



CREATIVE



RADIO & TV RECORDING MUSIC



BUSINESS

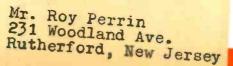
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LANGUAGE LEARNING

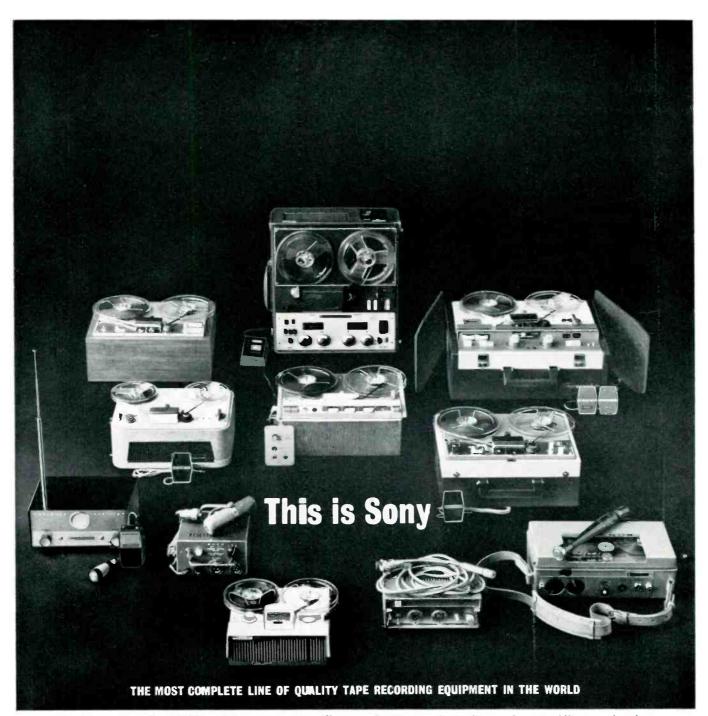
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FOR YOUR AUDIO BOOKSHELF

HOW TO GET THE MOST OUT OF TAPE RECORDING

by Lee Sheridan

This book is aimed at the new recordist, who has yet to discover the hundred and one unusual, interesting and profitable uses to which a tape recorder can be put . . . with patience, a little imagination, and a few accessories.

Lee Sheridan, who authored this book, is actually two people: Elsie Lee and Michael Sheridan, who comprise one of the most prolific and successful freelance writing teams in the country. They have appeared, with articles and short stories, in many magazines both here and abroad.

6" x 9", 128 pp., paper bound, illustrated \$1,00

HIGH FIDELITY SIMPLIFIED

by Harold D Weiler

This book has sold more than 65.000 copies and is one of the most popular books on the subject. It covers the How, What, Why and Where of Hi-Fi, Sound, Acoustics. The Simple Loudspeaker. The High-Fidelity Loudspeaker Loudspeaker-Enclosures, The Basic Amplifier, The Amplifier, The Record Player, Tuners, Use of a Home Music System, and Tape Recorders. It is illustrated with numerous drawings, charts and pictures. While authoritative, it is written in an easy-to-read style.

51/2" x 81/2", paper bound, 208 pp. Illustrated ... \$3.30

TECHNIQUES OF MAGNETIC RECORDING

by Joel Tall

This book translates the complexities of a science into practical, easy-to-follow techniques It is a book for the professional who wants new ideas, new standards of excellence, and a book for the amateur just introduced to magnetic recording, Beginning with a description of Poulsen's invention of magnetic recording, the author presents a condensed history of developments since 1900. Then he treats the many problems that arise in magnetic recording. Individual chapters are devoted to recording in such areas as medicine, education, and public entertainment and advertising. The inclusion of descriptions written by the originators of various techniques, extensive quotation from the laboratory notes of pioneers, an extensive glossary, and a comprehensive bibliography make this book invaluable to the amateur and to the professional

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TAPE RECORDERS AND TAPE RECORDING

by Harold D. Weiler

The latest book by the well known author of "Hi-Fi Simplified" which has sold over 65,0.0 copic . Written so that anyone can understand it the book covers Room Acoustics; Microphone Techniques; Recording From Records: Radio and TV; Sound Effects; Tape Recorder Maintenance; and Adding Sound to Slides and Movies. Over 100 illustrations and diagrams in 13 chapters of practical down-to-earth suggestions make this book the beginners bible.

