, even though a 55-db S/N is not particularly remarkable in an electronic component, such as a power amplifier. And if a tape recorder can achieve S/N of over 50 db on a quarter-track (rather than a half-track) basis, this is indeed cause for rejoicing. More commonly, at 71/2 ips, quarter-track home tape recorders will have an S/N ranging from 45 to 50 db, which is usually satisfactory.

How does one check S/N? A 400-cps sine-wave test signal is recorded on a tape at a level that produces 3 per cent harmonic distortion of the signal. (On musical material, peak signals generally occur around 400 cycles, and experience has shown that a recording is essentially distortion-free if peak signals do not exceed about 3 per cent harmonic distortion.) The tape is played back, and the amount of -400-cps signal recorded on the tape is measured. The same length of tape is again put through the recording process, but this time with no input signal. The "blank" tape is then played back, and its output level is measured once more. Whatever output there is consists...
of hum and hiss produced by the record and playback amplifiers, noise caused by the bias waveform, and imperfectly erased remnants of the previously recorded 400-cps test signal. The ratio of the first measurement to the second, expressed in decibels, is the signal-to-noise ratio.

The above discussion is based on the accepted method of measuring S/N, and is the one used by leading tape-recorder manufacturers. Other methods are also used, and an explanation of these other methods, and how to convert the resultant S/N specifications to the standard, are given in the accompanying box. Unfortunately, in a shopping situation this information may be of slight help. You may find that there are no specifications available, or that what specifications there are appear to have been produced in the manufacturer's advertising department, rather than in the laboratory.

Here, then, are some in-store tests you can make that in all cases should outrank the specification sheets in importance.

Using fresh or bulk-erased tape, set up the machine to record your voice. Use either the recorder's microphone or a standard good-quality unit, and adjust the recording gain appropriately. Usually this will mean that the recorder's microphone (without readjusting any of the controls) and allow the machine to run for another thirty seconds or so before shutting it off.

Next rewind the tape and play it back through high-quality equipment, adjusting the recorder's playback volume control until your voice is reproduced at lifelike volume. At this volume level, hum and hiss should be barely audible in comparison to your voice. Let the tape proceed to the thirty-second unrecorded portion. If the noise level now drops even further, this indicates that much of the noise originated in the recording room and is not the fault in the recorder.

Now, stop the tape (with the pause control, if one is present), but otherwise leave the machine in the playback mode. Turn up the volume control almost to the maximum, and note the noise level. Now restart the tape. There should be a perceptible increase in noise. This noise comes from the tape, rather than from the machine. If there is no increase in noise when the tape starts running, this suggests that the tape machine is producing excessive noise—so much that the noise from the recorder is masking the normal slight hiss from the tape.

Another test is to record a stereo record on tape, and then play back the original disc and the taped copy simultaneously. Switch back and forth between the two, and listen for how much more hum and hiss is on the taped version than on the original record. The very best recorders will add only a very small—sometimes unnoticeable—amount of noise to the recorded program.

### CONVERTING SIGNAL-TO-NOISE SPECIFICATIONS

There are a number of ways of specifying S/N in addition to the generally accepted way described in the accompanying article. Sometimes the reference tone on the tape (usually 400 cycles but occasionally 250, 700, or 1,000 cps) is recorded at a 1, 2, or 3 per cent harmonic-distortion level—or is even the maximum signal that can be put on the tape (tape saturation). The reference tone may also be 6 db below saturation or 12 db below saturation.

Fairly often the reference level is described as "0 VU" or, synonymously, as being "at operating level." This applies to machines with VU meters, and means that the reference level is that which drives the VU meter to the 0 mark when recording. Or the reference level may be stated as —10 VU, which is simply 10 db lower than the 0 VU point.

The S/N is occasionally determined on the basis of "a reference tape" or, more explicitly, on the basis of "a reference tone at standard operating level." This refers to a test tape that contains a recorded test tone with which the machine's noise level can be compared. Various S/N specifications can be compared by converting them to the standard specifications based on 3 per cent harmonic distortion. For example:

- **Reference tone at 1 per cent harmonic distortion:** Add 6 to 8 db. For example, if S/N is rated at 48 db based on a reference tone at 1 per cent distortion, the rating becomes about 54 to 56 db based on 3 per cent distortion.
- **Reference tone at 2 per cent harmonic distortion:** Add 3 to 4 db to the S/N specification.
- **Reference tone at 5 per cent harmonic distortion:** Subtract about 6 db from the S/N specification.

**Reference tone at tape saturation:** Subtract about 8 db from the S/N rating.

**Reference tone 6 db below tape saturation:** This is roughly equivalent to S/N based on 3 per cent distortion. But to be on the safe side, subtract about 2 db from the S/N specification given.

**Reference tone at 0 VU (or at operating level):** Find out from the recorder's specifications or from the manufacturer how much distortion occurs when recording a 400-cps signal at a VU-meter level of 0. If 0 VU corresponds to 1 per cent distortion, add 6 to 8 db to the S/N specification. If 0 VU corresponds to 2 per cent distortion, add 3 to 4 db. If 0 VU corresponds to 3 per cent distortion, add nothing.

**Reference tone at —10 VU:** First add 10 db to the S/N specification. Then follow the procedure for the reference tone at 0 VU. For example, assume the S/N rating is 35 db relative to —10 VU, and the machine's specifications state that recording a 400-cycle signal at 0 VU results in 1 per cent harmonic distortion. Adding 10 db brings the S/N rating up to 45 db. Adding another 6 to 8 db (because 0 VU denotes 1 per cent rather than 3 per cent distortion) results in S/N of 51 to 53 db.

S/N based on "reference tape" or "reference tone at standard operating level." Generally the test tone referred to is at 1 per cent harmonic distortion. For example, Ampex test tape 31325-01 uses 7 1/2 ips, contains a 700-cycle "reference tone at operating level" having 1 per cent distortion. Accordingly, add 6 to 8 db to the S/N specification.

**No reference given:** Write to the manufacturer and ask for the references on which S/N specification is based.
WHAT MAKES A GOOD
A LOOK AT SOME OF THE MOST SIGNIFICANT PERFORMANCE CHARACTERISTICS OF TAPE,

Anyone who purchases recording tape soon discovers that a "name-brand" tape may cost twice as much as a "white-box" or "non-name-brand" tape. The home recordist quite naturally wants to know what he will get for the extra money he is asked to spend for name-brand tape. For an answer to this question, we must examine the factors that go into the production of a quality recording tape.

In essence, magnetic tape consists of a coating of iron-oxide particles on a plastic base material. The most popular type of home recording tape is wound 1,200 feet to the 7-inch reel, and has a coating about 0.5 mil thick (a mil is one-thousandth of an inch) and a base about 1.5 mils thick. Long-playing tapes have somewhat thinner coatings and much thinner bases.

The magnetic coating for the tape is made by mixing the iron oxide together with resins, binders, solvents, and other additives. These all go into a large tank that looks (and works) something like a cement mixer. In the revolving cylinder of the tank are steel balls that grind and blend the coating materials into an extremely fine viscous mixture. This mixture is applied to the tape base material, which at the time is in the form of rolls about two feet wide. Before the mixture dries, the tape is exposed to a strong magnetic field. This field physically orients the iron-oxide particles in a manner optimum for audio tape recorders—that is, parallel to the length of the tape. (A different orientation, incidentally, is optimum for video tape.) The tape is then slit into 1/4-inch strips and wound onto reels. The winding must be uniform and at constant tension.

A tape's magnetic characteristics determine its frequency response, sensitivity, output, distortion, noise, and print-through. Or higher output might be achieved at the price of treble loss. The formulation is determined also with an eye to the characteristics of the tape recorders currently available. It obviously would be foolish to design a tape that would be incompatible with the general run of home recorders.

The magnetic performance of a tape further depends on physical factors. These include the even dispersion of the iron-oxide particles in their resin binder, the thickness and uniformity of the oxide coating, and the thickness and uniformity of the base. All of these are highly critical and require elaborate quality-control measures at every stage of manufacturing. One manufacturer, for example, reports that more than one hundred quality-control tests are performed on each batch of tape produced.
made on each batch of tape, from the raw materials to the end product. Each reel must be consistent throughout its length, and standards must be maintained from one reel to another.

Now let us examine the specific effects that various aspects of tape manufacture have on the most important performance characteristics.

**High-Frequency Response.** Every tape has certain inherent difficulties in recording the higher frequencies. These treble losses are partly or completely compensated for by the machine’s record and playback equalization. However, there are limits to the amount of treble-boost equalization that can be used without substantially increasing noise and distortion. By modifying the oxide formulation, however, the manufacturer can boost a tape’s treble sensitivity with but small sacrifice of other desirable characteristics. The thickness of the oxide coating also plays a part in the tape’s treble response. (Good treble response is also facilitated by certain physical characteristics of the tape, as will be discussed later.)

**Distortion and Output.** These are interrelated characteristics because output denotes the maximum amount of signal that can be recorded on the tape for a given amount of harmonic distortion—usually specified as 3 per cent. The greater the tape’s output, the greater the margin in playback between the audio signal and the noise produced by the tape and the machine—in other words, the better the signal-to-noise ratio. The amount of output from the tape is determined by the specific magnetic materials that are used in the oxide coating, and by the thickness of the coating.

**Noise.** There are two main types of tape noise. One is hiss, which is caused by randomly oriented magnetic groupings in the oxide coating. This noise is inherent in all tapes, but the better the tape, the lower the noise will be on playback. The other kind of tape noise is modulation noise, which occurs only in the presence of an audio signal and varies in intensity with the signal level. Modulation noise decreases the transparency and cleanliness of the reproduced sound. It is caused by variations in the thickness and particle distribution of the oxide coating. These oxide variations are reproduced as a fuzziness behind the signal in playback. Tape noise is kept to a minimum by maintaining careful control of the oxide formulation, by dispersing the oxide particles evenly throughout the coating, and by applying the coating with a uniform thickness. It should be noted that the tape manufacturer deals with tolerances of a few millionths of an inch in controlling the thickness of the coating.

**Sensitivity.** This denotes the amount of signal that is recorded on the tape when a magnetic field of a given
strength (from a record head) is applied. High sensitivity is desirable, for this results in improved signal-to-noise ratios in both recording and playback, but it does increase the risk of print-through. The tape should also be uniformly sensitive. Otherwise there would be variations in output from one section of the tape to another, or from one reel to another. This would be particularly noticeable if tapes from different reels were spliced together. High-quality tapes provide sensitivity that is within $1/4$ db throughout a reel and within $1/2$ db between tape reels of the same type number. The degree and uniformity of sensitivity are determined by the type of oxide and how well it is dispersed. The orientation of the magnetic-oxide particles also contributes to high sensitivity.

**Print-through.** Because tape is stored in tightly wound layers, there is a tendency for high-level, low-frequency recorded signals to be partially transferred by magnetic action to adjacent tape layers. This print-through sound may not be noticeable immediately after a tape is recorded. However, it intensifies with storage time, so that a month or a year after the recording was made, the print-through may become objectionable. The problem is aggravated by the use of thin-base tape because a thin base offers less of a barrier to print-through than does the conventional 1 1/2-mil base. Manufacturers cope with print-through by adjusting the oxide formulation and suitably proportioning the thickness of the coating and the base.

**Bias Effects.** Bias, which is a high-frequency current fed to the tape recorder's record head along with the audio signal, is needed to reduce the distortion and increase the sensitivity of the tape. Unfortunately, it also causes treble loss. Therefore, the amount of bias current used is the best compromise among the requirements for minimum distortion, maximum tape sensitivity, and acceptable treble loss. (It is perhaps worth noting here that the crossfield head was developed to reduce treble losses during recording.) In any case, it is desirable that the tape perform adequately even if the bias is not optimum. It is also desirable that the amount of bias required, which normally differs from one brand or type of tape to another, remain a consistent value from reel to reel within a given brand and type of tape. Uniformity of the oxide formulation is the answer here.

**Dropouts.** This refers to brief but definite reductions in signal level during playback, and is caused by variations in coating thickness or dispersion. The problem is more severe in quarter-track operation than in half-track.

It is not generally appreciated that the base material has as vital a role to play in a tape's overall performance as does its oxide coating. One of the obvious characteristics to be considered is the base's dimensional accuracy. The tape must be exactly 1/4-inch wide. If it is too wide, the tape will not ride properly in the tape guides. If it is too narrow, the tape will follow an erratic path as it crosses the heads. Any deviation from the correct path is equivalent to an incorrect azimuth and therefore results in treble loss. (Azimuth is the angle of the head gap with respect to the length of the tape, and to avoid serious treble loss it is vital that an angle of exactly 90 degrees be maintained in record and playback.) To facilitate steady, straight passage through the guides, the tape edges must
also be smooth, without undulations, serrations, or other irregularities. Dimensional stability is also necessary in that if the tape has a tendency to stretch, the recorded signal will be distorted. If the tape tends to curl or cup, close contact between the tape and the heads will be prevented, causing treble loss.

Intimate tape-to-head contact further requires that the magnetic coating be extremely smooth. If the iron-oxide particles tend to clump, or if foreign particles are embedded in the coating, they will prevent the tape from making perfect contact with the heads. Hence meticulous care is needed to insure an even dispersal of the iron oxide throughout the coating material, and in applying the coating to the base. The oxide coating also must be physically tough, for otherwise an excessive amount of it will rub off on the heads, shortening the life of the tape and impairing the performance of the heads. In addition to its toughness, the coating must be smooth enough not to cause excessive head wear through abrasion. For this reason, many tapes contain lubricating agents.

To minimize wow and flutter, tape squeal, and head wear, the oxide coating must contain a suitable amount of lubricant—usually a silicone. Yet it must not have too much lubricant, because this may cause the tape to slip or weave as it passes between the capstan and pressure roller, resulting in unsteady speed.

Abrupt starts and stops, and high-speed shuttling back and forth, subject the tape to sudden changes in tension that tend to break or stretch it. Hence the manufacturer is concerned with "break strength" and "yield strength," which express the pounds of force required to break the tape or stretch it a given amount. If a tape stretches considerably before it breaks, the stretched section is no longer usable and must be cut out before splicing; in the case of a recorded tape the resultant deletion will be quite noticeable. But if a tape stretches only a little before breaking, the effect on the recorded sound is insignificant.

The physical characteristics of a tape include its ability to withstand the ravages of time, temperature, and humidity. Will these factors deform the tape? Embrittle it? Cause the coating to flake? Lead to tape squeal? The answers depend substantially on the materials and manufacturing processes that have been used.

Whether the superiority of top-grade tape is perceptible and meaningful will depend partly on the user's tape machine and other audio components. A high-quality setup capable of revealing all the nuances of recorded sound will tend to benefit from superior tape and to show up the faults of inferior tape. An inexpensive system, with appreciable built-in noise, distortion, and treble loss of its own, will benefit to a lesser degree from superior tape.

The case for using better tape depends primarily upon the user and his standards. A perfectionist is unlikely to seek out bargain tape. He knows that high fidelity depends upon attention to many details in all parts of the recording and reproduction process. He will not jeopardize the ultimate result by neglecting any detail. If the user has a keen ear and good equipment, he will probably want the best in tape in order to avoid the degradation in performance that will result from using less than the best.

Each tape must be inspected for physical and magnetic defects.
OFFERGELD: The only recording of Virgil Thomson's *Four Saints in Three Acts* is back in print after a ten-year absence—one deplored in the interval by many a critic. I think it is unquestionably the most important recording of American opera to date, and before we discuss this reissue (RCA Victor LM 2756), I'd like to sketch in a little background.

*Four Saints* is probably the only American opera we can call legendary—I'm using the word here chiefly about its history, not its character. The work is unique to begin with for having made its way in the world on its own. With the exception of *The Mother of Us All*—Thomson's second opera—*Four Saints* is pretty generally admitted to be our most impressive achievement in the field, and it is one of the scandals of our musical life that the Establishment has never lifted a finger to support it. Now, to make music history without official leverage is difficult enough for a symphony or chamber piece, as Charles Ives so bitterly discovered. But for an opera to do so (particularly a ground-breaking piece that can only be described as organically atypical) is unheard of.

Thomson completed *Four Saints in Three Acts* in France in 1928. It was not to receive its world premiere for six years, but it promptly began a sort of subterranean social life of its own. The composer played it here and there on the piano and it began to make talk, particularly among commuters on the then-flourishing New York-Paris intellectual run. This loosely affiliated but articulate group included no opera board members, and we can roughly describe the first *Four Saints* fans as professionally able and creatively oriented young Americans who normally headed for France during their academic summer vacations. They also promoted and bought expensive modern art and frequently read about one another's doings in *Vanity Fair*, *The New Yorker*, and *transition*. Their determination at length enlisted a roster of private patrons, and in 1934 they gave *Four Saints* a memorable first production in Hartford, Connecticut. The opera astonished almost everyone by at once moving on to Broadway and Chicago for an unprecedented sixty performances in its first season.

Now I think it may be important today to remind ourselves (and possibly some of the people who produce and record operas) just how big a cultural splash it actually made. For more than a year *Four Saints* pulled headlines from coast to coast—and not only musical ones. It spilled over into the news pages and the columns. Taxi-drivers who wouldn't have been caught dead in an opera house were quoting "Pigeons on the grass, alas," from Gertrude Stein's mystifying libretto.

On another level, you'll recall, the avant-garde musical community had just discovered the shock value of dissonance and atonality. It now took due note of a cheeky young composer who was unimpressed by all that—one who wove waltzes, tangos, chorales, and other unlikely but melodious devices into a serious stage score. Besides communicating itself beautifully to the ticket buyers, this music somehow combined real innocence of heart with an intellectual sophistication that couldn't be shrugged off. It managed to be both forthright and subtle—as formidable in its way, and as American too, as the style of *Huckleberry Finn*.

Even more important, I think, was the fact that Thomson had demonstrated a way of circumventing the chronic official lethargy about American opera. He did this by creating a successful new working genre—serious opera on Broadway. And I think it can be demonstrated that this fact soon had its effect on such composers (and their producers) as Gershwin (whose *Porgy and Bess* came to Broadway a year after *Four Saints*), Weill, Blitzstein, Bernstein, and Menotti.

Be that as it may, and despite its proved effectiveness in performance, *Four Saints* was not recorded until 1947, when RCA Victor issued an abridged version conducted by the composer. This version, which contains approximately half the score and is performed by substantially the original cast, constitutes the present reissue. Each of us here has now heard it, and I'll begin by asking Bill Flanagan what he thinks of the sound.

FLANAGAN: Given its vintage—1947—I think we're lucky it sounds as good as it does.

OFFERGELD: I am even more impressed today by Thomson's concept of the sound—the fresh orchestral timbre, the un-hackneyed use of chimes, castanets, and especially the accordion. It also still astonishes me that anybody back in the Roaring Twenties thought that such a subject—not the drama but the state of being a saint—would make an opera at all. But I think this recording proves they were right. It worked then and it still does.

FLANAGAN: It does come off as an opera, but when you see it on the stage, it seems more a kind of ritual. The whole operatic continuity as such is invented out of the music, almost in spite of the words.

O'HARA: I think that the particular quality of its being operatic and then not operatic has been very influential in relation to, say, John Cage, and his attitude toward music, and then also to the "happenings" we have around today—nontheatrical events that are nevertheless theatrical simply because they are staged.

OFFERGELD: It's remarkable how Thomson takes quite commonplace musical materials and makes them metaphors for extraordinarily solemn happenings. For example, that big oom-pah-pah waltz that launches the opera and later turns up as the Communion Hymn of all the saints—"When this you see remember me." His use of it dislocates the tune entirely from the nineteenth-century handstands where it be-
gan. And his bit about “Leave later gaily, the troubador plays his guitar” is a fandango. It’s tremendously amusing, seemingly coming out of nowhere.

FLANAGAN: The strange thing about it, of course, is that you go to Four Saints expecting to laugh your head off, and yet the cumulative effect is really quite moving. The “Pigeons on the grass” episode I remember particularly: in spite of those words, it’s very austere, the solemn moment of the thing. And I’ve never quite been able to figure out why.

O’HARA: I think it’s probably the handling of the prosody. The setting of this piece, along with The Mother of Us All, is probably the most important thing that has happened in American prosody. For poetry, it’s as important as the work of William Carlos Williams and Ezra Pound. For one thing, I think Thomson is largely responsible for whatever vogue Gertrude Stein has in America, right now, for reading. Her Three Lives I realize is a very great work, but most people read it because it emulates Flaubert. The more difficult Stein works, the reading of them, has been tutored by Thomson in his operatic settings—as to how to read them, what they actually mean, and how to say them. He brought a kind of Americanization of diction to be very apparent. After that you didn’t have to think of Swinburne any more. The minute you heard Four Saints in Three Acts you thought, “Thank God, I don’t have to do that any more.” If you are a poet, it’s very important to you, and I feel it’s largely responsible for a great many developments in American poetry. In fact, the two Thomson operas are as important to the prosody of American diction as Pelléas and Mélisande is to modern French diction and as Lulu and Wozzeck are to German.

FLANAGAN: Exactly, and it’s strange that Thomson is not ordinarily thought of as an innovative composer. I’ve always thought that nobody has ever really picked up the implications of what he’s done.

OFFERGELD: Some critics tend to wrap him up with Satie and the Six—especially with Poulenc.

O’HARA: I think maybe Thomson is closer to Satie than he is to Poulenc.

FLANAGAN: This Satie comparison is always being made, and actually I don’t see anything but the barest of similarities in the music itself. The similarity is in the thought that lies behind it. People are always saying that Thomson sounds like Satie, and he never really sounds like Satie at all.

O’HARA: I won’t disagree about that, but it’s true that what each of them does is clear and literal—simple in the best sense. And as for Poulenc, I think he is mainly at his best when he is most melodramatic or sentimental, whereas Thomson is never either. Nothing could be less sentimental than his treatment of Four Saints. I think the point of the text and of the whole work is that it is a presented facts—saints’ lives are facts, something that is all closed off. You’re not talking about a developing thing like Napoleon at Water-
O'HARA: With regard to Stein, I don't think it's been pointed out that it's also unusual that a great writer could do an opera libretto.

O'HERGELD: It's as unusual as finding a composer to set it without making a single change in it.

FLANAGAN: In *Four Saints* Thomson set stage directions and all—practically the page numbers.

O'HARA: Except that in relation to how the lines go, once

Bérard's portrait of Gertrude Stein pursues his Roman allusions.
FLANAGAN: Schoenberg couldn't have done it. Just by nature he couldn't have.

O'HARA: That's the most remarkable thing. I think, was just taking the thing and setting all the words. It's a very contemporary American idea. It's really almost like pop art. Someone gives you a text and you set every single word that's on the page. Therefore you don't have any more acts, scenes, or anything, so you have to make them up. Now that's something that no European composer thought of until—well, possibly after the Dadaists began to think that way. But even then not in the same way, not in the literal sense of it. And it is this very peculiar literalness that sets Thompson apart. It reminds me, once I heard him talk at Harvard. He gave a lecture to a poetry class that I attended and he was talking about Handel. He said that he thought Handel was very corny. But he shows it looked that way at the real Statue of Liberty because it's the Statue of Liberty and that's what is so thrilling. You never looked that way at the real Statue of Liberty because it's corny. But he shows it to you musically and it's terrific.

FLANAGAN: I think there's more than a tinge of romanticism in Four Saints—is this literal sense of locality. It has a real sense in the music of where you are and what's happening, and the same thing occurs at the end of The Mother of Us All when you see the flag and the statue is revealed behind the flag. You really feel as if you're looking at the Statue of Liberty and that's what is so thrilling. You never looked that way at the real Statue of Liberty because it's corny. But he shows it to you musically and it's terrific.

O'HARA: What I am most anxious to see is a new production of The Mother of Us All. The Mother of Us All—the thing you don't find in Four Saints. The end of The Mother of Us All is really I think about Gertrude Stein herself in a way. It gets to be a feeling about her, and it gets to be really quite subjective and quite moving—even breathtaking. I never heard it, as a matter of fact, until I caught the performance in Buffalo a year or so ago, and it was the first time I thought that Thompson had sort of... well, that he was not standing aside, that he had somehow got involved in his own piece a little bit, in the emotions of it.

O'HARA: I agree. At the end you feel about Susan B. Anthony practically the way you feel about Tosca. You love her. Which brings up another question. Do you think that the Thompson works are grand opera?

FLANAGAN: I think they are actually closer to it than anything else we have. It seems to me they're closer to it than something like Vanities, say, which is supposed to be a grand opera.

OFFERGELD: That's what I was thinking of when I made the remark that they are operatic—that they work as opera. Now they're not narrative in the usual sense at all. The events are all verbal, melodic, orchestral. Yet the scenes, the visions, are all very real.

FLANAGAN: And very, very ritualistic.

O'HARA: I think they simply skip over a lot of nineteenth-century grand opera procedure. In fact they practically go back to Monteverdi. It was only in the nineteenth century that realistic drama took over opera, and Thompson has deliberately skipped over that phase. In effect he says: you are not going to be interested in this opera because of the situation, or because the heroine is being raped, or anything like that. You're going to be interested because of the way the set it, and what the music sounds like, and the nature of what we're talking about, or you're not going to be interested at all. It's more or less the way you have to be interested in the Coronation of Poppea—in the whole event.

FLANAGAN: That's it, because it's far closer to that than to anything else.

OFFERGELD: That's it also the way you're interested in the English masques, or the Rameau opera-ballets. This may be one of the reasons that Four Saints has had no direct imitators. It takes a prodigious lot of nerve to do that today. You don't see too many people trying it.

O'HARA: Most of them are looking for the kind of thing you find, for instance, in Lee Hoiby's recent opera. You get an enormous realism there, a beautiful play. And that of course becomes an anchor, but whether it's the right anchor for opera is another question.

OFFERGELD: The absence of realism in the Thompson operas is one of the things that makes them dateless. Today certain other works from roughly the same period are showing their topicality only too plainly, but not Four Saints. In fact, I can't think of anything that would lend itself better to contemporary repertory opera.

O'HARA: I think the City Center could mount it.

FLANAGAN: It's the mystery of my life why neither of Thompson's operas is done there. Nobody can figure it out, and apparently nobody dares ask.

O'HARA: What I am most anxious to see is a new production of The Mother of Us All. And of course a new opera, if Thompson would write it. New operas, I should say. OFFERGELD: I'm happy to be able to report that Thompson is considering just that. In fact, I believe he has more than one possibility in mind. But I know that if I were a composer of operas, I'd be more inclined to write a new one if the ones I had already written were being performed. Until and enroute to that happy day, this Victor reissue is something we can only be grateful for.
INSTALLATION OF THE MONTH

STEREO: SIMPLY SHELVED

One of the special but occasionally overlooked virtues of component high fidelity is illustrated by John S. Martin's installation, shown above. Mr. Martin, who lives in St. Louis, was confronted by the problem of fitting a set of hi-fi components into his small bachelor apartment. He solved it by installing the system with a minimum of gadgets and cabinetwork. The main "equipment cabinet" is simply a walnut bookcase mounted on a chest of drawers. The amplifying components consist of a pair of Marantz 9A power amplifiers (seen on the topmost shelf) and a Marantz 7C stereo preamplifier. On a shelf between the preamplifier and the power amplifiers is a Scott 350B stereo FM tuner with a special front panel designed to match the face plates of the Marantz equipment. Immediately below the preamplifier is a Thorens TD-124 turntable with an ADC-Pritchard ADC-85 pickup system. The tape recorder is a Concertone Series 90, Model 93-4. A pair of Neumann U-67 variable-pattern capacitor microphones are used for live recording.

Mr. Martin reports: "My speaker systems are the result of considerable experimentation, most of it wrong. I spent about a year remodeling the cabinets and reworking the crossovers. I chose JBL C-38 cabinets for their neat appearance and compact size. To make them even more rigid, I lined the interior surfaces with ¾-inch plywood panels. These were then screwed down and glued with epoxy. The walls of the cabinet are now 1½ inches thick. I took out the original front panels and then made new baffle boards from two thicknesses of ¾-inch plywood. I cut these out for my three Stephens speakers (a 120W woofer, an 80FR mid-range, and a 5KT tweeter) and caulked and sealed the cabinet air tight. I achieved, in effect, a very small (about 3 cubic feet) infinite-baffle enclosure—or a rather large acoustic-suspension enclosure, depending on how you look at it. In any case, I'm very satisfied with the sound I am getting."
A FORCEFUL NEW WORK BY BENJAMIN BRITTEN

Endless fantasy and invention are displayed in the Symphony for Cello and Orchestra

Benjamin Britten's recent Symphony for Cello and Orchestra is far and away his strongest nonvocal instrumental work in years—if not his strongest ever. In London's new recording of the work by Russian cellist Mstislav Rostropovich (for whom the piece was written “as a tribute”) and the English Chamber Orchestra conducted by the composer, it has been brought to life with a clarity, a precision, and a kind of hard-boiled no-nonsense forcefulness that grips the listener's attention from first note to last.

The piece is remarkable on many counts. It is enigmatic and complicated, yet straightforward and razor-edged in its outlines. Although it is a “symphony in movements”—the title is not just chic, perverse nomenclature—it also functions as a display piece for the solo cello as effectively as any modern concerto for the instrument. But most remarkable and admirable of all is the endless fantasy and invention of the work's content—it broods, it sings, it goes momentarily cryptic or sinister. And, along with a curious toughness and hardness, it has at times a certain dour grandeur. Yet, each of the disparate expressive elements is woven into a musical continuity so inevitable, so sure in its musico-theatrical footing, that even a picky fellow composer would be hard-pressed to question a note of it, alter a rhythm, or wish for the smallest change in the whole.

As is so often the case with Britten's work, if you listen to this symphony before reading its annotative description you will be astonished to discover that it is scored for so small an orchestra. Is there another composer living today who can get such an extraordinary variety of effects out of an instrumental combination as limited (for example) as the small orchestral forces that accompany Britten's opera The Turn of the Screw? I think not. The chamber orchestra in the present recording plays superbly under the composer-conductor's guidance. Britten's force and skill as a conductor of his own works grow in giant steps with
each new recording. Moreover, Rostropovich's cello playing here is strong, clean, and expressive. Although the music does seem to make certain concessions to the solo performer's Russian orientation, his reading of it is nonetheless stylistically remarkable in a work that remains Britten and British in essence.

The Haydn Concerto in C for Cello and Orchestra completes the release, and is a "new" work of sorts as well: its parts were discovered only in 1961, and the jacket notes make an excellent case for its authenticity. It is an exquisite lyric outpouring, even if its structural ambitions are, if not actually primitive, at the very least surprisingly simplistic. Still, exquisite lyric outpourings are not to be come upon with any great frequency even in rediscovered music by the greatest masters, and from this point of view alone, the work more than amply rewards the listener for the slight demands it makes on him.

The recorded sound is of the quality we have come to expect from London: clear, rich, and well-balanced. The stereo version effectively differentiates the concerto aspect of the Britten symphony from the necessarily more pronounced dialogue of the Haydn concerto.

William Flanagan

**BRITTEN:** Symphony for Cello and Orchestra. HAYDN: Concerto in C for Cello and Orchestra (with cadenzas by Benjamin Britten). Mstislav Rostropovich (cello); English Chamber Orchestra, Benjamin Britten cond. LONDON CS 6119 $5.98, CM 9119 $1.98.

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**THE ESTERHAZY ORCHESTRA IN TWO HAYDN SYMPHONIES**

**Conductor David Blum continues his exploration of less-familiar Haydn**

Partly through the efforts of such musicologists as H. C. Robbins Landon and the growing interest of today's conductors, performances and recordings of Haydn symphonies are no longer being restricted to just the last dozen or so of the composer's tremendous output in that form. The Library of Recorded Masterpieces has made impressive inroads with their (as of this date) sixteen discs of early and middle-period symphonies, and other companies are now following suit. Corrected scores are being used, and much effort is being made to interpret the music in the style of the period.

David Blum and his twenty-five-member Esterhazy Orchestra, an excellent New York chamber group, have previously recorded Symphonies Nos. 52 and 60 for Vanguard. This was an auspicious start, and the ensemble's just-issued second disc, containing Nos. 39 and 73, is even more successful. The choice of symphonies—they are not overly familiar ones—is good, for although these two have been recorded previously, new readings of both have definitely been needed for some time. Symphony No. 39, the earlier of the pair, dates from 1770 or earlier, and is
a most anxious-sounding work in G Minor, full of storm and stress—clearly a cousin of Mozart's Symphony No. 25 in the same key. But in complete contrast is the cheerful, even witty No. 73 (c. 1781), subtitled "La Chasse" because of its hunting-call finale, and originally used as the prelude to the third act of Haydn's 1780 opera La Fedeli premiata.

Conductor Blum very definitely has a way with this music. He has a highly developed taste for lyricism, but his sense of drama, as can be observed in the exceptionally tight, almost whip-like last movement of No. 39, is just as acute. In fact, for musical excitement, this finale alone is worth the price of the record. The orchestra responds superbly with playing that is precise and warm in tone. I wish, however, that a harpsichord continuo had been used in No. 73—as Haydn surely intended in all of his symphonies—for its inclusion in No. 39 is very effective. Vanguard's recording is more detailed than it was in Blum's previous set of symphonies, making the reproduction as good as one can hear today.

Igor Kipnis

© HAYDN: Symphony No. 39, in G Minor; Symphony No. 73, in D Major ("La Chasse"). Esterhazy Orchestra, David Blum cond. Vanguard VSD 71123 $5.95, VRS 1123 $1.98.

WOLF'S ITALIAN SONGBOOK SPLENDIDLY INTERPRETED

Erna Berger and Hermann Prey bring vocal distinction to a demanding assignment

Of the considerable number of songs by Austrian composer Hugo Wolf (1860-1903), those in his Italienisches Liederbuch perhaps offer the most remarkable revelations of his peculiar genius. Wolf completed these forty-six settings of poems by Paul Heyse toward the end of his creative span, in two bursts of concentrated activity, but more than four years apart.

The poems themselves are miniatures, and it is probable that no other composer would have selected them for musical treatment. But they served Wolf's creative impulses admirably, and he responded to their stimulation with settings that are extraordinarily apt, with an almost obsessive respect for poetic form and content and without either vocal flourishes or musical stresses not called for by the text. There is a deceptive simplicity about these songs, and their richness of invention is not revealed to the casual listener. There are no obvious devices and no clichés; the piano parts are seldom mere accompaniments, and even when they deceptively seem to be (as in "O war Dein Haus durchsichtig wie ein Glas" or "Ein Ständchen Euch zu bringen") they nonetheless convey a special meaning. The mood of the songs is contemplative, the tone often almost conversational, seldom rising to any passionate heights. As critic Ernest Newman has observed, "Wolf prefers the intensity of quietude to the intensity of vehemence."

The exceptionally fine performances of these songs by Erna Berger and Hermann Prey (the recordings were first issued several years ago by German Electrola) have now been made available in this country by Vox. Both singers bring to their demanding assignment not only a distinguished vocalism but also an intelligent musicianship.

Erna Berger's achievement is truly astonishing, considering that this is a late stage of her career (reference books give 1900 as the year of her birth). She sings with the remembered freshness and limpidity of tone, her diction is delightfully clear, and she has the range under complete control. The songs of lyric rapture and playful charm are more congenial to her vocal style than those calling for contemptuous and ironical inflections, but, without resorting to overdramatization, she never fails to make the song's point through her interpretation.

Prey, an innately dramatic interpreter, colors his singing with more emotion, but adapts his fervent style admirably to Wolf's subtleties. Carefully observing the dynamic

MARCH 1965 71
ALMEDA RIDDLE: FOLK ARTIST OF THE OZARKS
An exemplar of a living musical heritage is heard in an important new release

We already have, on such labels as Folkways and Folk-Legacy, a number of excellent illustrations of the British-American ballad tradition as it has developed in the Southern mountains for more than three centuries. But Vanguard's new release, "Almeda Riddle: Songs and Ballads of the Ozarks," must now be counted among the very best of these documentaries, and any discussion henceforth of the "high lonesome" tradition can refer profitably to this album.

Born sixty-six years ago in Cleburne County, Arkansas, Mrs. Riddle has lived there and in adjoining White County most of her life. She learned her songs and her approach to balladry from a singing family and a singing community. As John Quincy Wolf points out in his excellent notes: "The entire community was alive with folk song but none of it was written down and all of it was plastic."

Mrs. Riddle's voice is clear, slightly tart, and penetrating. True to her tradition, she never overstates an emotion nor permits a narrative to lapse into the cadences of melodrama. But her knowledge of this musical heritage is so complete and so assured that she creates a feeling of immediate, convincing reality while at the same time sustaining an almost eerie sense of continuity with the generations upon generations of Ozark ballad spinners who came before her.

Among her fascinating musical virtues is a remarkable control of the rhythmic substructure of her material. Throughout the album, Mrs. Riddle sings unaccompanied, but there is no trace of a lagging pulse or rhythmic stumbling of any kind. Also absorbing are her technical devices—the "feathering" of notes with yodel-like breaks and other ornamentations of the line, together with slight alterations of dynamics to heighten the narrative flow.

And above all, Mrs. Riddle has superior taste in the selection and shaping of her texts. Although respectful of tradition, Mrs. Riddle nonetheless keeps her repertoire, as annotator Wolf points out, in a fluid state. Rarely singing a song the same way twice, she continually renews her approach to a ballad. She has always sung basically for her own pleasure and that of her family. Accordingly, she is not bound to any concept of academic "purity." If a word doesn't make sense to her, for instance, she will change it—but always, of course, within the context of the heritage she has so thoroughly absorbed. She is, in short, a contributor to as well as an in-
terpreter of the folk process. She keeps the tradition alive and does not regard it as a book already closed by folk-song scholars.

Many of the songs are familiar to folk-record collectors: *Black Jack Davie*, *The House Carpenter*, *Lady Gay*, *The Two Lovers*, and *Frog Went A-Courting*. Others are *The Orphan Girl*, a sentimental but oddly touching portrait; the short, chilling *Babes in the Woods*: a Baptist hymn, *How Firm a Foundation*: and *Will the Weaver*, the briskly told story of an adulterous adventurer. Credit is due Ralph Rinzler, who supervised the album; the engineers; and Vanguard Records for its decision to issue a set whose sales are likely to be small but whose importance will surely be lasting.

*Almeda Riddle: Songs and Ballads of the Ozarks.*

Almeda Riddle (vocals). *Locks and Bolts: A Soldier of the Legion: Young Carlotta: The Two Lovers;* and nine others. VANGUARD VRS 9158 $1.98.

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**A MOST EXCELLENT ROMEO AND JULIET**

*Albert Finney and Claire Bloom star in a resolutely flesh-and-blood production*

"The Most Excellent and Lamentable Tragedy of Romeo and Juliet* (as Shakespeare himself titled it) is of course more than just a romantic play about two star-crossed lovers caught in a family feud. It is one of the most polished, superbly balanced dramas ever written, tightly constructed, fast-moving, and with a hero and a heroine made of flesh and blood, not attitudes.

The Caedmon Shakespeare Recording Society's new three-disc set gives us a full-strength performance by a perfect cast that realizes the play's earthy as well as its romantic and philosophical aspects. Albert Finney's Romeo is tender and lyrical in the great love scenes, but he is also a rough and resolute fellow when abroad in the world. Dame Edith Evans emphasizes the lewd, garrulous, gossipy qualities of the nurse, but without forgetting her loyalty as well. And Claire Bloom is sensitive to Juliet's practical side—she is a girl who wants to be sure that Romeo intends marriage. She makes of the heroine—young though she may be—a full-blown woman rather than a dreamy-voiced pseudo-adolescent, rising to heights of impassioned speech far beyond the range of any other Juliet I have heard or seen. The eloquent Hilton Edwards is superb as the obtuse Friar Lawrence, and the balance of the well-chosen cast is also tremendously effective in communicating to the listener a chilling sense of the extent to which the lovers are progressively cut off from the sympathy and understanding of those about them.

The vigor and animation of the whole production are so persuasive that when Mercutio presents his famous speech about Queen Mab—which in most performances sounds strangely out of place—it seems entirely right that he should do so, as if he is quite naturally improvising a fanciful joke for his friends rather than reciting a set piece like an interpolated aria in an opera.