51/2" x 81/4" --- 190 pages --illustrated --- paper bound \$2.95

HOW TO MAKE GOOD TAPE RECORDINGS

by C. J. Le Bel, Vice President Audio Devices, Inc. A complete handbook of tape recording containing 150 pages of up-to-the-minute information of practical value to every tape recordist. Easy reading for the most inexperienced of home recordists.

home recordists. Sections include: How A Tape Recorder Works, Characteristics of a Tape Recorder, Selecting A Tape Recorder, Selecting A Recording Tape. Using the Tape Recorder Making A Microphone Recording, Acoustically Treating the Studio Tape Eding, Binaural or Stereophonic Recording, Putting Together A Recording Show, and a Glossary of Tape Recording Terms. $5^{1/4}$ x 8", 150 pp., paper bound. \$1.50 illustrated

TAPE RECORDERS-HOW THEY WORK

by Charles G. Westcott and Richard F. Dubbe This book is based on the principle that to get the most from a recorder, one must first understand thoroughly how it op-erates. It contains diagrams and schematics and explains in not too technical language "what's under the cover" of a recorder.

51/2" x 81/2", 177 pp., paper bound, illustrated\$2.75

BASIC ELECTRICITY

by Van Valkenburgh, Nooger and Neville, Inc. Vol. 1—Where Electricity Comes From. Electricity in Ac-tion, Current Flow, Voltage and Resistance, Magnetism DC Meters. Vol. 2—DC Circuits. Ohm's and Kirchoff's Laws, Electric Power. Vol. 3—Alternating Current. AC Resistance, Capacitance and Inductance, Reactance. AC Meters. Vol. 4— Impedance, AC Circuits, Resonance, Transformers. Vol. 5— DC Generators and Motors, Alternators.

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BOOK DEPARTMENT	📑 Tape Recorders and Tape Recording
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The Tape Fun Kit is composed of whimsical, hilarity provoking, laughfilled skits, all of which are designed primarily for fun—and lots of it. Each skit is short and each has a script for every character called for.

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TAPE RECORDING

Severna Park, Maryland

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City Zone	State

TAPE RECORDING

VOL. 9 No. 7

JUNE 1962

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TAPEBOOKS AND OTHER TAPES

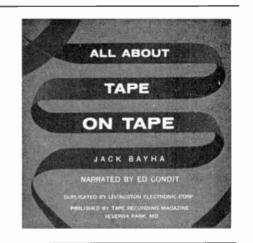
ALL ABOUT TAPE-ON TAPE

Will give you the information you need about tape recording in sound, not in the written word.

. . . authored by Jack Bayha . . . a book to which you listen . . . the first book specifically designed and produced on tape instead of the printed page. . . . Now you can actually HEAR what good recording, overrecording, wow, flutter, distortion, wrong mike placement, etc., sound like. A test section allows you to adjust the head of your recorder for best results. Chapters include: How

a Tape Recorder Works, A Demonstrated Glossary, Recorder Operation, Home Recording, Field Record-ing, Low Impedance, Microphones, Recorder Maintenance and Testing. ... Playing time of the Tapebook is one hour. Accompanying each reel is a 28 page booklet containing 80 illustrations to supplement the spoken word. It is unique, enjoyable and instructive.

7½ IPS, 7" Reel, Dual Track \$6.95 3¾ IPS. 5" Reel, Dual Track \$5.95 Including a 28 page manual of illustrations



HOW TO STAY ALIVE ON THE HIGHWAY

This tape may save your life. Contains the actual voices of nearly 40 auto drivers, victims and survivors of highway accidents, police and traffic officials. Portions were secretly recorded in court rooms, on the highway and in police stations over a period of three years. A must for driver education programs. Dramatic, forceful-something you won't forget. \$695

ADD-THE-MELODY TAPE

Twelve old favorite tunes for you to sing along with. Specially recorded with the melody missing so you can sing or play with the tape then, on playback hear both parts together. Suitable for use on any recorder with the ability to play the lower track while recording on the upper. Can be recorded again and again without harm to the Hammond Organ accompaniment by Hack Swain. You can get a \$095 million dollars worth of pleasure from this tape.