Music, sound effects, and the use of stereo to create a sense of space and action have never been put to better purpose, bringing street scenes, ballroom scenes, and moments of complex interior action to such believable life that the hushed, tense encounters between the lovers become all the more moving and heartbreaking, embedded as they are in the harsh and incomprehending turmoil of life around them.

*Paul Kresh*

**SHAKESPEARE: Romeo and Juliet.** Claire Bloom, Albert Finney, Dame Edith Evans, Kenneth Haigh, Hilton Edwards, and cast. Howard Sackler, director. CAEDMON SHAKESPEARE RECORDING SOCIETY 228 three 12-inch discs stereo and mono $17.85.

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Bach: Cantata No. 57, "Selig ist der Mann": Cantata No. 140, "Wachet auf!"; Ursula Buckel (soprano); Jakob Stämpfli (bass); Chorus of the Conservatory of Sarrebruck. Herbert Schmolz director; Chamber Orchestra of the Sarre. Karl Ristenpart cond. NONESUCH H 71029 $2.50, H 1029* $2.50.

Performance: Excellent
Recording: Very good
Stereo Quality: Widespread

This recording contains two splendid cantatas of entirely different moods. The familiar Number 140, a more elaborate work than the other because of the use of the chorus, is an early Advent cantata extolling Christians to be alert for the second coming of Christ. Its music provides a lively contrast to the resigned feeling that pervades Cantata Number 57, whose text commemorates the martyrdom of St. Stephen and is a contemplation of death. Both works are exceptionally well done by Karl Ristenpart and his forces. "Wachet auf!" is taken quite quickly, a fact that may disconcert some listeners used to the Clarkehuog. part three, and the stereo version projects the various voicing of the organ with great realism. I.K.

RECORDING OF SPECIAL MERIT

BACH: Preludes and Fugues: in E-flat Major ("St. Anne," BWV 552); in G Major (BWV 572), in C Minor (BWV 546); in A Minor (BWV 533); Piernut Walcha (Grand Franz-Casper Schnitger Organ of St. Laurenskerk in Alkmaar, Holland). DEUTSCHE GRAMMOPHON ARCHIVE ARC 75207 $5.98, ARC 3207* $5.98.

Performance: Towering
Recording: Excellent
Stereo Quality: Well-projected

Continuing his rerecording of the Bach organ works for Archive, Helmut Walcha plays four more large-scale Preludes and Fugues on the excellent Dutch organ that is the hallmark of this second set. The blind performer's previous version of the "St. Anne" was part of a complete recording of the Claricehuog. part three, and the combining on this disc of the two sections that make up the work—the long Claricehuog. begins with the Prelude and concludes with the Fugue—will undoubtedly appeal to listeners who prefer to hear the work as a unit. Walcha's playing, as usual, is extraordinarily impressive, most especially in the familiar A Minor work, in which he gauged the elements for magnificent dramatic effect. Archive's recording leaves little to be desired, and the stereo version projects the various voicing of the organ with great realism. I.K.

Explanation of symbols:

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

Bach's complete flute sonatas are not well served here by Archive—this is one of DG's rare lapses from its usual high standard for this historical series. Though I can find no fault with the technical abilities of the players, the interpretations themselves are totally ungracious. Both the harpsichordist, a performer previously unknown to me, and Karl Ristenpart, a Hamburg-born flutist currently with the Bavarian Radio Symphony Orchestra, play these marvelous works with metronomic rigidity and little variety of expression. The gamba continuo is well done, but is unfortunately restricted to the three sonatas BWV 1033/4/5, instead of being used to support the fast movements in all the sonatas with harpsichord. The recording's balance is rather unrealistic—a close-up harpsichord and a slightly more distant flute—in the sonatas for the obbligato keyboard instrument, and the program notes, which learnedly discuss the fact that BWV 1020, 1031, and 1035 are apocryphal, suffer from long-winded vagaries and careless proofreading. I hope that Archive will redo this set some time in the future, preferably with flutist Hans-Martin Linde, a far more sensitive musician than the present player. I.K.

RECORDING OF SPECIAL MERIT

K. P. E. BACH: Concerto, in D Minor, for Flute, Strings, and Continuo; Concerto No. 3, in A Major, for Cello, Strings, and Continuo. Jean-Pierre Rampal (flute); Robert Bee (cello); Huguette Dreyfus (harpsichord); chamber orchestra. Pierre Boulez cond. Vox STPL 514 170* $4.98. PL 14 170* $4.98.

Performance: Brilliant
Recording: Good
Stereo Quality: Satisfactory

One does not usually expect to find one of the proponents of the avant-garde delving into the galant music of the mid-eighteenth century, yet here is Pierre Boulez, a "far-out" computer and authority on contemporary music, conducting two concertos by Karl Philipp Emanuel Bach. Furthermore, he does it with enormous flair and considerable awareness of the performing conventions of that time. If in the fast movements he concentrates perhaps more on brilliance of effect than on their true Affect, it might be put down to the nervous energy of our own time. At any rate, his is a remarkable feat of conducting and well worth hearing. As might be expected, Rampal proves the flute concerto, a fine, vital work, with enormous technical skill. The final Allegro dies molto is taken at a tremendous clip, more like a Presto di molto, and though it is obviously too fast (compare, for instance, Kurt Redel's more sober and natural treatment on Decca T 100922 100922). I defy anyone not to be bowled over by the playing. The cello concerto on the second side is first-rate as
music, too; it is surprising that this is its first recording (Raya Garbovsoua did the slow movement with piano accompaniment in the Forties for Victor). The Frenchman Robert Bex, whose name is unfamiliar to me and about whom there is no information on the jacket, performs the work beautifully and eloquently. Few cellists today are able to avoid romanticising such a piece as this and yet to maintain its very strong sentiment, Bex manages to do both, at the same time infusing the score with a remarkable firmness and vitality. In his own way, he plays the concerto with as much technical brilliance as does Rampal his piece. Vox's sound places the orchestra rather far back from the soloist, but the reproduction is otherwise quite satisfactory.

I. K.

Among the three low-price "Emperors," the Parliament disc wins hands down in my estimation, by virtue of highly dramatic and exciting performances by soloist and orchestra, and brilliant and spacious recorded sound.

D. H.

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I. K.
"What a stunning experience it is!"...said the American Record Guide when Eugene Ormandy and the Philadelphia Orchestra recorded Richard Strauss' Also Sprach Zarathustra. "In no live performance have I heard as much of what the composer wrote as I do in this recording," commented High Fidelity about Ormandy's Don Quixote. It is more than coincidence that Ormandy is "always at his best," as another critic put it, in the demanding works of Strauss. In his years with the Philadelphia Orchestra he has created such extraordinary rapport with his 105 virtuosos that they respond to his every interpretive wish. In his new Columbia album, Ormandy serves up a rare treat for Strauss aficionados: the orchestral suite from his most popular opera, Der Rosenkavalier, the mischievous tone poem, Till Eulenspiegel's Merry Pranks and Dance of the Seven Veils from Salome. When you have heard it you will understand why for many Ormandy's Strauss is the only Strauss. Eugene Ormandy and the Philadelphia Orchestra on Columbia Records.

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**RECORDING OF SPECIAL MERIT**

- **BRUCKNER: Symphony No. 8 in C Minor.** Berlin Philharmonic Orchestra, Eugen Jochum cond; *Deutsche Grammophon* SLPM 136918/9 two 12-inch discs $11.96, LPEM 19918/9 $11.96.

  **Performance:** Brilliant
  **Recording:** Impressive
  **Stereo Quality:** Excellent

  The grandeur of Anton Bruckner's Eighth Symphony have not lacked for impressive realization on records. It was Eugen Jochum who in 1949 introduced the score to discs, and most American record buyers heard it for the first time when the Jochum reading was released by Decca. Then came the performance of the late Eduard van Beinum and the Amsterdam Concertgebouw during the middle 1950's—an impressive recording achievement for its day and still available on the Epic label. Herbert von Karajan and the Berlin Philharmonic offered their reading on an Angel mono set in 1958, but it took the 1961 stereo release to reveal the full splendors of Karajan's accomplishment. For sheer drama, however, and despite coarse sound, the recording by Evgeny Mravinsky and the Leningrad Philharmonic on the Soviet MK label (mono only) is in a class by itself. The Vox mono set with Horneinstein and the Westminster stereo/mono album with Knappertsbusch both offer conscientious and deeply felt interpretations, but neither is as well realized either in sound or performance as those of Karajan or Mravinsky, not to speak of the new Jochum reading under consideration here.

  In general, this new interpretation by Jochum strikes me as a highly successful combination of the dramatic approach of Mravinsky with the polish and proportion of Karajan—the emphasis upon the latter. Jochum's tempos are brisk in the fast movements and impressively sustained throughout the great Adagio. In short, this is a Bruckner performance of the very highest distinction, not only on Jochum's part, but on the part of the Berlin Philharmonic. The greatest asset of all here is the recorded sound, imposing in body and wonderfully rich in detail, and thanks to DGG's glass-smooth pressings, the sound comes through with a minimum of extraneous noise—something that could not be said for Angel's pressings of the Karajan stereo discs.

  All told, this is about as fine a realization of this symphony as we are likely to get on discs, and to specialist and non-specialist alike. I recommend the set warmly.

  D. H.

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**RECORDING OF SPECIAL MERIT**

- **DVORAK: String Quartets: No. 2, in D Minor, Op. 34; No. 6, in F Major, Op. 96 ("American").** Janáček Quartet; London CS 6394 $5.98, CM 9394 $4.98.

  **Performance:** Zestful
  **Recording:** Excellent
  **Stereo Quality:** Good

  There are a half-dozen currently available recordings (three in stereo) of Dvořák's popular "American" Quartet, but this London disc gives us the only recorded version of the lovely Op. 34 in D Minor outside of Vox's complete set (SVBX 549/50, VBX 549/50).
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MARCH 1965
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49/50) by the Kohon String Quartet of New York University.

With Dvořák, as with Franz Schubert, melody flowed as naturally as spring water, and, if there is a lesser-known quartet, such as the D Minor on this disc and the wonderful Op. 51 in E-flat, are remarkably rich in this respect. They do make obeisance to formal considerations, but without losing their essential spontaneity of utterance (I feel Op. 61 in C is something of a failure in this regard).

The players of the Janáček Quartet, native Czechs all, play the D Minor and F Major quartets with captivating zest in the dance-like movements (notably the polka-like second movement of the D Minor) and with quiet intensity in the slow movements. The recorded sound is first-rate throughout. For those becoming acquainted with the string-quartet literature for the first time, as well as for connoisseurs of chamber music, I recommend this disc unreservedly. D. H.

@ DVOŘÁK: Symphony No. 9, in E Minor, Op. 95 ("From the New World"). Berlin Philharmonic Orchestra, Herbert von Karajan cond. Deutsche Grammophon SLPM 138922 $5.98, LPM 18922 $5.98.

Performance: Even-tempered
Recording: First-rate
Stereo Quality: Good

Herr von Karajan gives us no high-powered romantic reading of Dvořák's ever-popular "New World" Symphony. Judged solely on the basis of its restrained rhetoric and limited range of dynamics, the style of this interpretation would do just as well for late Mozart or early Beethoven. This performance is notable also for clarity of inner detail and justness of instrumental balance, especially in the woodwind department. Still, this does not add up to a performance that communicates in any significant degree the inherent passion underlying Dvořák's score. To my way of thinking, the cool treatment just will not do here, even with the beauties of DGG's recording. There are literally dozens of other recordings from which to choose for connoisseurs of chamber music, for formal considerations, but without losing their essential spontaneity of utterance (I feel Op. 61 in C is something of a failure in this regard).

The players of the Janáček Quartet, native Czechs all, play the D Minor and F Major quartets with captivating zest in the dance-like movements (notably the polka-like second movement of the D Minor) and with quiet intensity in the slow movements. The recorded sound is first-rate throughout. For those becoming acquainted with the string-quartet literature for the first time, as well as for connoisseurs of chamber music, I recommend this disc unreservedly. D. H.

@ @ GILBERT AND SULLIVAN: The Yeoman of the Guard. Philip Potter (tenor), Colonel Fairfax, Donald Adams (bass). Sergeant Meryll, John Reed (baritone), Jack Point; Kenneth Sansford (baritone), Wilfred Shadbolt; Elizabeth Harwood (soprano), Elsie Maynard, Ann Hood (soprano), Phoebe; Gillian Knight (contralto), Dame Carruthers; others. D'Oyly Carte Opera Company, Royal Philharmonic Orchestra, Sir Malcolm Sargent cond. London OSA 1258 two 12-inch discs $11.96, A 4258 $9.96.

Performance: Top-notch
Recording: Excellent
Stereo Quality: Suitable

The Yeoman of the Guard represents a departure from the characteristic Gilbert-and-Sullivan formula. Though Gilbert's lyrics sparkle with their usual wit and archness, the company now has a romantic pair with vocal gifts above the D'Oyly Carte routine, and the remainder of the cast is solidly competent. The orchestra delivers Sullivan's music with a high tonal sheen and a fine sense of nuance under Sir Malcolm Sargent's direction. Balances are exemplary, and Sargent does a remarkable job in adapting his orchestral sound to the varying vocal endowments of his cast. G. J.

@ @ GLINKA: Russian and Ludmila: Overture; Valse Fantastie; Jota Aragonesa. MAURICIO GOSSORSKY: A Night on Bald Mountain (arr. Rimsky-Korsakov); Khovanchina: Prelude; Persian Dances (arr. Rimsky-Korsakov). Suisse Romande Orchestra, Ernest Ansermet cond. London CS 6405 $5.98, CM 9405 $4.98.

Performance: Stylish
Recording: Very fine
Stereo Quality: Excellent

The Glinka side is the choice part of this disc. The often-abused Russian Overture is far from not given the rat-race treatment, and the delicious Valse Fantastie emerges at the gem it is—the precursor of Tchaikovsky's beautiful salon Waltzes. Though Ansermet fails to bring to that pioneer of Hispanic studies for orchestra, the Jota Aragonesa, the overpowering brio that characterized Tchaikovsky's performance, he does give the piece the same fetching lift and sense of color that has marked his readings of others in this vein by Rimsky-Korsakov, Chabrier, Debussy, and Ravel.

Moussorgsky's monster rally comes off as a study in color rather than mere orchestral razzle-dazzle, and the exquisite dance piece from Khovanchina gets its finest recorded performance yet. The rather tiresome Rimsky-style dances from that opera are treated considerately, and I only regret that they were not supplemented by the sonorous and magnificent eur'arie music for Act Four—the only currently available recording of which is Karajan's Angel discs of operatic intermezzi ($35793).

RECORDING OF SPECIAL MERIT

@ D. H. HAYDN: Symphony No. 16 in B-flat Major; Symphony No. 19 in D Major; Symphony No. 52 in C Minor. Vienna State Opera Orchestra. Max Goberman cond. Library of Recorded Masterpieces HIS 16 $8.50 (subscription, mono or stereo), $10 (nonsubscription, mono or stereo). (Available from Library of Recorded Masterpieces 150 West 82nd Street, New York, 10024, N. Y.)

Performance: First-class
Recording: Splendid
Stereo Quality: Excellent

Volume Sixteen in the Library of Recorded Masterpieces series of Haydn symphonies includes two early works (of which Number 19, as H. C. Robbins Landon points out in his excellent program annotations, is chronologically closer to the first symphony Haydn wrote) and a middle-period symphony. Number 52 is by far the most adventurous work (which is not to belittle its entertaining disc-mates); it is one of Haydn's Storm and Drang compositions, restless and full of violent contrasts. David Blum recorded it with the Escherzyh Orchestra (Continued on page 86)
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for Vanguard (2141/1105) recently, and though his performance was an impressive one, this one by the late Max Goberman is even better. One detail alone should be enough to indicate the difference: Goberman uses the prescribed high C horn (Blum's sounds an octave lower), which, particularly in the last movement, creates a hair-raising effect. Once again, I have nothing but admiration for LRM's splendid project. The recording is first-rate in both versions, though the first side of the stereo pressing (I checked two copies) is afflicted with a poor surface.

Haydn: Symphonies: No. 39, in G Minor; No. 73, in D Major ("La Chasse") (see Best of Month, page 70)

Humperdinck: Hansel and Gretel. Walter Berry (baritone), the father; Grace Hoffman (contralto), the mother; Irmgard Seefried (soprano), Hansel; Anneliese Rothenberger (soprano), Gretel; Elisabeth Höngen (contralto), the witch; Liselotte Maikl (soprano), Sandman and Dew Fairy; Vienna Boys' Choir and Vienna Philharmonic Orchestra. André Cluytens cond. ANGEL SBL 3648 two 12-inch discs $11.96, BL 3648 59.96.

Performance: First-rate
Recording: Good
Stereo Quality: Underrated

It is a great pity that Hansel and Gretel seems to have fallen into disfavor with opera producers. I am not entirely sure that audiences share their judgment. Certainly, if one believes in such a thing as an opera for children, this is it—nothing else can even remotely approach it. Granted, children are not what they used to be, but let us not condemn this opera for lack of sophistication too quickly. It tackles, after all, such timely issues as failure of communication between parents and children; it touches, like so much in our current dramatic literature, on such phenomena as alcoholism and cannibalism, and even has elements of science fiction (the witch's defiance of the laws of gravity). Viewed in this light, there may still be hope for Hansel and Gretel in our modern age.

Musically, the score is a near-miracle—a distillation of Wagnerian matter and methods accomplished by superimposing melodies of folk-like simplicity on a complex symphonic foundation. This is brought about so cunningly that the composer's enormous technical facility hardly ever interferes with the seemingly airless flow of tunefulness. Humperdinck cannot resist displaying his contrapuntal knack in the overture, a piece of exaggerated earnestness, but once the curtain is up there is no slackening of melodic inspiration, no flaw in proportion, no uncertainty of purpose.

This opera must be performed without condescension, and this is what happens here under Cluytens' loving and leisurely pacing. The voices of Rothenberger and Seefried are attractively matched—the gleaming tones of the former are, as always, a delight, and the mannerisms of Miss Seefried somehow help in creating a Hansel of distinct charm and personality. Walter Berry endows the part of the father with an appropriate earthiness and sympathetic simplicity, the mother, Grace Hoffman, is adequate, and Liselotte Maikl is very attractive in her dual role. The witch,
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Performance: First-rate Recording: General: Excellent Stereo Quality: Adequate

Strangely, neither of these symphonies, dating from 1778 and 1780, has received much attention lately from record companies. This should in no way reflect on the merit of either of the works, which in fact are as fine as their more frequently recorded neighbors, such as Numbers 29 and 33. Otto Klemperer, in one of his last recordings with the Philharmonia Orchestra before it reorganized as the New Philharmonia Orchestra—the same ensemble but without the directorship of EMG's Walter Legge—provides a pair of performances that to my mind are as good as any he has given us. His tempos in the fast movements are slower than other conductors, but they are neither too leisurely nor are they lacking in sparkle. Perhaps most impressive, along with the splendidly precise playing of the orchestra, is the amount of attention given to balance, especially in the winds, which are heard with a clarity seldom found in Mozart performances. Angel's recording is very transparent and full-bodied in the bass, though the high end tends to sound a bit thin. I. K.

Performance: Dazzling Recording: Excellent

Two young virtuosos—pianist Lorin Hollander and violinist Erick Friedman, a Herbert von Karajan discovery—play in perfect harmony with Erich Leinsdorf and the Boston Symphony Orchestra as part of the Prokofiev recording project this conductor has undertaken for RCA Victor. Young Friedman is particularly impressive, having been permitted by Leinsdorf's rather slowish tempo to turn on a singing tone of quite radiant beauty to alternate with some of the more flashingly accurate virtuosity you are likely to hear these days.

HOLLANDER, for his part, whips through the fifth Piano Concerto like a junior Olympian. One feels here, as with Friedman, that Leinsdorf has selected these young performers almost as much for their adaptability to his vision of Prokofiev as for their own talents. Still, a Leinsdorf view—a quite special one, at that—of Prokofiev begins to emerge as the series expands. And taken simply as musical performance, this disc—superbly recorded, I might add—is one of the best yet.