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Mongural Music

3" reels, 3¾ ips, full track

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- 1—Cha Cha Cha—Tito Puente—Oye Me Mama, Sope de Pinchon, El Miche
- 2—Dinner-Dance Fred Martin Radio Orchestra Let's Dance, Somewhere over the Rainbow. Women are No Angels
- 3-Jazz-Dickie Thompson Quartet-Love for Sale,
- Blues in My Heart Jazz—Dickie Thompson Quartet—Laura—What is This Thing Called Love -Jazz-Dickie Thompson Quartet-Misty, Satin Doll
- 6—Dinner-Dance—Jose Melis—Tonight, Am I Blue, White Cliffs of Dover
- 7—Dinner-Dance Fred Martin Radio Orchestra Flamingo, Song of India, Symphony 8-Dinner-Dance - Fred Martin Radio Orchestra -
- I've Got Plenty of Nothin', Ebbtide, Autumn Leaves 9—Dinner-Dance — Fred Martin Radio Orchestra — Fiddle Faddle, Blue Tango, Serenata
- 10-Hammond Organ-Bill Thompson-Touch of Your Hand, I Won't Dance, Smoke Gets in Your Eyes

05101 BIRTHPLACE OF LIBERTY LACE Q

BOSTON

A full 57 minute tour of one of America's most famous and historic cities. You visit in sound Boston Common, the Park Street Church, Kings Chapel, Old South Meeting and Faneuil Hall, the Cradle of Liberty. Hear the worship service at Old North Church in the belfry of which Paul Revere hung his famous lanterns and also hear the Vicar of Old North tell about the clear glass windows, kept clean so your forebearers could see the need outside, as well as the beauty inside. Every sound, every voice is authentic. Dual track, 7!/2 ips. \$595

HOW'S YOUR HEARING?

Periodic hearing tests are important because unlike most other ailments, a hearing loss gives little positive warning. Tape contains 33 tone pairs to test your musical discrimination, 75 word pairs to test speech discrimination and 30 minutes of music by the famous Lenny Herman orchestra for screen testing of hearing. Full 7" reel, 7½ ips and bocklet giving full directions for use of the tape.

\$995

TAPEBOOK DEPARTMENT TAPE RECORDING MAGAZINE Severna Park. Md.

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NEW TAPES

CLASSICAL

Reviewed by Robert E. Benson No. 5 Music



obert E. Benson No. 5 Music ★★★ Performance ★★★ Fidelity ★★★ Stereo Effect ★★★ No. 2 Music ★★★★ Performance ★ Fidelity ★

+-Fair

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Stereo Effect

DVORAK: Symphony No. 5 in E Minor, Op. 59 "From the New World"

Symphony No. 2 in D Minor, Op. 70 Vienna Philharmonic Orchestra conducted by Rafael Kubelik LONDON LCK 80008

4 track, 71/2 ips

\$11.95....79 min.

This tape contains the equivalent of two stereodiscs. The familiar "New World" receives a fine, idiomatic performance under Kubelik's knowing baton, and the orchestral playing is of a high order. This Symphony is recorded in adequate, if not outstanding, stereophonic sound, with spread and separation, but, unfortunately, very little hall reverberation.

The Symphony No. 2 is a sunny, unjustlyneglected work, with a superb Scherzo and exhilarating Finale. How Kubelik could conduct such a worthy "New World" and then do this to his countryman's Symphony No. 2 is a mystery. The performance here is listless, and the sound far from London's usual high quality. An unfortunate coupling.



Music ★★★★ Performance ★★★★ Fidelity ★★★★ Stereo Effect★★★★

"FESTIVAL" Colas Bruegnon Overture (Kabalevsky); March Slave (Tchaikovsky); Polovski March (Borodin); Night on Bare Mountain (Moussorgsky); Marche Miniature (Tchaikovsky); Russlan and Ludmilla Overture (Glinka)

Chicago Symphony Orchestra conducted by Fritz Reiner

RCA FTC 2037

4-track, 71/2 ips

A grab bag of highly-colored Russian works. Best of the lot is the Night on Bare Mountain. which is positively stunning.