Performance: Good Rhapsody Recording: Rhapsody better Stereo Quality: Satisfactory

The combination here is a sure winner, and has called for some canny disc-cutting from Columbia in order to get the third concerto's first movement on a single side. This is the only stereo version of this coupling, and it is duplicated in mono only on Westminster, with Lewenthal and Abravanel. The 'Paganini' rhapsody comes off the better both as performance and recording. Rubinstein-Reiner, Entremont-Ormandy, and Katchen-Boul represent stiff stereo competition, but with its fierce thrust and power, the Grafman-Bernstein combination holds its own excellently in this company. Solo piano presence and orchestra-soloist balance are excellent all the way through.

It is hard to say whether the disappointing effect of the Rachmaninoff concerto performance should be laid to balance problems (Continued on page 92)
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The precise fraction is a matter of opinion, but the fact of the matter is not. In addition to the many thousands of hi-fi systems with TF-3’s, quite a few are using speaker systems that are simply not as good. Some were chosen because their owners expected more bass response, or smoother bass response. Those who bought closed-box systems, for example, get no more bass than the TF-3 provides. Moreover, a closed-box system has nearly 4 times as much distortion at 40 cycles as a TF-3. And the TF-3 is efficient. It would have effectively doubled the power of amplifiers being used compared with some less efficient types of loudspeakers. Or, you could have used a smaller amplifier, obtained the same sound level, and pocketed about $50. While we’re saving money—a pair of TF-3’s are priced as much as $60 less than a pair of alternatives that do not work as well. Take this, and the amplifier savings and you have about $100. Or, would have had about $100. And, you would have had a better looking system. The selected panels used to make a TF-3 are veneered with choice real walnut, carefully hand-finished. (Some people don’t use real walnut . . . you should have asked.) If you had bought the unfinished TF-3 at $94.25, you could even have painted it to match the drapes. If you already own TF-3’s, you’re lucky. On second thought, you’re probably just smart.
To call this music lightweight—both the Respighi-Rossini and the Britten—is at least to avoid a harsher term. Respighi’s ‘arrangements’—unlike, for example, Stravinsky’s—have an awful way of making meretricious what is already so. So it is with the Rossiniana. And I’m not sure what the normally tasteful Benjamin Britten thought he was up to with his Soirées Musicales—even with the liner-note explanation taken into consideration—but these vulgar vagaries are, if a little more fun than the Respighi, not much easier to take.

Why were these sides—either of them—recorded, one wonders? Well, conductor Zeller’s background is the orchestra pit at the ballet, and there is a relationship between this manner of music and certain music for the dance. He conducts it like a ballet conductor—you’ll be belted solidly by every downbeat—but this is probably the best way possible.

**W. F.**

**RUBINSTEIN: The Demon.** A. Ivanov (baritone), The Demon, T. Tsalakhidze (soprano), Princess Tamara; S. Krasovsky (bass), Prince Gudal; J. Koziólska (tenor), Prince Sinodal; M. Kuznetsova (contralto), Nurse, V. Gavryushov (bass), Old Servant. Chorus and Orchestra of the Bolshoi Theatre, Alexander Melik-Pashaiev cond. **Ultraphone ULP 114/5/6/7 four 12-inch discs $19.94.**

**Performance:** Powerful and convincing **Recording:** Dated sound

Chronicles and legends of his pianistic feats have accorded Anton Gregoryevich Rubinstein (1829-1894) an immortal position among the keyboard giants, but his accomplishments as a composer are hardly remembered. Yet his list of compositions is enormous, ranging through the forms from opera to string quartet, from intimate piano pieces to grandiose symphonies. Rubinstein wrote more than twenty operas, some of which enjoyed a great deal of popularity for a while before fading from the repertoire. It is something of a surprise, therefore, to come face to face now with a virtually uncut recording of The Demon in an impressive performance by the Bolshoi Theatre. While it fails to establish Rubinstein as an underrated operatic genius, it offers impressive evidence of his skill and inspiration.

The Demon dates from the period (1875) that saw Moussorgsky’s Boris Godunov, but the two have nothing whatever in common. As a composer, Rubinstein seems to have lived outside the Russian mainstream, his cosmopolitan style unaffected by contemporary nationalistic currents. There are passages in his work of decidedly Russian melody and coloration, but he was no romantic nationalist and, on the other hand, such precociously dramatic works as Der Erlkönig and Gretchen am Spinnrade. Though they were published after Schubert’s death as “sonatinas,” Schubert himself titled these works sonatas, and it is in this spirit that Alexander Schneider and Peter Serkin (the greatly gifted son of the famous Rudolf) play them.

Untrammelled lyricism suffuses the D Major Sonata, and the A Minor is imbued with something of the same feverish drama as the aforementioned songs and the ‘Tragic’ C Minor Symphony completed during the same month as the third of these sonatas, the G Minor. This last-named sonata combines certain expressive aspects of the D Major and the A Minor, but has a somewhat less pronounced profile than its two companions.

Schneider’s violin playing is not the last word in tonal polish, but it has the same wonderful musicality and rhythmic thrust that characterize the playing of Joseph Szigeti and Adolf Busch in their primes. Peter Serkin is an ideal collaborator, and there seems no doubt but that he will more than do honor to the example set over the years by his illustrious father.

(The continued on page 94)
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Tchaikovsky: Symphony No. 5 in E Minor, Opus 64. The lonely loveliness of Tchaikovsky: Symphony No. 5 in E Major, Opus 26. (COLH 55).

Beethoven: Sonata No. 13 in E Flat Major, Opus 27, No. 1; Sonata No. 14 in C Sharp Minor, Opus 27, No. 2 (“Moonlight”); and Sonata No. 15 in D Major, Opus 28. (COLH 56)

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Advance Notice: Angel's eagerly-awaited new stereo recording of Tosca—with Callas, Gobbi, Bergonzi, and Prêtre—will be released later this month.

In the Four Last Songs, which show the composer at a much higher level of inspiration, Miss Stich-Randall fails to equal the previous recorded landmarks — Elisabeth Schwarzkopf and Lisa della Casa—in point of expressiveness and verbal communication. In terms of pure singing, however, she would be their equal were it not for the tonal mannerism cited above. Somogyi's deliberate tempos tend to expand musical stretches that hardly require such generosity, but he draws beautiful sound from his orchestra. Both versions are well recorded, with decidedly better spread and definition in stereo. G. J.

© © STRAUSS: Daphne: "O bleib, geliebter Tag!"; "Unbelehnte Daphne!"; Four Last Songs (Frühling; September; Beim Schlafengehen; Im Abendrot). Teresa Stich-Randall (soprano); Vienna Radio Orchestra, Laszlo Somogyi cond. WESTMINSTER WST 17081 $4.98, XWN 19081 $4.98.

Performance: Intermittently brilliant Recording: Warm and full Stereo Quality: Suitable

In the absence of a full-length recording of Daphne, the appearance of these two extended scenes would seem to be intended to whet the appetite for more of this relatively little-known Strauss opera. But for this listener, at least, it does not quite succeed in doing so. Despite some gorgeously written passages for orchestra as well as voice, the music in these scenes of Strauss' "pastoral tragedy" seems interminable. There is a curious lack of animation about it, further aggravated by the text's verbosity.

Few sopranos can match the credentials of Teresa Stich-Randall—style, range, and tonal beauty—for the requirements at hand, but even she fails to cope successfully with all the hazards of Daphne's treacherously high-lying and ultimately unrewarding music. The precarious moments are few, however, in the context of so much beautifully executed vocalism. On the other hand, some of the artist's sustained notes take on a cold, glassy edge that seriously affects the otherwise glowing tone quality.

In the Four Last Songs, which show the composer at a much higher level of inspiration, Miss Stich-Randall fails to equal the previous recorded landmarks — Elisabeth Schwarzkopf and Lisa della Casa—in point of expressiveness and verbal communication. In terms of pure singing, however, she would be their equal were it not for the tonal mannerism cited above. Somogyi's deliberate tempos tend to expand musical stretches that hardly require such generosity, but he draws beautiful sound from his orchestra. Both versions are well recorded, with decidedly better spread and definition in stereo. G. J.

© © RICHARD STRAUSS: Schlagende Herzen; Allerseelen; Mein Herz ist stumm; Ich wollte ein Strausslein binden; Säule, liebe Myrte; Die Georgine; Die Nacht; Stündchen; Befreit; Morgen; Drei Lieder der Ophelia aus Hamlet; Ruhe, meine Seele!; Leiser Lied; Schlechter Wetter. Evelyn Lear (soprano); Erik Werba (piano). Deutsche Grammophon SLP 138910 $5.98, LPM 18910 $5.98.

Performance: Appealing Recording: Good Stereo Quality: Discreet

The artist and the program are both above routine interest here. Evelyn Lear, one of our many talented artistic exports, has been appearing with success in Germany and Austria for several years. Although this is her first solo recital, she will be remembered from distinguished contributions to other recordings, notably to Angel's recent complete Boris Godunov in which she sings Marina. The selections for this program are well made, combining some of Strauss' best-known songs with others that are quite unfamiliar.
Ich wollt ein Sträusslein binden
und Säusle, liebe Myrte,
set to the lyrics of Clemens Brentano.

So do the three Ophelia Songs, written to translations of Shakespeare's texts and apparently receiving their first recorded performance here.

Miss Lear has the pure, soaring vocal quality on which the best Strauss interpretations are based—an ideal instrument for the lyric fervor of Bel reit and Aller re cle n. But she is also an intelligent interpreter who captures the delicate moods of Morgen and Die Nacht with sensitive insight. She handles the Ophelia Songs brilliantly, but these settings, though successful as depictions of a distraught mind, are somewhat unrewarding as lieder. As for the Brentano songs, even Miss Lear's artistry cannot remove the traces of artificiality from Strauss' convoluted vocal line. But the over-all impression gained from this recital is more than gratifying, for this surely is an artist of the first rank.

Werba's collaboration is valuable, as always, and the recorded sound, though somewhat distant, is satisfactory. Full texts and translations are provided, but DGG's liner notes are again faulty. The assertion that "no female singer has hitherto devoted a long-playing record exclusively to Strauss" overlooks Hilde Gueden and Lisa della Casa. Another statement—"Ruhe, meine Seele has, for no obvious reason, never before been recorded by a woman"—ignores Helen Traubel and Kirsten Flagstad. I realize that these notes were originally written for the German market where the annotator's statements may have some validity because the recordings I have cited may not be available there. But when the liner notes are to be circulated in this hemisphere, care should be taken to avoid such glaring misrepresentations. G. J.


Performance: The master's own
Recording: Good
Stereo Quality: Effective

I don't know who at Columbia is thinking up the titles for the company's Stravinsky project, but I wish whoever it is would coin more appropriate and/or imaginative ones or cut them out altogether. Recently it was "Favorite Short Pieces"—a "pop" concert (the title suggests) consisting of some of Stravinsky's most esoteric and obscure works. A gag, surely, but at whose expense?

Now we have "Stravinsky Conducts His Choral Music!" All of it? Some of it? And since the latter is true, so what? It might just as readily be released under such a pertinent, witty, inclusive title as "A Phonograph Record" for all the point it makes.

Yes, it is choral music, but again, it is esoteric. Zvezdoliki (1911)—a cantata which, like the Symphonies for Winds, is dedicated to Claude Debussy—is part Russian-liturgical and (I guess it's unsurprising enough) part Claude Debussy, a composer
who Stravinsky's recent writings show has diminished rather shockingly in his present personal esteem. The work is effective, but incapable work, as it always has been. It is, to be sure, transcribed sketch—but through its instrumental personality, chord distributions, and certain characteristically stressed asymmetries, the work is so thoroughly Stravinskian that a careless listener might think he was hearing one of Stravinsky's original neo-Baroque numbers such as the Dumbarton Oaks Concerto. It is a tour de force of rather an esoteric variety and, in its intellectual way, curiously moving as a species of Stravinskiana—quite apart from its relationship to the Bach who wrote the actual notes.

Babel (1944) is another wisp of a piece that packs a wealth of detail into a moment's space. It is in Stravinsky's restrained "Apollonian" neoclassicism—muted, controlled, but remarkably sweet and touching in effect.

A Sermon, a Narrative and a Prayer (1961), texts selected by Robert Craft (from the Bible) is an extended work in Stravinsky's recent quasi-atonal, serial manner. As in all of these curiously original vocal-instrumental works, an essentially nononsense, incantational vocal line or lines rides serenely and even relentlessly over a Stravinskian adaptation of the twelve-tone lurchings and leapings and pointillisms of the Schoenberg-Webern school. If the work seems merely peculiar at first hearing, I advise you to stay with it. The third or fourth time through, you will more likely than not find it arresting and quite deeply affecting. It is an utterly de-personalized musical statement. And the performance—particularly the elegant work of the young mezzo Shirley Verrett and the tenor Loren Driscoll—is musicianship and sensitivity a mile wide.

Stravinsky's performances—their value, that is—need no further comment than that they are considered, apparently well executed, and are his own documentation of himself as a composer. The recorded sound is a little thin on occasion, but then again, this, for the most part, not music of conventionally "rich" texture. The stereo treatment is both subtle and apt.

**New Releases**

- Rossini-Respighi<br>LA BOUTIQUE FANTASIANA<br>ROSSINIANA Orchestra of the Vienna Philharmonic<br>Antonio Janjigian, conductor<br>VRS-1121 & VSD-71127

- Prokofiev<br>SYMPHONY NO. 3, OP. 44<br>LE PAS D'ACIER<br>Utah Symphony Orchestra<br>Maurice Abravanel conductor<br>VRS-1122 & VSD-71122

- PHYLIS CURTIS sings<br>CANTIGAS Y CANCIONES OF LATIN AMERICA<br>Ryan Edwards, piano<br>VRS-1123 & VSD-71125

- JAN PEERCE ON 2ND AVENUE<br>Love Songs from the Golden Era of the Yiddish Theatre<br>with orchestra conducted by Gerson Kingsley<br>VRS-9166 & VSD-79166

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**The GREAT WALTZ COMPOSERS**<br>Lanner: Hoffsschalz<br>Yoh. Strauss, Jr: "Seid umschlungen, Millionen!"

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- LA CASA DEL MEXICANO<br>THE RINGLING BROTHERS CIRCUS<br>"Onegenius of its kind, the late Pierre Monteux."

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**JAN PEERCE ON 2ND AVENUE**

- "Onegenius of its kind, the late Pierre Monteux."
Three Pieces for String Quartet and the Etude for Pianola. The originals date back to 1917, before the neoclassic urge had taken hold of the composer, and are thus more closely related to Stravinsky’s early “Russian” period. But, in their orchestral guise most of all, they give off—a long with the two orchestral works—that aura of the early sixteenth century—the special aura of their period (Diaghilev’s Paris) with a joyous creative brilliance that, for the aficionado at least, is irresistible.

The performances are pure Stravinsky—hard, precise, elegant, and crystal-clear. One can conclude the long run that it is somehow beside the point to attempt to compare the accumulating mass of the composer’s own readings of his work with those by other conductors.

II. F.

in stereo before, but in different couplings—the Saint-Saens by Starker himself on Angel and by Fournier on Deutsche Grammophon, and the Tchaikovsky by Rostropovich on DGG and by Fournier on Angel. However, as a combination of topnotch performance, apt coupling, and fine recorded sound, the new Mercury disc takes the palm, in my estimation.

D. H.

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(Continued on page 102)
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 Avec le consentement de l'addresseur..."

With the exception of the Deller Consort's performance of Sullivan's The Long Day Cloak, released here for the first time, all of the material in this very enjoyable collection has been culled from previously issued Deller recordings for Vanguard. The selections — ranging from Vaughan Williams' setting of Loch Lomond to the famous Handel "Largo" (the only item in which the countertenor does not participate) — have obviously been chosen to represent many different categories, including Renaissance, Baroque, Christmas, and folk song, along with familiar pieces. The juxtaposition is extremely skillful. Deller's solo songs are set off by works sung by his vocal ensemble. The result is an extremely pleasant recital that should appeal to almost anyone. At the bargain Everyman-series price, this disc makes an admirable introduction for those not familiar with Deller's artistry — an artistry so considerable as to prevent the more hackneyed

SELECTED SUGGESTIONS

WOLF: Italienisches Liederbuch (see Best of Month, page 71)

COLLECTIONS

DELLER CONSORT: Album of Beloved Songs. Loch Lomond: Annie Laurie. Summer is returned to: The Oak and the Ash; Drink to me only with thine eyes; Green-sleeves (The old year is fled); Who's going to shoe your pretty little foot; Pat-a-pan.

Handel: Samson: Return O God of Hosts. Jephtha: Sequen of horror. Messiah: He was despised: O thou that tellest good tidings; Maureen Forrester (contralto); Herbert Tachezi (harpsichord, organ); F. Solisti di Zagreb. Ansoni Jangiro cond. VANGUARD BACH GUILD BGS 70659 $5.95, BG 669 $4.98.

Recording: Excellent

Stereo Quality: Ideal

The name Maureen Forrester seems to be popping up on record jackets everywhere these days, on different labels almost simultaneously. As far as I am concerned, all these record companies should consider (Continued on page 104)
Tony Mottola... alone in the spotlight... playing his guitar over the close supporting background of a small, keenly sensitive group... making some of the most beautiful music you have ever heard.

This is the music that makes hearts sing... the music of Paris... music of swirling gaiety... music of subtle charm... music with the bittersweet flavor of a great vintage wine.

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Even a person who had never been to France knows something about the country, knows something of the French mode of life and French mode of living.

We all absorb this from the music of France. If we have actually been to France, certain tunes will have certain specific associations. But you don't have to go to France to understand and react to the music that is so typically French — the music that makes us feel Parisian.

This is particularly true of a musician such as Tony Mottola. More than most people, he is sensitively attuned to the waves of feeling that emanate from a song because of his highly developed skill both as an independent interpreter of songs — as a solo performer — and as an intuitive collaborator when he plays accompaniment to Perry Como, as he has for two decades. As a guitarist, he has a very special reaction to the music of France because the man he calls "the greatest guitarist who ever lived" — Django Reinhardt — spent his career in the musical milieu of Paris.

There is, however, very little that is preconceived in Tony Mottola's approach to French songs. He meets each of them as a fresh and exhilarating experience. This album, as it exists now, grew and took shape because of the exploratory thinking that went on in the course of its development.

Tony Mottola spent days going over the possibilities for an album of French songs (it would have been simpler to make six albums, he said later, because then he wouldn't have had to decide what not to include in just one.) Finally, Guitar... Paris, was born.

In some of these pieces you will hear phrases that derive from Reinhardt, and in all of them you will hear the spirit that is Paris. All intermixed in special magic, compounded out of the perfectly brilliant recording technique of Command, and the sensitive artistry of Tony Mottola.

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MARCH 1965

CIRCLE NO. 16 ON READER SERVICE CARD
# More Classical Reviews

## In Brief

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<td><strong>BEETHOVEN:</strong> Piano Concertos: No. 2, in B-flat, Op. 19; No. 4, in G Major, Op. 58. Julius Katchen (piano); London Symphony Orchestra. Pierino Gamba cond. LONGON 5174 $5.98, CM 9374 $4.98.</td>
<td>The youthful B-flat concerto comes off with champagne sparkle, not only because of Katchen's brilliant finger work, but also because of the Italianate <em>brio</em> quality of Gamba's accompaniment. A similar approach, however, spoils the Fourth, the composer's most nearly perfect concerto—it lacks weight and communicative impact. Among modern recordings, my preference is the Fleisher-Szell collaboration. D. H.</td>
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| **EGK:** Abraxas—Suite from the Ballet. HENZE: Undine—Wedding Music. FINE: Divertions for Orchestra. Louisvile Orchestra, Robert Whitney cond. LOUISVILLE FIRST EDITIONS LOU 643 $7.95. | Eek's ballet suite seems to be a catch-all of our century's modernist tonal devices, and separated from the stage action it seems fragmentary and willful. The ballet excerpt by Henze has its own peculiar flavor despite its debt to Stravinsky. American Irving Fine's *Divertions* is a wonderfully wise and tender blend of styles, particularly that lyrical sweetness that was his unique gift. W. F. |

| **HAYDN:** Divertimento in E-flat Major for Strings ("Echo," Hob. 11:39). PURCELL: The Fairy Queen: Two Suites. TELEMAN: Don Quixotte Suite. Wiener Solisten, Wilfried Bottcher cond. VANGUARD BACH GUILD 70662 $5.95, BG 662 $4.98. | The Haydn Divertimento is more interesting for its contrived effect of two ensembles, one "echoing" at a distance, than it is for musical values, but it is nonetheless charming. The Purcell dances are quite a bit more substantial. Best of all is the Telemann, a wonderfully fanciful depiction of such things as the Don's sighs of love and his attack on the windmills. The performances are first-rate, full of gusto and verve, and the recorded sound is fine. I. K. |

| **MOZART:** Piano Concertos: No. 16, in D Major (K. 451); No. 23, in A Major (K. 488). Géza Anda (piano); Salzburg Mozarteum Camerata Academica, Géza Anda cond. DEUTSCHE GRAMMOPHON SLP 138870 $5.98, 138870 $5.98. | The festive and stately constructed D Major concerto, an undervalued neglected work, is tailor-made for Anda's nervously brilliant style, and this recorded performance is masterly in every respect. The exquisite A Major concerto fares less well in Anda's hands: the fast movements lack breathing spaces and the wonderful slow movement seems too greatly drawn out by comparison. For the latter, the Kempff-Leitner collaboration (also on DGG) remains a touchstone. Good sound here. D. H. |

| **PROKOFIEV:** Romeo and Juliet—Ballet Music (excerpts). Philharmonia Orchestra, Eileen Kurtz cond. ANGEL S 36174 $5.98, 36174 $4.98. | When directing performances of ballet music in concert, long-time ballet conductors such as Kurtz often stress the rhythmic aspects of the music—understandably enough—at the expense of the expressive and lyrical. Kurtz happily avoids this pitfall here: we never forget, in this elegant performance, that Prokofiev the melody writer is the star of the show. The recorded sound is clear but subdued. W. F. |

| **RICHARD TAUBER:** Favorite German Songs. Art, wie es's möglich war: Du, de liegt mir im Herzen. Morgen muss ich fort von hier: Konntest du Vogel gefangen; Der Mai ist gekommen; Ich weiss nicht was soll er bedeuten; and fifteen others. Richard Tauber (tenor); Mischa Spoliansky and Percy Kahn (pianists) Odem Orchestra. Friede Weissmann cond. CAPITOL T 10369 $3.98. | In other circumstances a recital of twenty-one unpretentious German songs—some traditional, others composed in the folk style—might seem too much of a good thing. But Tauber sings them all with fine showmanship, a caressing and mellow tone, absolute ease, and the kind of consummate art that conceals itself. The orchestral accompaniments are a mite saccharine, but the piano backing on about half the program is well suited to Tauber's intimate style. The sound is reasonably good, considering the masters were made in the early Thirties. G. J. |

### Recording of Special Merit

| **BENIAMINO GIGLI:** The Young Gigli. Ponchielli: La Gioconda; Enzo Grimaldi; Cielo e mar; Deh! son tranquilo. Puccini: Tosca: Recordarum amicia; E Lucia le stelle; La Bohème: O soave fanciulla. BOITTO: Melissoflote: Dai campi, dai prati; Se tu mi doni; Lontano, lontano; Giunto sul ponte en-signo. MAZZAGARI: Cavalleria Rusticana; Mamma! quel sodo è生成. IRIS: Aprì la tua finestra. Lodoletta; Ah! risorrida nella tua espanza. DONIZETTI: La Favorita: Spirito gentil, Addio, fuggeri mi lascia. GIORDANO: Fedora: Amor ti vieta; Vedi, io piango. Gigi Gigli. Ponchielli: La Gioconda: Enzo Grimaldi; Cielo e mar; Deh! son tranquilo. ANGEL COLH 146 $5.98. | Performance: Beautiful. Recording: 1918-1919, well remastered Beniamino Gigli made his opera debut in 1914. Four years later he began a recording career that continued uninterrupted for nearly forty years. During 1918 and 1919, prior to his Metropolitan debut, which established him as the successor to the ailing Caruso, he recorded twenty-four selections for HMV in Milan, of which sixteen are included on this disc. In common with many similar entries in the Angel COLH series, this presentation is a model of its kind, expertly engineered, purposefully organized, and excellently annotated (though carelessly proofread). At the age of twenty-eight, Beniamino Gigli was already a polished vocalist and a mature interpreter. While in some cases later recordings (of the two *Tosca* arias, in particular) surpassed these Milan examples in assurance and tonal solidity, none of these early recordings can be termed a "youthful" effort. They stand comparison, in fact, with the achievement of any tenor at any age. I have, for example, no fear of the first-act duet from *La Gioconda*, in which the Barnaba is the obscure but very able baritone D. Zani. Although in his later electrical versions Gigli was more appropriately paired with Giuseppe de Luca or Titta Ruffo, his performance in the Milan recording reveals the same warm timber, the same lyric ardor, and virtually identical felicities in phrasing. In another (Continued on page 106) |
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MARCH 1965
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instance, "Amor ti vieta," comparison with a later version does show a marked change—from one kind of excellence to another. In the early version the tone is lighter, the style less passionate, but the later recording (1940), with its heightened intensity, reveals no diminution whatever in richness and evenness of tone.

The sequence contains several items not duplicated during the singer's long career. In addition, two selections are of unusual interest: "Spirito gentil," in which sensuous tone and passionate delivery are held in check by as much bel canto restraint as Gigli was ever able to muster, and the aria from Mascagni's Lodoletta. This was probably the first recording of the latter, following the opera's premiere (1917) and a series of performances in which the tenor appeared under Mascagni's baton. The only weak link in the lot is the Mefistofele duet, where the voices are not well blended, and Gigli, perhaps affected by his acidulous partner, is off his usual unruffled form.

This collection is unique in its detailed documentation of Gigli's early career. And, like other representative discs of the tenor, now available in larger numbers than ever before, it can be heard as the years go by with unabating pleasure again and again—and again.

**RECORDING OF SPECIAL MERIT**

**ANTONIO MAGINI-COLETTI:**


Performance: Compelling
Recording: Acoustical

Antonio Magini-Coletti (1855-1912) was one of the first great baritones whose art is adequately preserved on records. Though his career was largely limited to Europe—save for a few performances at the Met in 1891 and 1892—he has long been a favorite of international collectors for reasons that are amply evident in this presentation. The accompanying notes relate that Magini-Coletti once interrupted his blossoming career as a baritone to attempt a new one as a tenor. It is difficult to understand such a step, for his voice is of the truest baritone quality, solid as flowing bronze, powerful and vibrant with a splendid ring on top. It was one of those "personality" voices that, like Ruffo's, Battistini's, De Luca's or Stacciani's, instantly identified its owner. Magini-Coletti was a vivid dramatic interpreter, but he could convey a range of emotions by subtle vocal shading and inflection, without need to alter the vocal line. His minor intonation blemishes, every one of these selections is outstanding, and the assisting artists are all of star caliber. The hilarious trio from Cristoforo and la Comare in which Magini-Coletti is teamed with that supreme buffo Ferruccio Corradetti, makes one wish for a complete recording of that little-known opera buffa.

The original Fonotipia discs (from around 1905) have been expertly restored, and the surface noise will not disturb listeners who want to hear exceptional vocal artistry.

**G. J.**

**RECORDING OF SPECIAL MERIT**


Performance: Idiomatic and impeccable
Recording: Excellent
Stereo Quality: Ditto

If I take the trouble to express the opinion that I have never been terribly impressed by the playing of a man who is almost universally regarded as the world's greatest living pianist—I refer of course to Artur Rubinstein—it is less to indulge myself in an eccentricity of taste than it is to emphasize my astonished pleasure in this superb new recording of more or less contemporary French music.

The reasons for my delight and surprise are almost too numerous to put down. To start with: like few pianists (and even fewer conductors of the orchestral version), Rubinstein plays the Valses nobles et sentimentales with a rather hard, unyielding tone that totally suits their cryptic, sinister beauty—not with the lush prettiness of sound that turns them into a chain of merely elegant salon pieces. On the other hand, he can take an earlier Debussy-influenced work like La Vallee des clochettes and evoke the kind of impressionistic mood usually associated with Gieseking, while maintaining a clarity of line and a sense of shape that is almost classical in its purity.

The Poulenc pieces he finds all the right jokes in—he may broaden them a bit too much, but this is carping—and at the same time he can indulge the composer's musical-hall business and sentimentality without patronizing this side of him. Not many per-
formers of the Old School can pull that neat trick off! And so it goes the program through. There is a Fauré performance that yields to the French in Fauré. Rather more than it led to the Schumann-Chopin models that served as this composer’s point of departure, and finally a Chabrier Scherzo-va1e that is a riot of color and madcap virtuosity. But again, the face of the playing smiles, never leers or patronizes.

The execution is clean, hard brilliant, and fairly close to impeccable, and RCA Victor’s recorded sound emphasizes these qualities to perfection.


**Performance: Star-like**

**Recording: Ancient but serviceable.**

For those interested in the fascinating momentoes of a bygone operatic era, this representative collection of Luisa Tetrazzini’s amiable art should hold a special attraction. Critical listeners, however, will find that her achievement falls considerably short of such prize performances from the Maestro’s baton as the Wagner Faust Overture (1946), the Richard Strauss Don Juan (1951), and the Ravel Daphnis and Chloe Suite No. 2. We also have a too long-delayed LP version of the Samuel Barber Adagio for Strings, which Toscanini gave its première orchestral performance in 1938. The readings of the youthful and impressive Wagner Faust Overture and Strauss Don Juan remain the standards for today, even through occasionally fuzzy recorded sound, but the Tchaikovsky Romeo performance still strikes me as rather heartless and hasty, just as it did when I first heard the records more than fifteen years ago.

Toscanini’s way with seeming tidbits of the repertoire is another delcetable aspect of the album—be it the blinding virtuosity of Paganini, the gossamer delicacy and precision of Mendelssohn, the meting lyricism of Gluck, or the pulse-tingling get-up and go of the Sousa march and Strauss polka (the Maestro had no gift for waltzes). Almost all the pieces here were processed

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**MARCH 1965**

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**Performances: Fiery**

**Recording: 1941-1952 vintage**

This Toscanini omnibus-gatherum brings back to the active long-playing catalog (after too long an absence) such prize performances from the Maestro’s baton as the Wagner Faust Overture (1946), the Richard Strauss Don Juan (1951), and the Ravel Daphnis and Chloe Suite No. 2. We also have a too long-delayed LP version of the Samuel Barber Adagio for Strings, which Toscanini gave its première orchestral performance in 1938. The readings of the youthful and impressive Wagner Faust Overture and Strauss Don Juan remain the standards for today, even through occasionally fuzzy recorded sound, but the Tchaikovsky Romeo performance still strikes me as rather heartless and hasty, just as it did when I first heard the records more than fifteen years ago.

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Voice-matic

from 78-rpm metal masters, and for the most part the sound ranges from presentable in loud passages to surprisingly good at lesser volumes. I noticed what sounded like a tape drop-out at the climax of the Barber Adagio, and the end of the Ravel Daphnis was slightly higher in pitch than the two earlier LP pressings.

D. H.


Performance: Intense
Recording: Excellent

Jon Vickers is the thinking man's tenor—an artist whose every performance bespeaks a thorough comprehension of the task at hand and a keen intelligence at work on it. In the opera house, these valuable attributes, aided by considerable histrionic gifts, amply justify the tenor's great international reputation. He has been less consistently successful on records, for reasons that are made clear in this, the artist's first aria recital. It is not surprising that the finest moments on the disc come from RCA Victor's previously released complete Otello set. Here the artist is caught in the excitement of an actual performance. The heartbreakingly agony of the great third-act monolog and the utter despair of the death scene are captured movingly, honestly, and without the artist's resorting to excessive melodrama.

This very high level is approached in the two Pagliacci excerpts and in ""Us d' l' azzurro spazio,"" where Vickers offers fervent singing coupled with vigorous declamation. In the other excerpts, however, he is far less satisfying and at times entirely out of his element.

Vickers' voice has abundant power and a manly, heroic ring, and it embraces all the notes that ought to be considered basic equipment for a successful interpreter of the Otello-Siegmund-Tannhäuser-Samson-Florestan repertoire. He is not a bello-lano, and knows that dramatic singing must have variety in color and dynamics. But these laudable intentions are not always transmitted to his singing. His voice has little sensuous appeal or individual character; and it lacks the facility to convey meaning by caring a phrase. His legato, particularly in upward-curving phrases, is bumpy, and his difficulty in sustaining long-breathed passages often causes him to rush the music's natural flow. As a result, ""Cielo e mar"" and ""Recondita armonia"" become unduly declamatory, ""Abi ti, ben mio"" is too tense, and the lyricism in the Cïãa air somewhat tentative.

The brilliance of the Otello excerpts makes me wish that RCA Victor's gifted producer Richard Mohr had offered fewer areas and more complete scenes, and had not abbreviated certain orchestral passages. This method, generally more conducive to artistic excellence, would have enormously enhanced the contribution of Vickers, who is more a singing actor than a recitalist. Otherwise, this is an outstanding technical production, and Serafin's orchestral accompaniments are just about perfect. No texts are supplied with the disc and the liner notes read like a press release for Mr. Vickers and the Metropolitan Opera.

ANDRE WATTS: A dazzlingly gifted young pianist

André Watts, the dazzingly gifted young pianist that Leonard Bernstein discovered at a youth-concert audition a couple of years ago, is a remarkable achievement for a musician not yet twenty. But taken simply as a representation of the music involved, we may be less than perfectly happy, less than fully nourished. Young Mr. Watts has a way with the Romantics, make no mistake about that. It was a Liszt concerto that launched his career, and his work here with the Sonatas of the great third-act monolog and the utter despair of the death scene are captured movingly, honestly, and without the artist's resorting to excessive melodrama.

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

© © LAURINDO ALMEIDA: Guitar from Ipanema. Laurindo Almeida (guitar); Irene Krall (vocals); flute and rhythm section. The Girl from Ipanema; Isabella; Quiet Nights of Quiet Stars; and eight others. CAPITOL ST 2197 $4.98, T 2197* $3.98.

Performance: Polished
Recording: Very good
Stereo Quality: Very good

When bossa nova first arrived in this country, two or three magazine articles claimed that Laurindo Almeida had virtually invented it. This set off shock waves of hiliarity among Brazilian musicians, who had never heard or even heard of the Almeida World Pacific disc from which they had supposedly derived bossa nova. They still don’t consider Almeida a good bossa nova musician. People say covering and not Almeida.

But whether or not Almeida is a good bossa nova musician, he is a good musician. And this disc, though questionable in its purpose, is rather attractive. On most tracks, Almeida plays a new electronic guitar with a wide range of tonal colors, some quite pleasing, some less so. On The Girl from Ipanema, Almeida makes it sound like an electric organ, and more specifically like the vibrato-less organ of Rio’s Walter Wanderley. The Brazilians, by the way, have generally made more sensitive and individual use of the electric organ than we have, and one of their most distinctive organists, composer Djalma Almeida, is heard on one track of this disc.

Another Brazilian composer, violinist Fafa Ferreira, is heard on one track of this disc; and another Brazilian composer, violinist Fafa Leomos, is heard on another track.

Irene Krall sings on two of the tracks. Her vocal work is the best thing in the album. When is some record company going to get smart and make proper use of this gifted woman?

G. L.

RECORDING OF SPECIAL MERIT

© © TONY BENNETT: Who Can I Turn To. Tony Bennett (vocals); orchestra. George Siravo cond. Little, Little Girl; What for Debby? I’ve Never Seen; Autumn Leaves, and eight others. COLUMBIA CS 9085 $4.98, CL 2285* $3.98.

Performance: Superb
Recording: Excellent
Stereo Quality: Good

When he first started to become popular with Rags to Riches and Because of You, Tony Bennett was a joke, and night-club impersonators got more mileage out of him than anyone else. But hard work, innate musicianship, excellent arrangements, and a superb ear for off-beat material (I Left My Heart in San Francisco, I Wanna Be Around, and now tempo, and Between the Devil and the Deep Blue Sea as a near-ballad. But, again like Miss Mercer, Bennett can sometimes be too kind in agreeing to record a new song. There are enough instances of overgenerosity here to make this album less than his best. Nonetheless, any new Bennett album is a necessity for lovers of American popular songs. J. G.

© © JOHNNY CASH: Bitter Tears. Johnny Cash (vocals); unidentified accompaniment. Dùms; White Girl: Custer; Apache Tears; and four others. COLUMBIA CS 9048 $4.98, CL 2245* $3.98.

Stereo Quality: Good
Recording: Very good
Performance: Understated

In the flood of publicity that has attended the Civil Rights Act of 1964, the “long hot summer,” the Mississippi triple murder, the March on Washington, and the award of the Nobel Peace Prize to Dr. Martin Luther King, many people have forgotten the long-standing grievances of the American Indian. Edmund Wilson has not forgotten, nor have Buffy Sainte-Marie, Marlon Brando, and the Indians who live near Kinzua Dam in New York. Nor has the pop-country-folk singer, Johnny Cash, who is partly of Cherokee extraction.

Cash’s newest album, “Bitter Tears,” is made up of songs that deal with the Indian. All but one were written by Cash or Peter

MARCH 1965
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LaFarge. The best are by LaFarge. They are White Girl, which contains the beautiful line about a dead love affair, "It was splendid while it ran"; The Ballad of Ira Hayes; and As Long as the Grass Shall Grow, based on the magnificent and disregarded language of the land treaty with the Iroquois nation signed by George Washington.

These, and others, are performed by Cash with his customary angry, masculine understatement. This is perhaps Cash's most important album, and it is too bad that he relied on some of his hackneyed pop tricks: it is not really necessary to play Taps during Ira Hayes. But Cash's is a deeply felt, deeply moving performance nonetheless, and I hope that the singer's popularity awakens a wide audience to his message.

J. G.

© © RAY CHARLES SINGERS: Songs for Lonesome Lovers. Ray Charles Singers (vocals); unidentified orchestra. One More Time; By Myself; People; Smile; and eight others. Command RS 874 SD $5.98, RS 33874 $4.98.

© © RAY CHARLES SINGERS: Al Di La and Other Songs for Young Lovers. Ray Charles Singers (vocals); unidentified orchestra. Bluesette; Satin Doll; The Girl From Ipanema; Al Di La; and eight others. Command RS 870 SD $5.98, RS 33870 $4.98.

Performance: Blond
Recording: Excellent
Stereo Quality: Excellent

The two newest albums by the Ray Charles Singers have as their main asset sharp, clear, truly incredible sound, the kind Command is noted for. The albums are authentic sound spectacles.

But that almost says what there is to say. One is an album of happy love songs, the other of unhappy love songs, both sung by a precision vocal group. Some of the songs are good, some not so good. I cannot believe, as the notes claim, that Charles looked through more than 150 Italian songs before deciding to record the very popular Al Di La. But on the other hand, he includes the sly, charming Coleman-Leigh Real Live Girl, and a Swingles-type number by Dick Hyman bluntly titled Johann Sebastian Bach. There is also the latest Henry Mancini hit, Dear Heart, which surprisingly has a piano solo influenced by the other Ray Charles, and which proves that Mancini can write anything well. On I Wish You Love, the gentleman who sings the line "No use leading with our chins" provides an unintentionally funny moment. And there are a good many favorite standards.

If you like skillful (but bland) pop groups and overwhelming sound, this is for you. Otherwise—perhaps for most of us—it is not.

J. G.

© © SAM COOKE: At the Copa. Sam Cooke (vocals); orchestra, Rene Hall cond. The Best Things in Life Are Free; You Send Me; When I Fall in Love; This Little Light of Mine; and nine others. RCA VICTOR LSP 2970 $4.98, LPM 2970* $3.98.

Performance: Commanding and relaxed
Recording: Good on-location sound
Stereo Quality: First-rate

Sam Cooke, who died suddenly this past (Continued on page 114)
Mr. Miller is an audiophile. He’s also a cost-conscious accountant who wants a new stereo receiver.

He listened to Brand X. $425.

He listened to Brand Y. $319.95.