Never before have I heard a recorded performance of this music to match the dynamic excitement of this new tape. Reiner apparently has added extra cymbals here and there, which makes this vivid score even more scintillating. It is difficult to understand why Reiner, who goes all out on *Bare Mountain*, holds back on *March Slave*, which sounds ponderously dull in the plodding tempo chosen here. Throughout, orchestral performances are of the highest calibre.

★★★—Very Good

\star 🛨 — Good

Sonically, this tape is magnificent, with enormous spread, clean transients and some extraordinarily heavy bass, impressive on equipment that can handle it.



TCHAIKOVSKY: Symphony No. 6 in B Minor, Op. 74 "Pathetique"

Vienna State Opera Orchestra conducted by Vladimir Golschmann VANGUARD VTC 1613

Perfunctory interpretation by Vladimir Golschmann, and orchestral playing showing evidence of lack of rehearsal, particularly in the third movement. The orchestra sounds rather small, but the sound is very good big and rich.

There still is no really good stereo tape of this most popular of all symphonies, all versions suffering either from interpretative, orchestral performance, or sonic defects. The present tape will suffice until such time as we have a truly top-notch *Pathetique*.



Music ★★★ Fidelity ★★★ Performance ★★★ Fidelity ★★★★

VILLA-LOBOS: The Little Train of the Caipira GINASTERA: Estancia and Panambi Ballet Suites

London Symphony Orchestra conducted by Sir Eugene Goossens

EVEREST T4-3041 4 track, 7¹/₂ ips \$7.95 ... 30 min,

The colorful Little Train of the Caipira from Villa-Lobos' Bachianas Brasileiras No. 2 is brautifully conveyed on this tape, with the heavy percussion section of the orchestra recorded in vividly effective stereo. Ginastera's two ballet suites are brilliantly scored, but not of particular interest musically. The dance sections are compelling in their rhythmic intensity, but say very little. I personally find the quieter episodes more lasting in their appeal.

A superb tape technically, with no difference whatever in quality between the twotrack and four-track versions, except, of course, the price. Music *** Performance *** Fidelity *** Stereo Effect ***

★★★★—Excellent

SHOSTAKOVITCH: Symphony No. 6, Op. 54 London Philharmonic Orchestra conducted by Sir Adrian Boult
EVEREST T4-3007
4 track, 71/2 ips
\$7.95....33 min.

Everest is to be congratulated for recording seldom-heard music such as Shostakovitch's *Symphony No.* 6 has only three movements—a long, slow first movement, a dazzling Scherzo for the second movement, and a march-like Presto for the third. Listeners may find the first movement too long and not to their liking; it is recommended you listen before buying.

The London Philharmonic Orchestra plays admirably for Sir Adrian Boult, who seems completely at home in all types of music. Reproduction is on the shrill side, but not up to Everest's usual standards, but still more than adequate.

SEMI-CLASSICAL



WINE, WOMEN AND WALTZES

- Side I: Love's Own Sweet Song, The Merry Widow Waltz, Tales of the Vienna Woods, The Blue Danube Waltz, Wine, Women and Song, Two Hearts in 3⁄4 Time Side 2: You and You, The Emperor Waltz, The Skater's Waltz, Artist's Life, Gold and Silver, Vienna Life
- Vardi & The Medallion Strings and Percussion

MEDALLION MST-47019

4 track, 71/2 ips

\$8.95....34 mins.

The Medallion Strings and Percussion present a group of best-loved Viennese waltzes that could be subtitled "The Sound of the Blue Danube."

The strings predominate, as they should, over the percussion, through these all-time favorites of Strauss, Lehar, Kalman and Stolz. Although they have been done many times before, this tape is especially entertaining because of the exceptional balance attained, and the high and low frequency response.

Played with a steady $\frac{3}{4}$ tempo, you'll want to dance or just hum the lovely melodies.

Not a spectacular tape, but most pleasant listening, with good stereo effect.—F. N. West

Music

Fidelity

Performance

Stereo Effect

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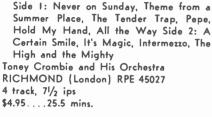
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FILM HITS SPECTACULAR



In the music business today, originality is rare. One organization issues an album of top movie music hits, and a dozen more in the same pattern soon follow.

This tape is similar to all the others as far as the selection of numbers is concerned, but Tony Crombie and his orchestra play them in dance tempo, which is certainly a welcome change. His renditions are quite pleasing and listenable, with arrangements that provide a satisfactory rhythm for stepbing around a bit. Fidelity and stereo are very good .- F. N. West

THE THE SUNDAINERS		
SUND - THE APARTMENT	Music	***
OF	Performance	***
HIAITY THE ONFINITIONEN 	Fidelity	***
PCHE SPELSOND A SOMER PLACE	Stereo Effect	***

THE SOUND OF HOLLYWOOD

Themes from: The Sundowners, The Alamo (The Green Leaves of Summer), The Apartment, The World of Suzie Wong, Never On Sunday, Midnight Lace, The Unforgiven, Sons and Lovers, Black Orpheus, Picnic, Spellbound, A Summer Place

The Medallion Strings, directed by Emanuel Vardi

MEDALLION MST-47013

4 track, 71/2 ips

\$8.95....32 mins.

Much of the music from recent motion pictures makes good listening and most of the recording companies have issued albums of theme, background or mood music, from Hollywood.

Some already have gained recognition and others probably will. Added to this ever growing list is this offering by Emanuel Vardi and the Medallion Strings in which they attempt to obtain a unique sound for the orchestra by using the most brilliant registers of the strings. They have succeeded only in part, as over-recording the high notes approaches stridency at times. However, the themes are attractive and are pleasantly played by an excellent group of musicians-but it's not quite the "Sound of Hollywood."-F. N. West

POPULAR



MUSIC FOR MY LOVE

Side I: I Love You Truly, For You, Anniversary Song, My One and Only Love, Our Love, | Love You Side 2: Let Me Call You Sweetheart, My Darling, My Darling, True Love, No Other Love, Always, Goodnight Sweetheart Paul Weston CAPITOL ZT 1563 4 track, 71/2 ips \$6.98 34 mins.

For those who are inclined to supplement their love-making with music of one sort or another, Paul Weston has collected a memorable group of love songs that are appropriately sentimental and sincere. Here is mood music that is nostalgic and tender, dressed in splendor and ever so appealing.

Woodwinds, mandolins, accordion and string choir blend beautifully under Paul's baton. Brilliance, balance, stereo, presence, all in good taste and so artfully combined you'll just love "Music for My Love,"-F. N. West



SPECTACULAR STRINGS

Side I: Misirlou, And This Is My Beloved, Piccadilly, What Is There To Say, The Happy Bow, It's A Most Unusual Day

Side 2: Slaughter on 10th Avenue, Silent Thunder, Hora Staccato, Theme From "Carnival," There's A Small Hotel, As **Kreutzer** Spins

David Rose and His Orchestra **MGM STC 3895** 4 track, 71/2 ips

\$7.95 . 32 mins.

Strings and David Rose have been synonymous words for a long time. With an extensive background of radio and TV successes, it is natural that this composerdirector would produce an album in which strings are featured in a spectacular fashion. In this offering David Rose imparts a new and exciting beauty to a group of standards and a few of his own originals.

In order to produce outstanding effects he has augmented his regular orchestra with some of the best soloists in Hollywood.

Selections, performance, arrangements and stereo effect are very good. Quality of recording is adequate, but not outstanding .- F. N. West

alle	Music	***
	Performance	***
Steas laters	Fidelity	***
RESARIES	Stereo Effect	***
LEO ADDEO		

PARADISE REGAINED

Sequence A: Ka-Lu-A, Lovely Hula Hands, A Song of Old Hawaii, Keep Your Eves on the Hands, Now Is the Hour, Adventures in Paradise

Sequence B: Every Little Movement, Trade Winds, Hello, Aloha!, Beyond the Reef, No Other Love, I'll See You in Hawaii

Leo Addeo and His Orchestra RCA FTP 1102 4 track, 71/2 ips

\$7.95 ... 30 mins.