Then he saw the new Bogen RF35, a 35 watt FM-stereo receiver. “Interesting,” he said, “What are the specs?” The salesman told him. “Hmmmm,” said Mr. Miller, “35 watts will drive most any speaker system.” The salesman nodded: “Thirty-five clean, useable watts.” “It sounds like 60.” “That’s right; distortion is almost unmeasurable.” “And,” said Mr. Miller, “20 to 20,000 cycles is more than anyone can hear.” “Unless your name is Lassie.” “How about that 0.85 uv. sensitivity for 20 db. of quieting? The RF35 actually meets broadcast-monitor standards.” “That’s Bogen. All that performance,” said the salesman, “for only $234.95.” Mr. Miller computed rapidly. “Wrap it up,” he said decisively. “And add,” his voice trembled, “the new Bogen B62 stereo turntable. The $69.95 model with variable speed control and automatic cueing.” The audiophile/accountant wore a smile all the way home.
December, was one of the most accomplished of all those young performers who have gone from a foundation in Negro gospel music and blues to a career in the big-league night clubs. As this recording of a performance at New York's Copacabana illustrates, the gospel pulse and the bold hot colors of rhythm-and-blues suffused everything Cooke did, but he also could fit a wide variety of material into his distinctive style.

His ballads here, for example, are fervently believable, and he adds the textures and rhythms of urban Negro life to such folk pieces as "I Had a Hammer" without distorting them. Cooke could take as vacuous a song as "Tennessee Waltz" and transform it with a leaping vitality into a number with hidden unspoken emotional dimensions. Had Cooke lived, he would certainly have become one of the major night-club performers of his generation.

Charles Albertine, arranger for the Elgarts, has scored a dozen songs identified with prestigious band leaders of the past and present. The writing style, however, is very much his own. Since the Elgarts lead an orchestra whose primary function is to produce music, one cannot fault Albertine's scores for lacking the superior inventiveness of the best writers for Ellington, Basie, and other leaders to whom he pays tribute here.

But, even on the Elgarts' own terms, this is not an especially infectious dance set. The rhythm is too often mechanically precise rather than flowing. The section writing, though expertly played, is the result of predictable formulas that listening is something like working on a large, overly simple jigsaw puzzle. In each number, all the pieces fit quickly and neatly, but there is little sense of a cohesive, organically living entity.

The playing is mostly ensemble, and perhaps predictable a formula that listening is somewhat like working on a large, overly simple jigsaw puzzle. In each number, all the pieces fit quickly and neatly, but there is little sense of a cohesive, organically living entity.

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The playing is mostly ensemble, and perhaps predictable a formula that listening is somewhat like working on a large, overly simple jigsaw puzzle.
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marvelous stuff in its archives, material that should be reissued in appropriate presentations. Why doesn't Decca commission somebody like Willis Conover to edit and tastefully package some of the great material it has lying around?

Much more could have and should have been done with this package. I am not one of Miss Fitzgerald's ardent fans—too often her work strikes me as coldly flawless but superficial. Yet she has made many classic recordings, and some of them are in this album. On nine of the tracks she is accompanied only by Ellis Larkins on piano. Few are the singers who could get away unaccompanied—just a few of the pianists who could provide a setting to make the whole thing natural and unaffected. Fortunately, Larkins was in the days these tracks were recorded a marvelous stuff in its archives, material that has been done with this package.

Why doesn't Decca commission someone to fully package some of the great material in their archives, material that has been done with this package?

Vocal nudity; even fewer are the pianists who are the singers who could get away unaccompanied. Few are the singers who could get away unaccompanied—just a few of the pianists who could provide a setting to make the whole thing natural and unaffected. Fortunately, Larkins was, in the days these tracks were recorded, a marvelous stuff in its archives, material that has been done with this package.

The other three tracks are an intrusion on the mood of the record. On Oh Lady Be Good (this is the famous performance of it), Miss Fitzgerald is backed by an orchestra directed by Bob Haggart and on the Ellington and McHugh tunes by the Billy Kyle Trio. All three are good tracks, but they just don't belong in this album.

The so-called stereo version of the disc is made from mono tapes and isn't worth the extra buck.

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**Performance:** Delightful

**Recording:** Excellent

**Stereo Quality:** All right

Aretha Franklin is a pops singer in the gospel vein. This means she skitters up and down scales, bends notes indifferently, breaks single vowels into two, three, four, or twenty parts, leaves great open spaces in the music, and then sings quick-like sixty-to-get-everything-in-place-in-time. The voice is very good, and powerful, but the way it is used is tedious—particularly on this disc.

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**Performance:** Striking

**Recording:** Excellent

**Stereo Quality:** Very good

Lena Martell, who looks to be a very pretty, pixieish young lady, is billed on the back of this disc, her first disc, as "a female Sammy Davis Jr." If I were in the business of supplying such tag-lines for performers, I think I would have suggested "the English Barbra Streisand." Comparisons with Miss Streisand—none of them vindictive—are inevitable: the same voice, the same presence. The same (if I may) quality Miss Martell, for instance, does the same thing to The Man I Love as Miss Streisand—did to Happy Day Are Here Again. And, like Miss Streisand, Lena Martell has a penchant for scattering irritating little off-beat numbers through her supper-club repertoire. Finally, she too tends to overdramatize her material. But I like her very much. She hasn't fully assimilated what she has learned from blues singers, and she apparently hasn't quite settled on her personality, but I suspect we will be hearing a great deal more from her.

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**Performance:** Delightful

**Recording:** Good

**Stereo Quality:** All right

One could argue that a reviewer's concern is aesthetics—that economics, advertising, and promotion are beyond his province. I demur. Advertising and promotion policy decisions made at RCA Victor, Capitol, Columbia, and other large record companies have a great deal to do with the music climate you and I will enjoy—or endure—in coming years.

Recently I have been seeing extensive Columbia advertising for an important record by Robert Horton, an actor become bland singer. At the same time, the company (Continued on page 118)
Mistakes you can buy cheap. And tape-making mistakes you're almost sure to get in recording tape sold dirt cheap without the manufacturer's name. The dangers for audiophiles? Fade out of high and low frequencies. Distortion. Background hiss. Even tape flaking, or worse, abrasiveness that can damage your recorder. Worth the gamble? Hardly.

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HIFI/STEREO REVIEW

has released this disc by Joe Mooney—a superb little adventure in popular song—as if they were trying to keep it a secret. They failed, or didn't bother, to send review copies to several important publications that I know of. Several distributors don't seem to have the Mooney record, and most stores don't stock it. If Columbia succeeds in pushing Horton into our national musical picture while as important an artist as Mooney falls into obscurity, a sin against American aesthetics will have been perpetrated.

This is Mooney's first disc in several years. He became known nationally as the leader of a superb and subtle quartet in the mid-1940's. In the 1950's he lived comfortably and well in Florida. Last year he returned to New York to appear in clubs and to record.

An excellent accompanist and organist, and a very good pianist. Mooney is also a singer who describes himself as having "no voice—only a delivery." But what a delivery! It is so thoughtful, so meaningful. so attuned both to the content of lyrics and the musical values of a tune, that the listener must attend carefully if he is to be rewarded with all the pleasures it offers. Mooney is about fifty now, but, like Ella Fitzgerald, he has a twenty-year-old's voice.

There is no point in discussing individual tracks of the album: all are done in Mooney's unmistakable personal style, and all are splendid. Mundell Lowe did the arrangements for the album, largely expansions of Mooney's usual organ self-accompaniment, and the effect is a little like an augmented version of the old Mooney quartet.

If this album doesn't move—and how can it, considering how little noise has been made about it—it will be said that "Mooney doesn't sell." But Robert Horton does—right?

Do you and American light music a favor; listen to this record, and if you like it, buy it.

G. L.

JOE MOONEY
An adventure in popular song

JOHN RIVERS:
Hello. Dolly; I Want to Hold Your Hand; Tender Is the Night; and nine others. REPRISE FS 1013 $3.98, FRANK SINATRA:
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Performance: Polished
Recording: Mostly excellent
Stereo Quality: Good

Just when it begins to seem that Sinatra's singing has had it—that his reputed growing indifference to the music business and his refusal to take care of his voice have at last undermined him—he turns out something superb. It seems to depend on whether, at the time of the recording, he happened to give a damn. Most Sinatra Reprise discs of the last couple of years have been indifferent affairs, and the pros were getting ready to assign him an honorable place in the museum of musical history. Then a few months ago came "It Might As Well Be Swing," made with the Count Basie band. It was a good if uneven disc. This one, on balance, is not
as good, but Sinatra's singing as such is better.

What pulls this record down is the inclusion of some substandard tunes among the excellent ones. *I Can't Believe I'm Losing You,* for example, has a lyric so trite that it rhymes "schemes" and "dreams," a match I consider only one notch above "moon" and "June" and maybe a notch or two below "laughter" and "after." What's more, some of the arrangements—namely the three by Ernie Freeman—are pretty sad. One of them is the title tune, *Softly as I Leave You,* which has been a hit single for Sinatra. This is an almost excellent tune that, in Freeman's handling, becomes sublimated rock-and-roll. I can appreciate Sinatra's need to get something going with the disc jockeys, but that doesn't mean I have to enjoy it.

Sinatra sings beautifully throughout the album, sometimes with more sensitivity, sometimes with less. When this man is on, there is no one in the business to touch him. And he is very much on in *Here's to the Losers and Emily,* to my mind the best tracks.

Various arrangers besides Freeman contributed to the record: Marty Paich, Nelson Riddle, and Don Costa each did several, and Billy May did one. Riddle's writing is still the best for Sinatra's approach.

Despite this disc's weaker tracks, this is Sinatra worth having.

G. L.

---

The charm of the songs lies in their melodies, some of which are quite good. But the lyrics are banal, geared as they are to the cotton-candy contents of the skull of the average teenager. But the most banal thing about this disc is Miss Smith. She has so many vocal idiocies that she produces exquisite squirms in a listener of any sensitivity. She has a ridiculous habit of applying a sort of glottal stop to terminal I's. It makes me feel as if I'd got an aspirin stuck in my throat. And she does something weird to n's. They wander off into one of her sinus cavities and get lost or stuck or something. Finally, her cornpone Southernisms are a drag. It's I love you, not ah Iuhv yew! That's all right for Gland Ole Oluy, but Miss Smith is—and

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**JAZZ**

©iumes Play Selections from Golden Boy. Art Blakey (drums), Lee Morgan and Freddie Hubbard (trumpets), Curtis Fuller (trumpet). Wayne Shorter (tenor saxophone), Julius Watkins (French horn), James Spalding (baritone saxophone). Bill Harber (tuba). Charlie Davis (baritone saxophone), Cedar Walton (piano), Reggie Workman (bass). Yet I Can’t Lend a Hand. This is the Life: There’s a Party. and two others. COMP SC 478 $5.98, CP 478 $3.98

Performance: Usual Blakey Recording: Average Stereo Quality: The same Jazz versions of Broadway show scores were at one time the hottest spot idea around. For a while they practically disappeared, but now they seem to be coming back. This is one of the newest, a version of Golden Boy by Art Blakey and the Jazz Messengers, who are expanded to eleven pieces for the project. I cannot comment on the scores as it was originally performed, having neither seen the show nor heard the original cast disc, but it sounds, in this version, no better and no worse than the workmanlike job that Charles Strouse and Lee Adams have turned out. One suspects that the audience leaves the theater talking about Sammy Davis, not whistling the tunes.

At any rate, given the changes inevitable with a larger group, this is the standard Blakey performance, the New East Coast Conservatism—funk-plus-modes—that he has been pursing for the past few years. As always, he has some fine young soloists who turn in good jobs, but the material is not completely suited to them. In any case the score is probably not one you will treasure.

© PETE FOUNTAIN: Pete’s Place. Pete Fountain (clarinet), Earl Vilovich (piano). Paul Guna (guitar, banjo), Oliver Felix (bass). Nick Fatool and Paul Edwards (drums), Godfrey Hirsch (vibes). Oh, Lady Be Good: That’s a Plenty; The Preacher; March to Peruna; and seven others. CORAL 757453 $4.98, 557453 $3.98.

Performance: Too derivative Recording: Crisp and clear Stereo Quality: Well-balanced

This album is a session recorded at Pete Fountain’s French Quarter Inn during the

1964 Mardi Gras in New Orleans. Fountain is a clarinetist so indebted stylistically to Benny Goodman that there is little reason to listen to Fountain rather than to the original Goodman recordings. He receives energetic backing from his colleagues, but they too lack individuality. The simple arrangements are relentlessly predictable, and no matter what the tune—from a Dixieland standard to Horace Silver’s The Preacher—the approach is always out of the same unadventurous swing-era bag. Too, Fountain’s playing has scant emotional depth. His Black and Blue, for example, comes through as bland watercolors.


Performance: Longuid Recording: Good Stereo Quality: Adequate
This is the first in-concert recording made by Stan Getz in his new persona as the bossa nova king, "the man who gave you" Desafinado and The Girl from Ipanema. Included in his new group is vocalist Astrud Gilberto, wife of the Brazilian singer João Gilberto. Mrs. Gilberto's voice is astonishingly close to the quality of Getz's tenor: soft, warm, intimate, nostalgic—what the Brazilians call saudades. Their affinity is perhaps best shown on the little figure that opens and closes Mighty As Well Be Spring. The most notable of Getz's sidemen is vibraphonist Gary Burton, whose piece The Singing Song is quite similar in mood to the "Focus" pieces Eddie Sauter wrote for Getz.

Getz's technique and lyricism are still phenomenal, but in his performance of the lovely and little-known Here's That Rainy Day, one feels that perhaps he has refined his best qualities too far, that he is now a bit too sweetly mournful to play jazz. Altoist Paul Desmond, who is as sweet and mournful as Getz, has retained the residency that makes it possible for him to play fine jazz. But on the evidence of this set (recorded at New York's Caffe Au Go Go), Getz himself seems on his way to becoming an excellent pop musician.

Jackie McLean: Destination Out. Jackie McLean (alto saxophone), Grachan Moncur III (trombone), Bobby Hutcherson (vibraphone), Larry Ridley (bass), Roy Haynes (drums). Love and Hate; Erotonico; Kahlil the Prophet; Riff Raff; Blue Note ST 84165 $1.98, 4165* $4.98.

Performance: Emotional
Recording: Good
Stereo Quality: Satisfactory

Some musicians make great successes for a brief time, and then drop into obscurity or else work on the periphery of public acceptance, playing to a small coterie. Some few become stars. The alto saxophonist Jackie McLean, still a young man, has been playing for the better part of two decades, and all of that time he has been one of the best jazz alto players in the country. Furthermore, his work has steadily improved, gaining depth and breadth, keeping up with the latest trends, always remaining strikingly individual. For all this, McLean has never become a highly popular jazz musician.

His new record is made with the soloists with whom he has most recently been involved—Grachan Moncur III on trombone and Bobby Hutcherson on vibes—but with Roy Haynes replacing Tony Williams, the remarkable young drummer who apparently divides his time between McLean and Miles Davis. Three of the four long pieces are by Moncur, the last is by McLean. All are sectional works involving changes in time. McLean's playing seems to be more conservatived, after a time spent with some of Ornette Coleman's concepts, and Hutcherson seems to be growing out of some of his Milt Jackson mannerisms into a potentially important soloist. The album is not as startling or exhilarating as McLean's "Let Freedom Ring" (Blue Note 84106, 4106) or "A Fickle Sonance" (Blue Note 84089, 4089), but is still a better than respectable effort by an important musician.

JIMMY SMITH: The Cat. Jimmy Smith (organ); orchestra, Lalo Schifrin (Continued on page 123)
MELODY RETURNS TO BROADWAY

The popularity of original-cast recordings of Broadway musicals presents a problem to the reviewer. Should he consider the music in the context of the show? Or should he, as I choose to do, forget about the show and review it strictly as music?

For many, perhaps most, listeners, a record such as any of the three reviewed here serves a nonmusical purpose. It is a souvenir of something its buyer has seen, an auditory aid to memory, an extension into another dimension of the souvenir program with its photographs and tedious little biographies of the show's principals. That this is an important function of a show disc is attested to by the fact that the record jackets of two current musicals, Golden Boy and Ben Franklin in Paris, contain copies of the theater programs themselves.

But Bizet's L'Arlésienne Suisse owes nothing of its charm to the fact that they were written as incidental music to an Alphonce Daudet play. Memories of Nijinsky are not requisite to the enjoyment of Stravinsky's Le sacre du printemps or Debussy's Prélude à l'après-midi d'un faune. You do not have to have seen La grande odalisque. You do not have to have seen the Eisenstein film Alexander Nevsky to derive pleasure from the score Prokofiev wrote for it. And as far as I'm concerned, you need not have to see a Broadway show in order to enjoy its musical score on records. If a show has musicals, then the music is no good—and this, alas, is the case with too many Broadway scores. I don't care how good so-and-so was in the leading role, how clever and comic his or her movements on stage. I don't care about the lighting, the staging. That has meaning when I go to the theater, but not when I listen to a record, which is a separate and distinct aesthetic experience.

If you listen to most show discs with this in mind, you are bound to be struck by their colorlessness, their tunefulness, and the narrow focus of their lyrics. Why is this? Because the songs for today's musical shows must advance the plot. We are in the era of the "integrated musical"—meaning that everything has to be fitted together to form a seamless unit. That is the goal; it is rarely met, but the very effort makes the majority of Broadway shows musically tiresome. "Integrated musical" is Broadway's term for it. I call it quack opera.

Golden Boy got mixed reviews upon its opening. I have no idea how good the show is visually, but I do know it is good musically. Charles Strouse has written what in many ways is the freshest score in some time. What's more, it is unmistakably American, drawing heavily on jazz for the flavor of its songs and the orchestrations, which are superb (Ralph Burns wrote them). The show does not use those marble-throated "legit"-trained singers who inject vigor mortis into the songs of most shows, but singers rooted in the feelings of popular music and jazz. I refer particularly to Billy Daniels and the brilliant Sammy Davis Jr., though the newcomer Paula Wayne is also very good. All of them understand the rhythmic subtleties, the plastic texture, of American music. Steve Lawrence was able to get a similar feeling into parts of the score of What Makes Sammy Run?, and one-time band-singer Art Lund did the same in The Most Happy Fella. Just using such people on Broadway is an advance. Thanks to Davis, Daniels, and Burns, the Golden Boy score has a quality I've never heard in any Broadway show album: it swings. And Golden Boy contains good songs, with good though too "poetic" lyrics by Lee Adams, including the title tune and Night Song, which unquestionably will become a major standard in our light music.

Golden Boy moves forward in time to the borders of jazz to achieve its musicality. Ben Franklin in Paris moves backward—and Bajour moves sideways, as it were, into another culture.

Little analysis need be given Ben Franklin, the plot of which centers on Ben's attempts to get French support for the young American nation. Mark Sandrich's music is froth-light, amusing, and when required, fairly sensitive. Sidney Michael's lyrics (he also wrote the book for the show) are craftsmanship, clean, witty, and at times quite fresh. Robert Preston's singing has the same kind of bumptious verve that made The Music Man score seem more exciting than it really was.

Bajour turns for inspiration to gypsy music (it deals with members of two gypsy tribes in New York) the way Fiddler on the Roof looked to Russian-Jewish tradition. Both are attempts to get freshness into a tired Broadway. Musically, Bajour is the more successful. Less "authentic" perhaps than the Fiddler score, it nonetheless contains better tunes. But it is uneven. Walter Marks' music and lyrics are sometimes quite clever—and sometimes self-consciously clever. And sometimes they are shopworn. On the one hand, there is Where Is the Tribe for Me, in which an ingénue anthropologist expresses an amusing hunger to find a tribe untouched by Margaret Mead or Albert Schweitzer. On the other hand, one of the show's love songs, Unser Liebesleid, is an uninspired tune built on a tired idea. After describing various symptoms (shivers and so forth) it continues, "chills or illness can't explain my plight.""Aside from the dubious taste of the word "illness," the song repeats an idea so long in use that Larry Hart saw fit to turn it around in the line "This can't be love because I feel so well...." The whole thing got laughed out of the theater—or so I had hoped—with You're Not Sick, You're Just in Love. (Some anonymous wit later suggested writing a tune called You're Not in Love, You're Just Sick.) Yet Mr. Marks falls back on this chestnut. Indeed, it seems to me that, like Jerry Bock and Sheldon Harnick, who wrote the Fiddler score and whose work Marks' otherwise resembles, he is not good at the direct expression of emotions or ideas, but can only handle them diagnostically through satire. Despite these reservations, I found charm in his Bajour score. But I liked Ben Franklin better, and Golden Boy better still. Maybe melody isn't gone forever from Broadway.

Gene Lees

Golden Boy (Charles Strouse-Lee Adams). Original-cast album. Sammy Davis Jr., Billy Daniels, Paula Wayne (vocals); orchestra and chorus. Golden Boy, While the City Sleeps; No More; and eleven others. Capitol SVAS 2124 $5.98, VAS 2124* $4.98.

Ben Franklin in Paris (Mark Sandrich Jr.-Sidney Michaels). Original-cast album. Robert Preston, Ulla Adams (vocals); orchestra and chorus. Golden Boy; While the City Sleeps; I Invented Myself; Half a Sixpence; and twelve others. Capitol SVAS 2191 $5.98, VAS 2191* $4.98.

Bajour (Walter Marks). Original-cast album. Chita Rivera, Nancy Dussault, Herschel Bernardi (vocals); orchestra and chorus. We Sail the Seas; I Invented Myself; Half the Battle; and twelve others. Columbia KOS 2700 $5.98, KOL 6900 $4.98.
cond. The Cat: Basin Street Blues; Chicago Serenade; Delon's Blues: and four others. Verve V 68187 $5.98, V 8587* $4.98.

Performance: Powerful but factitious
Recording: Brilliant clarity
Stereo Quality: Very good

Jimmy Smith, who usually treats the organ as if it were a piece of artillery, is heard here in a big-band setting with arrangements by Lalo Schifrin. The band, composed of crack New York studio men, is admirably proficient. The arrangements, however, are much like Smith's organ playing—they substitute power for imagination. There is no denying the kinetic thrust of this music, but the repetitiveness of Smith's ideas and the artificial excitement of Schifrin's scores enup being wearying rather than stimulating. The liner notes insist on awkward comparisons between Jimmy Smith and Paul Bunyan; a more accurate analogy might be between Smith and a neon-lit computer. N. H.

FOLK


Performance: In the tradition of folk:
Recording: Good

The almost too comprehensive booklet accompanying this disc tells us that Barbara Dane didn't always sing the kind of music she performs here, that she came to it gradually and after a few false starts. This is revealing, because Miss Dane is something of a cult-figure. She sings Negro blues, some well known, others not so well known, and she sings them like, if I may attempt to invent a category, a white Odetta. She sings with skill, with feeling, with commitment, and with a fine voice. But there is the feeling that she is trying very hard to be something she is not.

J. G.

RECORDING OF SPECIAL MERIT


Performance: Skilled minstrelsy
Recording: Superb

RECORDING OF SPECIAL MERIT


Performance: Absorbing story-telling
Recording: Excellent

These two additions to the definitive collection of Richard Dyer-Bennet's repertoire on his own label sustain the standards of superior musicianship and exemplary recording techniques set by previous releases in the collection.

“Hear me out. I'm the New Uher 4000-S. I'm the greatest little professional tape recorder in the whole wide world. There is no end to my versatility. I have traveled everywhere...from the top of Mt. Everest to the bottomless pits of Africa (take me anywhere, I weigh less than 9 lbs.). Here is just a resume of my most important features: (I hope I'm not going too fast for you).

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series. Dyer-Bennet's performances are characterized by an incisive sense of dramatic pacing, thoughtfully constructed guitar accompaniments, and an enlivening wit. He uses his voice with such control and sensitivity that he achieves a more subtle spectrum of dynamics and a more flexible melodic flow than do many of his contemporaries in the folk field.

Dyer-Bennet 12 is a collection of songs from England, Australia, and America. Most are familiar, but Dyer-Bennet transmutes them into his own conception of contemporary minstrelsy. He does not try for ethnic authenticity, but functions instead as a re-interpretation of folk material. Along with clancies and such vintage favorites as The Charleston Merchant and The Derby Ram, Dyer-Bennet includes his effective musical setting of Bret Harte's Truthful James.

Dyer-Bennet 13 contains four songs, but most of the record is devoted to the artist's spoken interpretations of four Russian folk tales from George and Helen Papashvily's book of Georgian tales, Yes and No Stories. He is an artfully simple tale-spinner, neither overdramatizing nor indulging in coyness, and always keeping the lines of suspense without any hint of patronizing of their sources. They obviously admire their models, and they show their respect by trying to approximate the spirit and ease of the originals. Although none of the Ramblers has a distinctive voice, each sings with knowledgeable verve in these idiom's, and they blend with tart drive. Along with novelty tunes, the program contains blues, rags, and an affecting cowboy ballad, Tom Sherman.

The New Lost City Ramblers approach this material with neither undue solemnity nor any hint of patronizing of their sources. They obviously admire their models, and they show their respect by trying to approximate the spirit and ease of the originals. Although none of the Ramblers has a distinctive voice, each sings with knowledgeable verve in these idiom's, and they blend with tart drive. Along with novelty tunes, the program contains blues, rags, and an affecting cowboy ballad, Tom Sherman.
Although Pete Seeger's huge repertoire goes far back in time and includes songs from many countries, he is particularly effective as a singer—and occasional writer—of topical American folk songs. In the first of these two new releases, "Broadside," Seeger is mainly concerned with "soft" polemics, songs that make their social points gently, although they often have a sardonic tinge. The lyrics, both those by the singer and by others, are not arrestingy fresh, but Seeger sings them with such conviction that they sound more substantial than they do when he records work as a whole. Seeger is most convincing in lyrical pieces, in songs with social conception and his capacity to identify fully with each of the subjects. The album is a valuable introduction for those new listeners to folk music who are aware only of such current topical writers as Bob Dylan and Phil Ochs. There is a strong, durable heritage of this broadside, and Pete Seeger—as he proves again here—has been intimately connected with the last quarter-century of that heritage.

"Songs of Struggle and Protest (1930-1950)" offers a much broader cross-section of socially engaged folk material. Many are familiar ("I Don't Want Your Millionaire Mess," "Talking Union," "Los Chantrel Generales," "The D-Day Dodgers," "Joe Hill," and Leadbelly's "Bourgeois Blues"). Somewhat less well known are the sardonic satiric "What a Friend We Have in Congress" (the music is "What a Friend We Have in Jesus"). Woody Guthrie's capsule analysis, "New York City," is a grim song about the murder of a union organizer by a Kentucky coal miner. For this collection, Seeger has chosen among the best of topical song-wiring during the past three decades, and he brings to this material his increasingly mature musical conception and his capacity to identify fully with each of the subjects. The album is a valuable introduction for those new listeners to folk music who are aware only of such current topical writers as Bob Dylan and Phil Ochs. There is a strong, durable heritage of this broadside, and Pete Seeger—as he proves again here—has been intimately connected with the last quarter-century of that heritage. N. H.
piece on a logger's discovery that he must educate himself to avoid being cheated at work, a lovely personalization of the British song 'The Water Is Wide', and a wittily dramatized 'Abe Yo-Yo', the fairy tale about the tricking of a giant. Also adding to the superiority of the Aravel set are Seeger's candid, unfailingly engaging spoken introductions.

N. H.

<NAME>: Lighthearted and Blue. Jean Shepard (vocals); unidentified accompaniment. Half a Mind; The Big Wheel; Just Call Me Lawrence; The Violet; a Rose; and a Remaining Eight others. CAPITOL ST 2187 $4.98. T 2187 $5.98.

Performance: Straightforward Recording: Good Stereo Quality: Good

A lot of country singers use tricks of one kind or another to put over their material, but Jean Shepard is not one of them. She uses a direct, straightforward approach to her songs, and it might be that she will someday inherit the audience of the late Patsy Cline.

Her newest disc could be called a program of classics. Many of the numbers here have passed into the standard country repertoire, and some of them are written by the leading singers in the field. Don Gibson, Lefty Frizzell, Marty Robbins. Included are I Can't Stop Loving You, Born to Lose, Loose Talk, and one of the best of all country songs, Fred Rose's Foggy River. There is also an amusing example of the way country composers can change anything into a love song—the piece called When Two Worlds Collide. Miss Shepard sings them all honestly and sweetly, over an uncredited Hollywood-Nashville background.

J. G.

FOLK COLLECTIONS

Carlos Chávez

Brilliant explorer of Mexico's music

This is the fourth album of Russian songs to be made by the Russian singer Yulya, now living in this country as Julie Whitney, the wife of foreign correspondent Thomas Whitney. She has a rich, dark, expressive voice, and sings to the accompaniment of guitar and mandolin. She is also a composer, and one song here is her setting of a poem by Yevtushenko.

Yulya uses overdubbing discreetly to sing with herself, but perhaps too often for the taste of some. Her repertory is varied, and she does it all with verse and feeling. She sounds more like a cafe entertainer than a folk performer—one can almost see the candlelight and vodka. English lyrics are printed on the back of this album, and an enclosed sheet contains Russian texts and transliterations.

J. G.
of these performers. For those looking for an introductory folk sampler, however, this set may be of some use.

The collection's primary assets are the wryly understated country singing of city-born Jack Elliott, the vivd Bluegrass music of the Geoff Bemby Boys, the tangy authenticity of Hedy West from the North Georgia hills, the rich, vibrant blues of Roosevelt Charles from Louisiana, the utterly authentic, unaccompanied Ozark balladry of Almaida Riddle, and the smooth but poignant white country blues of Doc Watson. Attractive but less penetrating are the high-spirited Canadian singers Ian and Sylvia, the softly eloquent Jackie Washington, the still unformed but arresting Eric Anderson, the mockingly romantic Jim Kweskin Jug Band, and the fervent Weavers.

There are various degrees of failure. Young John Hammond's attempt to find his musical identity in old Negroes blues remains thoroughly unconvincing. The Roof-top Singers are bright and slick but far too concerned with commercial effect, Mike Seeger is accurate though colorless in his singing—he is, however, a fine instrumentalist. Buffy Sainte-Marie is earnest but quite self-conscious, and the Clara Ward unit is represented by one of its most awkward gospels. The superb songs of the Spanish fandango form.

The performances by the Mexican Orchestra and Chorus conducted by Chavez are skillful, and the quality of recorded sound is equal to the multiple demands of the scoring. The price may be steep, but this Legacy production provides a useful and certainly a varied introduction to Mexican art and music.

THEATER

**ERIC BENTLEY**: **Songs of Hanns Eisler**
Eric Bentley (vocals, piano, harmonium). Price: Song: To the Little Radio; Supply & Demand; The Lost Market; and twenty-four others. FOLKWAYS FH 5435 $5.95.

**Theater**: Appropriate
**Recording**: Satisfactory

Among Eric Bentley's several accomplishments, such as the authorship of the recent and superb book *The Life of the Drama*, is the fact that he is the foremost prophetizer for Bertolt Brecht in this country. So, although this album is called "Songs of Hanns Eisler"—a German composer who suffered several setbacks, not the least of which was having the alleged Soviet agent Gerhard Eisler as a brother—it is safe to say that Bentley's primary interest in performing these songs is the lyrics, most of which are by Brecht.

Most of these are theater songs, and the typical Brechtian ironies are readily apparent: "There's nothing quite like money as an aphrodisiac." So are some less typical ironies: "Where are the snows of yesteryear?" "Where is the hero of my life?" "How is it possible to live and love and to live and love?"

The music is reminiscent of Kurt Weill, in a way that gives me the impression that both Eisler and Weill were writing in the cafe style of the day, and that the songs took their characteristic from the lyriques.

Mr. Bentley is by no means a professional entertainer, but he has a quality, a remarkable cross between gentility and commitment, that makes him pleasing to hear. And the lyrics are well worth anyone's attention.

F. G.

**THE RED BALLOON**

Adapted from the film by Albert Lamirosse. Jean Vallin (narrator); orchestra, Al Barr cond. NORTON F7 72001, H 2001* $2.50 (stereo and mono).

Performance: Charming
**Recording**: Silkety

Albert Lamorisse's color film of the friendship between Pasin, a lonely little boy in Paris, and a balloon with a singularly winning personality was one of the most subtly magical movies ever to conquer the heart of child and adult. A book made up of photographs taken during the production retained much of the charm of the original, but added a written text to explain the action:

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SPOKEN WORD

RECORDING OF SPECIAL MERIT

**BYRON**: Don Juan (Canto I and II).
Richard Johnson, Peggy Ashcroft, Janet Richer. George Rylands, director. ARGO RF 374 $4.98.

Performance: Dashing
Recording: Topnotch

When Byron finished the 198 stanzas that make up the first canto of Don Juan in 1818, he was not even sure he would sign his name to the work. Attacks came, as he had anticipated, but not on poetic grounds: the critics simply condemned the adventures of the libertine of Seville in Byron's version as patently immoral. It remained for Shelley in 1821 to enter an uplifting ""/"". It sets him not only above, but far above, all the poets of the day—every word is stamped with immorality.

To us a century and a half later, weaned as we were on brutality and a steady diet of literary description, the Don's daintiness is pretty tame stuff. The poetry, however, remains a heady brew, a remarkable mixture of the picaresque and the poetry, however, remains a heady brew, a remarkable mixture of the picaresque and the personal lyricism. When it is over, one wishes—as one seldom does after a long bout with the recorded word—that Johnson would turn the page to Canto Three and go right on.

**COYLE AND SHARPE**: The Insane Minds of Coyle and Sharpe. Jim Coyle and Mel Sharpe (performers). WARNER BROTHERS 1573 $3.98.

Performance: Abysmal
Recording: Windy

**BYRON**
His* Don Juan is perceptively read

*P. K.

PASCAL LA MOURISSE
A Red Balloon for the phonograph

fisherman on the Greek island where the hero is washed adrift. These events, and the details of the love affair he enjoys with the highly responsive Haidee "amidst the barren sand and rocks so rude" are recounted in an idiom saturated with wildly romantic imagery and atmosphere. Yet the poet also carefully documents the time, place, and weather of every scene, and uses meticulous description like an artfully aimed camera to bring action into focus. Mr. Johnson calls this scenario to life with a full appreciation of the wit, sensuality, and sagacity with which it abounds. When it is over, one wishes—as one seldom does after a long bout with the recorded word—that Johnson would turn the page to Canto Three and go right on.

**P. K.**
This sply named collection of phonv street interviews taped in San Francisco by a pair of crudников who style themselves the "greatest con men alive" is not a fount of amusement but of torture. Mr. Coley and Mr. Sharpe, who turned in an equally disabulal album some time ago, are out on the streets this time larcening supposedly gullible victims with such subornnoronic notions as selling packaged gems, attending a cannibal death ritual, asking permission to do a brain operation, ... Enough? Since the interviewees are obviously character actors, and unconscious ones at that, the only person really being conned is the listener. To make matters worse, Coley and Sharpe perform mindless little skits between excursions. There is a three-minute respite of something approaching a plausible hoax when the pair are introduced as ethnic performers from Bulgaria at a folk-singing festival on the University of California campus. The rest is painful going, augmented by the kind of blurry, headache-inducing sound you get from tape recorders left running on windy street corners.

P. K.

Dick Gregory: "So you see ... we all have problems." Colpix SCP 480 $5.98, CP 480 $4.98.

Performance: Shaky
Recording: Good
Stereo Quality: Pointless

Mr. Gregory's topical humor, aimed at the enemies of civil rights, suffers from the built-in disadvantage of being dated in many of its references before its words hit the market. On this occasion, they are also only fitly on target. I was interested in the news of a Hertz Rent-a-Negro service for cocktail parties given by white liberals, and the desecration of new Negro residents putting on the dog in a previously all-white neighborhood is top-drawer Gregory. But too much of the material sounds familiar—some of the jokes are actually warmed over from earlier recordings. As for the repetition of the catchphrase "So you see, we all have problems," it becomes downright depressing. Every barrel has its bottom, but surely a man of Gregory's cleverness does not need to stoop to this kind of appeal.

P. K.

Shakespeare: Romeo and Juliet (see Best of Month, page 72)


Performance: Virtuoso
Recording: Good

Anyone who undertakes a reading covering the entire gallery of Shakespeare's women from Cordelia to Cleopatra might be accused of many things, but never of cowardice. Miss Luce, moreover, did her own art work for the fancy album cover, and it was she as well who wrote the clever continuity for this two-hour tour de force. And as one who has played Cleopatra, Beatrice, and Viola at Stratford and Kate in the New York City Center's Taming of the Shrew, she does bring field experience to a somewhat cheeky undertaking.

This "concert reading" starts with The Tempest's Miranda. and thereafter proceeds to Lady Macbeth, Juliet, Olivia and Viola in Twelfth Night, Emilia in Othello, Imogene in Cynthia, Queen Margaret in Richard III, Beatrice in Measure for Measure, to Gvidessa, and then Cleopatra. After a brief intermission, during which it may be necessary for the listener to down a couple of aspirin or break the mood with a Beatles record, she returns as Adriana and Luciana in The Comedy of Errors, Titania in A Midsummer Night's Dream, all three of King Lear's daughters, Constance in King John, Kate in The Taming of the Shrew, and Helen in All's Well that Ends Well. Yeow!

I must say she acquires herself forgivably. True, some of her younger women seem almost unintentional caricatures—the dewiness of her Juliet and her Viola, and the lifting tone of her Titania sound more like take-offs than earnest portraits; she also brings little insight to the roles of Portia and Helena; her Cordelia is a fairly superficial try. But there are remarkable moments in other roles—in fact, the more difficult and complex the character, the more successful this actress is. Her Cleopatra, for example, is a fierce and fiery but witty woman, and the long passage in which the queen nearly murders a messenger for having the bad taste to deliver bad news brings the first record to a rousing end. Her Kate is colorful, vitriolic, and vital, her Constance affecting, her Rosalind—in the speech from As You Like It: that questions the whole concept of romantic love—persuasive. In sum, Miss Luce manages the brains of women better than the tender ones. Yet even in this category there are roles that are beyond her: a few harsh growls and a tense tone are not enough to evoke the power and terror of Lady Macbeth. But the actress is so game that questions of discipline or restraint. As a result, the notes on the album, which confines themselves to a terse description of each prototype, are funnier than the record inside.

P. K.
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RECORDING OF SPECIAL MERIT


Performance: Superb
Recording: Intimate
Stereo Quality: Fine

George Malcolm performs the first two of Bach's seven harpsichord concertos with stunning effect in this only tape issue of these works. His fingerwork is impeccably clear, and his interpretations are sensitive, sympathetic, and vital—and fortunately devoid of the eccentricities of registration change that are often heard on his recordings. Tempos in the fast movements, particularly the finales, are somewhat slower than one hears in other recordings, but the results make for a far more musical sense. Münchinger and a string complement of the correct size provide strong support, and the recorded sound, close-up for both solo instrument and orchestra, has a pleasant, intimate quality. At times, the harpsichord seems swallowed up by the greater volume of the accompaniment, but the balance nevertheless is most realistically accomplished. The disc version (London 6392, 9392) is an example of modern recording at its best; except for a slightly more natural harpsichord tone, the tape version is not noticeably superior—both are examples of first-rate reproduction. There is a very slight pre-echo at the start of each of the concertos, but this does not seriously mar the release. All told, these performances can be recommended as among the very best available. I. K.

BEETHOVEN: Wellington's Victory, Op. 91 (see TCHAIKOVSKY)


Performance: Debatable
Recording: Brilliant
Stereo Quality: Outstanding

To a prospective buyer of Carmen on tape—a buyer dubious about the engineering on the splendid De los Angeles-Beecham recording for Angel (ZC 3613), which after all dates back to the late Fifties, or one unconvinced of the vocal promise held out by Regina Resnik's recent performance for London (LDR 90070)—this release might seem to be the logical answer. Certainly a Carmen sung by Leontyne Price should prove to be a pretty exciting affair. And that same Carmen conducted by Herbert von Karajan, recorded in Vienna under the most favorable circumstances, could even verge on greatness. The sad fact is that it does not, that coming to it with the highest hopes and the greatest anticipation (as I did), one is bound to be disappointed.