Although all of the tunes in this tape are not of native Hawaiian origin, Leo Addeo has given them special arrangements that emphasize the character and motion of Island music. RCA engineers have applied stereo action's sound-in-movement to his interpretations and the result creates a new interest in these colorful and exotic melodies.

The orchestra uses brass, reeds, and accordion as well as guitars and ukuleles, to which are added an assortment of sound instruments such as Chinese bells, tuned log drums and chromatic bongos.

The excellent stereo sound is lively, if not authentic Hawaiian.-F. N. West

SIDS 'N SLAP ALONS	Music	****
EBMI NDO ROS	Performance	***
CHE CHE CHE'S / THEREINGUES	Fidelity	***
1,4 4	Stereo Effect	***

SING'N CLAP ALONG

Side I: There's No Business Like Show Business, People Will Say We're In Love, Heart, I Could Have Danced All Night, Get Me To the Church on Time, There's Nothin' Like A Dame

Side 2: They Say It's Wonderful, Hey There, I Love Paris, On the Street Where You Live, Standing on the Corner, Almost Like Being in Love

Edmundo Ros, His Chorus and Orchestra LONDON LPM 70046

4-track, 71/2 ips

\$6.95 .28 mins.

Adding to the current popularity of singalong programs is this Edmundo Ros sing and clap-along in cha-cha and merengue style that is different. He tapes a group of Broadway hit musical show tunes, changes them to a Latin tempo, adds a bit of percussive treatment with a chorus to sing the lyrics, and the result is a lot of fun.

All of this is enhanced by London's full frequency well recorded sound that makes good listening, singing or dancing. Included is a lyric sheet that helps you with the vocalizing .--- F. N. West.

LINING STEREO

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Music	***
Performance	***
Fidelity	***
Stereo Effect	***

APASIONADA

Sequence A: Perfidia, Maria Elena, Nightingale, Love Me, Jungle Drums, Adios, Mariquita Linda Sequence B: Apasionada, My Love, Summer Night, Amorita, The Look in Your Eyes, Adios The Norman Luboff Choir

- RCA FPT-1077
- 4-track, 71/2 ips
- \$7.95....30 mins.

Switching his talents to Latin American music, Norman Luboff and his choir have registered another hit in this tape. This outstanding group of singers seems limitless in its endeavors, with the colorful interpretations of selections like Perfidia, Maria Elena and other old standards taking on a new appeal. It's all very soft, romantic and tropical music, with stereo adding its benefits to the rich performance of the choir with a most pleasant result.—F. N. West.



EXCITING SOUNDS OF THE SOUTH SEAS

Side 1: South Sea Island Magic, Lovely Hula Hands, Beyond the Reef, Breezin' Along With the Breeze, Polynesian, Pagan Love Song

- Side 2: My Isle of Golden Dreams, Ukulele Lady, Under A Blanket of Blue, Now Is the Hour, Hawaiian Wedding Song, Far Away Places
- Leo Diamond, His Harmonica and Orchestra REPRISE RSL 1705
- 4 track, 71/2 ips
- \$7.95 ... 30 mins.

The authentic melodies of the South Seas, to which have been added a few American standards, are skillfully interpreted by Leo Diamond and his harmonica, accompanied by an orchestra of strings and rhythm section. He has succeeded in retaining the flavor of Polynesian music, while at the same time injecting the harmonica as the solo instrument. In the hands of this virtuoso, the simple "mouthorgan" takes on a remarkable sound.

It's an interesting tape, well recorded, with novel stereo effects.—F. N. West

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Music	****
Performance	****
Fidelity	****
Stereo Effect	***

JOSE MELIS ON BROADWAY

Track A: From This Moment On, The Heather On The Hill, We Kiss In The Shadow, Climb Ev'ry Mountain, Till There Was You, Stranger In Paradise Track B: I Could Have Danced All Night, Tonight, So In Love, Joey, Joey, Joey, Small World Cha Cha, The Party's Over Jose Melis MERCURY (Bel Canto) ST-60610 4 track, 71/2 ips

\$7.95 . . . 35 mins.

Jose Melis provides his many fans with a real treat as he plays a group of favorites from the Broadway musical stage. "I Could Have Danced All Night," "So In Love," "Till There Was You" and nine others are played by three different orchestral settings.

First, his TV rhythm section, then full strings and woodwinds, followed by a brass section added last, all combined with the inimitable piano stylings of this talented artist to create music that is well conceived and recorded. It abounds with good, sensible stereo that provides a worthwhile backdrop for the music of Broadway as Melis plays it.—F. N. West



MORE MUSIC FOR RELAXATION

Sequence A: Alone, The Champagne Waltz, Poor Butterfly, Drifting and Dreaming, Fascination, Among My Souvenirs, Nocturne in E-Flat Sequence B: The Four Seasons, Paradise,

Serenade in Blue, Schubert's Serenade, Mam'selle, Misty, I'm Getting Sentimental Over You, Softly, Softly

The Melachrino Strings and Orchestra RCA FTP-1052

4 track, 7½ ips

\$7.95....40 mins.

The Melachrino Strings and Orchestra have long been associated with music of many moods, and they now have in this tape music for relaxation—beautiful, sweet melodies with a big orchestra sound.

The well selected program includes popular favorites such as "Poor Butterfly," "Fascination," "Serenade in Blue," and many others. George Melachrino's arrangements are very well adapted to stereo recording, and his music provides nice easy listening, with no tricks or special effects. Fine fidelity and recording help to make your relaxation complete.—F. N. West



MORE MUSIC FOR DINING

Soquence A: Medley: Dream, Melody in F. You Are Too Beautiful, Ruby, Ramona, Blue Moon, L'Amour Toujours L'Amour Sequence B: Easy To Love, Musetta's Waltz, Gigi, Stars in My Eyes, These Foolish Things, Always

The Melachrino Strings and Orchestra RCA FTP-1101

4 track, 7½ ips

\$7.95....35:5 mins.

As a companion to the Music for Relaxation tape above, the Melachrino Strings and Orchestra present a group of light classic and popular melodies suitable for dining. Selections include "Melody in F," "Musetta's Waltz" and compositions by Hart-Rodgers, Lerner-Lowe, and Berlin. However, if your equipment produces the very best in high fidelity, you may find this tape lacking quality and presence, with a noticeable deficiency in the high frequencies of the string section.—F. N. West





LOVE SCENES

Side I: La Boheme: I. Love Scene, 2. Musetta's Waltz, 3. Mimi's Farewell, 4. Finale

Side 2: Madame Butterfly: I. Love Scene, 2. One Fine Day, 3. Butterfly's Farewell Hollywood Bowl Symphony Orchestra conducted by Alfred Newman

CAPITOL ZP 8516

- 4 track, 71/2 ips
- \$7.98....39 mins.

Alfred Newman has woven the best known of the love scenes from two of Puccini's operatic works, "La Boheme" and "Madame Butterfly," into a stirring and dramatic orchestral suite of infinite beauty and charm.

The music, skillfully played by the Hollywood Bowl Symphony Orchestra, leaves little to be desired by devotees of the opera. Brilliance and dynamic range are outstanding. Excellent fidelity with full and pleasing stereo effect make this a most enjoyable listening experience.— F. N. West



SING TO ME, MR. C

Side 1: Sing to Me, Mr. C, Medley: All By Myself, I've Grown Acustomed To Her Face, So In Love, Medley: Say It Isn't So, Blue Skies, Here's That Rainy Day, Medley: All I Do Is Dream Of You, Gigi, The Way You Look Tonight Side 2: Theme again—Sing to Me, Mr. C, Medley: Thank Heaven For Little Girls, You Were Meant For Me, A Fellow Needs A Girl, Medley: You Alone, I'm Gonne Sit Right Down and Write Myself a Letter,

A Portrait of My Love, Medley: Smile, How Deep Is the Ocean, This Nearly Was Mine, You Are Never Far Away From Me

Perry Como, with Mitchell Ayres and His Orchestra

RCA FTP-1090

4 track, 71/2 ips

\$7.95....43:30 mins.

If you are one of Perry Como's devoted TV viewers here is a "must," for in it he sings medleys of songs requested by his fans in their letters to him, just as he does it on his weekly show.

The spell and warmth of his personality come through as he sings in his easy and relaxed style, and what you hear is so pleasant and melodic you wonder how he does it.