Much has been said and written to the credit of this performance. In several quartets it has been hailed, with some reservations, as the best Carmen of them all. But my own reservations appear to outweigh a great many of the good things I can think of to say about it.

Foremost among the latter is the sense of excitement it does indeed deliver (despite generally slow tempos) in much of the singing and in the freshness and realism Karajan brings to a well-worn if sturdy score. Technically, the recording cannot be faulted: it really sounds great, especially on tape. Orchestral timbres are well defined and marvelously balanced, the solo voices are nearly always in proper focus, and the big ensembles in the first and fourth acts are truly stunning.

At the top of my list of complaints is the quality of the French one hears sung by virtually all of the principals, ranging from barely passable to painfully bad. So bad is it most of the time that anyone who is at all familiar with the language will find his appreciation of the performance considerably soured. The worst offender is Franco Corelli, who as Don José otherwise sings quite gloriously and without his usual excesses. He clearly knows what he is singing about, but

Explanation of symbols:

0 = stereophonic recording
0 = monophonic recording

STEREO TAPE

Reviewed by CHRISTIE BARTER • DAVID HALL • IGOR KIPNIS
and unnecessarily resorts to guttural vulgarities of tone. She betrays the fact that she still has some thinking to do about the character itself.

The transfer to tape is marred only by a bad break between sequences on the first reel. It occurs at a particularly awkward moment in Zuniga’s brief questioning scene leading into the Sorridilla, where a cut only a minute or two earlier (or later) would have been more appropriate. Notes and libretto contained in the handsome folio gotten up by the Sorias for the disc release are available free of charge upon request. C. B.

DUKAS: The Sorcerer’s Apprentice (see RAVEL)

HONEGGER: Pacific 231 (see RAVEL)

RECORDING OF SPECIAL MERIT

MAHLER: Symphony No. 2, in C Minor (“Resurrection”), Jennie Tourel (mezzo-soprano); Lee Venora (soprano); Collegiate Chorale, New York Philharmonic, Leonard Bernstein cond. COLUMBIA M2Q 604 $11.95.

Performance: Stunningly dramatic
Stereo Quality: The best

All of the laudatory comments that I made about the disc version of this superior performance in the January issue of this magazine receive renewed validation on the evidence of this fine tape processing. It is the awesome finale, with its fresco-like unfolding of Mahler’s vision of Judgment Day and the final resurrection, that gains most through transfer to tape medium, for the chorus, soloists, augmented orchestra, and organ in the final pages come through in all their blinding splendor, unmarred by the inevitable tracking distortion imposed by the physical limitations of discs. And it is good also to be able to experience the hour-and-a-quarter span of this music with but one interruption for turn-over, as against two for the disc version (the fourth side of the disc offers Mahler’s Kindertanenlieder sung by Mme. Tourel with Bernstein and the New York Philharmonic).

On a rival Angel tape, Otto Klemperer, the Philharmonia Orchestra, chorus, and soloists offer substantial musical competition for Bernstein and his forces, but Klemperer’s noble reading fails to convey the nervous energy inherent in the music to the same extent as Bernstein’s. Considering, too, that the Columbia tape is four dollars cheaper. Ansermet brings to the much-abused...
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HIFI/Stereo Review
Some plain talk from Kodak about tape:

Sensitivity and frequency response

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Sensitivity means the degree of output for a given input. We put in a 400-cycle signal and measure the output. The result: low-frequency sensitivity. We choose 400 cycles for a number of good reasons. A 400-cycle note recorded at 15 inches-per-second gives us a wavelength that the tape “sees” of roughly .0375 inches, and by a happy coincidence this wave length penetrates the entire depth of the oxide coating, but not the support material. Everything else being equal, low-frequency response is a function of the thickness of the coating. The thicker the coating, the better the bass response. We test at a frequency that penetrates the entire coating. We choose 400 cycles instead of, let’s say, 20 cycles because the 400-cycle note tells us just as much—and has an added advantage. An engineer can hear 400 cycles, so we have audio monitoring as well as instrumented observation on a scope face.

Just as the low-frequency sensitivity test gives us an idea about oxide thickness, the high-frequency test gives us a fairly accurate picture as to how smooth the surface of the tape is. Good high-frequency response is impossible on a tape having a rough surface. Here’s why: The low points will represent gaps in the oxide and cause a loss of H.F. response. We test our high-frequency sensitivity at 15,000 cycles. (Inches-per-second divided by cycles-per-second gives us recorded wavelength.) So at 15 ips the arithmetic looks like this:

At this high frequency (short wavelength) we are recording only on the surface of the tape. If any roughness is present, big troubles result. If you have a surface condition where the amplitude of the roughness is just .0001 inches and your recorded signal has a 1-mil wavelength, you will lose 5.5 db in high-frequency response! Let’s rephrase the catastrophe. It takes a surface variation of just one tenth the wavelength to knock down response by about 6 db. And this can happen at any frequency!

We are working toward making a point: KODAK Sound Recording Tape has a surface that is unsurpassed in smoothness, a surface that varies no more than 25-50 millionths of an inch from a theoretically perfect plane.

Frequency response is merely the arithmetic subtraction of high-frequency sensitivity from low-frequency sensitivity. Ideally the response is zero. It’s quite an easy matter to juggle the characteristics of an oxide around so that frequency response is nice and flat. For instance, if your oxide has poor high-frequency sensitivity, you can reduce the thickness of the oxide layer. This will degrade L.F. sensitivity, and thus effect a flat response. But is the resulting L.F. loss worth it? We don’t think so. That’s why we designed our coating to give us superior low- and high-frequency sensitivities, as well as a nice flat response.

Next time we’ll chat about a few other basic considerations.

Choose KODAK Sound Recording Tape, Type 31A, for all general-purpose and low-print applications. Or Type 34A whenever you need high-output or low-noise characteristics. For extended playing times try our extra- or double-play tapes...or try the new triple-play tape—so thin you get 3600 feet on a 7-inch reel. KODAK Sound Recording Tapes are available at electronic supply stores, camera shops, specialty shops, department stores...everywhere.

EASTMAN KODAK COMPANY, Rochester, N. Y.

MARCH 1965

CIRCLE NO. 24 ON READER SERVICE CARD
Who says a professional-grade, ribbon-type mike has to cost a small fortune?

Most audio engineers agree that microphones with ribbon-type generating elements give the best acoustic performance obtainable...the smoothest, most distortion-free response over the broadest frequency range.

Most ribbon-type mikes are therefore quite expensive...up in the hundreds of dollars.

But not the RCA SK-46. It gives you a frequency-response of 40 to 15,000 cps

...and it costs only $49.50*.

What's so special about ribbon-type mikes?

There are 7 basic types of microphone generating elements: ribbon, condenser, magnetic, dynamic, ceramic, crystal and carbon. RCA sells all 7, so we can be relatively impartial about the advantages of the ribbon type.

A typical ribbon element (special aluminum alloy foil 0.0001" thick) weighs only about 0.25 milligram—a hundred times lighter than generating elements in, say, dynamic and condenser mikes. The ribbon, in fact, is as light as the air mass that moves it, which accounts for its exceptional sensitivity.

In fact, of all 7 types of generating elements, the ribbon-type element is superior in:

- Smoothness of response
- Breadth of frequency range
- Immunity to shock and vibration
- Adaptability to various impedances

But now you can get the remarkable RCA SK-46 bi-directional ribbon-type mike at Your Local Authorized RCA Microphone Distributor—For Only $49.50*.

For full technical information— or the name and address of your nearest distributor—write: RCA Electronic Components and Devices, Dept. 451, 415 So. 5th St., Harrison, New Jersey.

*Optional Distributor Resale Price

RCA The Most Trusted Name in Electronics
it is lacking the varied perspective that one experiences in the opera house, particularly in the kidnapping scene with its "Zitti, zitti" chorus, the final encounter of Rigoletto and Monterone as the latter is taken to prison, and the whole of the final act with its action and around Sparafucile’s inn. I would have liked more effective exploitation of stereo directionality and perspective—perhaps even some tasteful exaggeration on occasion. Lastly, it seems to me that the humming chorus that Verdi scored into the storm scene as wind sound-effect is much too much in the “sound picture” to achieve a properly eerie effect. 

One inexcusable editorial gaffe in the finished recording is the first side-break, which interrupts the musical flow of the Rigoletto-Gilda duet at the point where the Duke is first heard stealing into Rigoletto’s house. Surely, on the tape at least, the extra three minutes needed to conclude the scene could have been added to the first sequence. Metropolitan Opera fans will undoubtedly enjoy this recorded performance, since it shows Merrill and Moffo to fine advantage. But we must wait for some other recorded Rigoletto to combine the full potentialities of stereo with the drama of Toscanini’s great mono recording of the final act and the musicality of Merrill and Bioerling in the 1957 RCA Victor recording—or of Callas and Gobbi in the 1956 Angel album. D. H.
HI FI/STEREO REVIEW CLASSIFIED

COMMERCIAL RATE: For firms or individuals offering commercial products or services. 50c per word (including name and address). Minimum order $5.00. Payment must accompany copy except when ads are placed by accredited advertising agencies. Frequency discount: 5% for 6 months; 10% for 12 months paid in advance.

READER RATE: For individuals with a personal item to buy or sell, 30c per word (including name and address). No Minimum! Payment must accompany copy.

GENERAL RATE: 75c per word on all ads under 100 words. Additional word may be set at 10c per extra word. All copy subject to publisher's approval. Closing Date: 1st of the 2nd preceding month (for example, March issue closes January 1st). Send order and remittance to: Hal Cymes, HI FI/STEREO REVIEW  One Park Avenue, New York, New York 10016.

EQUIPMENT

LOW, LOW quotes: all components and recorders. HI-Fi, Roslyn 9, Penna.

WRITE for quotation on any Hi Fi components: Sound Production Inc., 34 New St., Newark, N.J. Mitchell 2-6816.

BEFORE You Buy Receiving Tubes, Test Equipment, Hi-Fi Components, Kits, Parts, etc., send for your Grant Free Zalvron Current Catalog, featuring Standard Brand Tubes: ROC, GE, etc.—all Brand New Premium Quality individually boxed, One Year Guarantee—all at Biggest Discounts in America! We serve professional service men, hobbyists, experimenters, engineers, technicians. Why Pay More? Zalvron Tube Corp., 46-H Jericho Turnpike, Mineola, N.Y.

REVIEW One Park Avenue, New York, New York 10016.

GENERAL INFORMATION: First word in all ads set in bold caps at no extra charge. Additional words may be set in bold caps at 100c extra per word. All copy subject to publisher's approval.

COMMERCIAL RATE: For firms or individuals offering commercial products or services. 50c per word, including name and address. Minimum order $5.00. Payment must accompany copy except when ads are placed by accredited advertising agencies. Frequency discount: 5% for 6 months; 10% for 12 months paid in advance.

BEFORE renting Stereo Tapes try us. Postpaid both ways—no deposit—delivery direct. Quality—dependability—service—satisfaction—prevail here. If you've been dissatisfied in the past, you initial order will prove this is no idle boast. Free catalog. Gold Coast Tape Library, Box 2262, Palm Village Station, Hialeah, Fla. 33012.


STEREO TAPE. Save up to 60% (no membership fees). We discount recorders, batteries, accessories. We mail prerecorded tape, prepaid, anywhere that United States rates prevail. Free 50 page catalog. Saxitone, 1776 Columbia Road, Washington, D.C. 20009.

TAPE RECODER Bargains, Brand new, latest models, $10.00 above cost. Arkay Sales, 22-01 Riverside Ave., Medford, Mass. 02155.

"MY FAIR TUBES." "HELLO, DOLLY," many other stereo and monoaural tapes at 50% off retail price. 25c puts you on lifetime mailing list. Toposco, 320 N. Michigan Ave., Chicago, Ill. 60601.

ANNIVERSARY Special $5.00 of free stereo tapes! Buy a tape this month! Be eligible for prize Ron's Stereo Tape Club, 449 E. 7th, Red Wing, Minn. 55066

SAVE UP TO 30%—Stereo Tapes! Records! All Major Labels—Guaranteed. Full Details. P.O. Box 280, West Des Moines, Iowa 50265.


EDUCATIONAL recordings, satellite sound effects. Free catalog. Soundtage, Box 176, Levittown, New York 11756.

AMERICA's lowest stereo tape prices from America's leading outlet. No membership fees, no club plans. Fred particulars. Roberts Recordings, 3592 Milwaukee Ave., Chicago, Ill. 60641.

REPAIRS AND SERVICES

ALL Makes of Hi-Fi Speakers Repaired. Amplitone, 168 W. 23rd St., N.Y.C. 10011. CH 3-8412.


TV TUNERS Rebuilt and Adjusted per manufacturers specification only $9.50. Any Make UHF or VHF. We ship COD Ninety day written guarantee. Ship complete with tubes or write for mailing kit and dealer brochure. JW Electronics, Box 51F, Bloomington, Ind.

PATENTS

INVENTIONS; Ideas developed for Cash/Royalty sales. Raymond Lee, 16066 Bush Building, New York City 36.

RENT 4-TRACK STEREOTAPES—Narrow it down, it has to be TRIMOR—Goodbye to partial satisfaction—Service and Dependability our keynotes—ALL LABELS and Routes—No Deposit—Delivered direct. Quality—dependability—Service—Satisfaction—prevail here. If you've been dissatisfied in the past, your initial order will prove this is no idle boast. Free catalog. Gold Coast Tape Library, Box 2262, Palm Village Station, Hialeah, Fla. 33012.

PLANS AND KITS

WEBBER Labs. Transistorized converter Kit complete with 50 feet cable. Two speakers, solder, switch, wire and amplifier board. Just $4.95, include postage. General Surplus Sales, 10 Alice St., Binghamton, New York. Draggs include.

TAPE AND RECORDER

RENT Stereo Tapes—over 2,500 different—all major labels—free brochure. Stereo Parts, 1618 G Terrace Way, Santa Rosa, California.

TAPE-MATES MAKES AVAILABLE TO YOU—ALL 4-TRACK STEREOTAPES—ALL LABELS—POSTPAID TO YOUR DOOR. At Wholesale Prices. FOR FREE BROCHURE WRITE TAPE-MATES CLUB, 520 N. W. PICO BLVD., LOS ANGELES, CALIF. 90019.

AMPEX tape at discount. Write Collegiate Audio, Box 342, Columbia, Missouri 65201.

ACHTUNG! Das maschine Is nicht fur Gerlingigen-pokern und mittelgaren. Es ist schnell den Springen-werk, blowen-wurfen und poppen-wurfen mit spitzern-parken ist nach dem nettstokk mit dem Dummkopf-wurfen. Das rubbernecken sightraumen hecken in das pockets. Relaxen und watch the Blinkenlights. This attractive, enginised gold only $2.00 ex. Southwest Agents, Dept. H, Box 12283, Fort Worth, Texas 76116.

USED University Trimmension Speaker System, 755 plus shipping, E. Smith, 2708 Pine Valley, Albany, Georgia.

RESTITORS, Newest type Metal-Film, Copper Circuit Board, Capacitors, Terminal Blocks, Free Catalog. Farnsworth Electronic Components, 88 Berkeley, Rox-ester, New York 10016.

FREE catalog: Wholesale electronic parts and equipment. Western Components, Box 2581, El Cajon, Calif.

TUBES

RADIO & TV. Tapes—33c each. Send for free list. Cornell, 4215-H University, San Diego, Calif. 92115.

RECORDS

BARE 78's. State Category. Write Record-List, P.O. Box 2122. Riverside, California.

"HARD TO GET" records—all speeds. Record Exchange, 812 Seventh Avenue, New York, N.Y.

The Record Collector Journal—comprehensive, valuable data, varied record mart. Introductory six issues $1.50. Record Research, 1311 Mart, Brooklyn 6, N.Y.


DISCOUNT Records—All Labels—Free lists, write Cliff House, Box 42-H, Utica, N.Y.


SAVE 60% Like New LP's. Tops, Labels 25c. Records, Hillburn P.O., Hillburn, N.Y.


FREE The 500 Most Record-Order Catalog Available. Hundreds of bargain LP's. The Record Center, Dept. JHSR, 821 Broadway, New York 14607.

POLAR Index to Record Reviews—Covers leading music/audio publications including HI-FI/STEREO REVIEW. 1964 edition now ready. $1.50 paid post. 20115 Goulburn, Detroit, Mich. 48205.

FREE Catalogs Broadcasts, Sound-Tracks of Thirties. ARG, 341 Cooper Station, N.Y. 10003.

COMPLETE Custom Recording—Service—monaural, stereo, tapes, discs—all speeds. Send your requirements for very reasonable quotations. Son-Deane Records, 821 Seventh Ave., New York 14607.


LP's ALL LABELS, in like new condition. Prices from $1.50 to $1.75. For catalog 25c to KRAUS, BOX 601, WAYNE, NEW JERSEY 48184.

PATENTS

INVENTIONS; Ideas developed for Cash/Royalty sales. Raymond Lee, 16066 Bush Building, New York City 36.
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NATURAL SOUND BEGINS WITH PICKERING

Whether you own a record changer, automatic turntable, or a professional type manual turntable, Pickering has engineered the RIGHT V-15 pickup for you. Each of these applications requires a cartridge with specific characteristics and specifications to produce the maximum in NATURAL SOUND that is possible from the record playing equipment and other components in your system.

If it's RECORD CHANGER application, where high output and heavier tracking forces are required, try the V-15 AC-1. Most of you, no doubt are tracking lighter on the late model AUTOMATIC TURNTABLES and will use the V-15 AT-1. Or if a professional type MANUAL TURNTABLE is your choice you'll need the even more compliant V-15 AM-1. And if it's unexcelled tracking ability you're seeking, you will demand the ELLIPTICAL STYLUS PICKUP V-15 AME-1. All of these pickups are radically different from any other cartridge. You can see the difference. You can hear the difference. Pick up a V-15. Note its light weight—only 5 grams. Perfect for low mass tone arm systems. Now, see how Pickering's exclusive "Floating Stylus" and patented replaceable V-Guard assembly protects your record and diamond as it plays.

FOR THOSE WHO CAN HEAR THE DIFFERENCE

THE WORLD'S LARGEST AND MOST EXPERIENCED MANUFACTURER OF MAGNETIC PICKUPS

CIRCLE NO. 43 ON READER SERVICE CARD
For Tough Jobs Choose
The Only
Microphone
With Backbone!

The backbone of the Electro-Voice Model 676 is no mere decoration. It's visible proof of the most exciting idea in directional microphones—Continuously Variable-D (CV-D)™.

Here's how it works. We attach a very special tapered tube to the back of the microphone element. This tube automatically varies in effective acoustic length with frequency. It's a long tube for lows—a short tube for highs. All this with no moving parts! The tube is always optimum length to most effectively cancel sound arriving from the back of the microphone, regardless of frequency.

This ingenious solution* is years ahead of the common fixed-path designs found in most cardioid microphones. The 676 offers significantly smoother response at every point—on or off axis—plus more uniform cancellation to the rear. It is also less sensitive to wind and shock. There is almost no “proximity effect”... no boosted bass when performers work extra close.

Long life and smooth response are guaranteed by the exclusive E-V Acoustalloy® Diaphragm. And the 676 has unusually high output for a microphone so small. Of course you get dual output impedances, high efficiency dust and magnetic filters—all of the hallmarks of Electro-Voice design that have made E-V a leader for years.

But that's not all. The 676 has an exclusive bass control switch built in. Choose flat response (from 40 to 15,000 cps) or tilt off the bass 5 or 10 db at 100 cps to control reverberation, reduce low frequency feedback and room rumble.

Write today for complete specifications, or visit your E-V sound specialist's to see this remarkable new microphone. And when difficult sound problems must be faced squarely, stand up and fight back with the microphone with a backbone (and CV-D) — the new Electro-Voice 676 dynamic cardioid!

Model 676 Satin Chrome or TV Grey, $100.00 list; in Gold, $110.00 list. Shown on Model 420 Desk Stand, $20.00 List. (Less normal trade discounts.)

ELECTRO-VOICE, INC.
Dept. 355F, Buchanan, Michigan 49107

CIRCLE NO. 26 ON READER SERVICE CARD

*Pat. No. 3,111,207

ELECTRO-VOICE
MODEL 676
DYNAMIC CARDIOID