The dependable Mitchell Ayres Orchestra and the Ray Charles Singers help things along very nicely. However, the engineers seem to have over-emphasized the bass response so that Perry's voice seems to be deeper than usual.-F. N. West.



Performance Fidelity Stereo Effect ★ 🛧 🛧

NEW PLANO IN TOWN

Sequence A: Mountain Greenery, Maria, Slow Boat to China, Bess, You Is My Woman, On the Street Where You Live, St. Louis Blues

Sequence B: Three Coins in the Fountain, Just One of Those Things, Stormy Weather, Long Ago and Far Away, Tea for Two, Body and Soul

- Peter Nero
- RCA FTP-1114

4-track, 71/2 ips \$7.95....37 mins.

This talented young pianist displays his versatility in a group of popular melodies done in his own distinctive style. Some of the presentations have a sound that suggests a bit of Andre Previn, others have the bounce of Roger Williams, but for the most part, it's his Peter Nero improvisations that dominate.

In this variety of modern piano renditions he is ably assisted by a full string orchestra conducted by Marty Gold.

The recording is of the usual RCA high quality .- F. N. West.

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FREDERICK FENNELL CONDUCTS VICTOR HERBERT

Track A: Streets of New York, Habanera, I'm Falling in Love With Someone, March Of The Toys, Sweethearts, Ah, Sweet Mystery of Life

Track B: Italian Street Song, The Irish Have a Great Day Tonight, A Kiss In The Dark, Romany Life, Thine Alone, Kiss Me Again.

Frederick Fennell & Orchestra MERCURY ST-6007 4 track, 71/2 ips \$7.95....31 mins.

Take Victor Herbert's glorious melodies, add Richard Hayman's imaginative arangements, play them by Frederick Fennell and His Orchestra, and you have a tape that is a complete delight.

This is music that needs no tricked up effects and this orchestra wisely omits them, preferring to play them as they should be played.

Unfortunately, there seems to be some stridency on the high notes of the strings as well as a lack of outstanding presence and naturalness at times. Despite this, it's all quite clear and pleasant to listen to. The high spots are the "Italian Street Song" and "The Irish Have a Great Day Tonight," for here the engineers let the music flow through in more nearly natural style. Victor Herbert fans will love it .--F. N. West



POPULAR PIANO CONCERTOS OF FA-MOUS FILM THEMES

Side I: Tonight, Theme From Goodbye Again, Fanny, Theme From Picnic, Moonglow, Tender Is the Night, Tara's Theme Side: 2: Main Theme from Exodus, The Second Time Around, Paige's Theme, Sabre Dance

George Greeley, guest pianist with the Warner Bros. Orcrestra

WARNER BROS. WSTC 1427 4 track, 71/2 ips

\$7.95 39 mins.

Keyboard antics aren't necessary when there is real artistry and George Greeley has it in full measure. He is at his best with concerti, and turns in a creditable performance with a group of themes from the best of the Hollywood sound stages.

Featured is a 101/2 minute concert version of the main theme from "Exodus" that is outstanding.

The full Warner Bros. orchestra, conducted by Felix Slatkin, accompanies Greeley throughout. Sound is well recorded in broad stereo that enhances the keyboard performance of this virtuoso.-F. N. West



PERCUSSION ON STAGE

Side I: People Will Say We're in Love, I Could Have Danced All Night, Let Me Entertain You, Getting To Know You, I've Never Been in Love Before, Some Enchanted Evening

Side 2: Stranger in Paradise, Put On A Happy Face, If I Loved You, The Best Thing For You, Maria, Till There Was You Maury Laws & Orchestra

TIME ST/2027

4 track, 71/2 ips

\$7.95....30 mins.

Just for the record, this is the mildest percussion tape to date-or to say it another way, one of the easiest to tape. If percussion wasn't in the title, it's doubtful that anyone would think of it.

Instead, a smooth, silky flow of hit show tunes, delightfully played in danceable arrangements, reminds you at times of the older dance bands of some years ago, and the present day society orchestras at others. Nevel raucous, but ever pleasing, there is variety enough to keep you well interested to the end. The music comes first and is not manipulated for mere sonic effect. Good separation makes excellent stereo effect.----F. N. West



VIVA CUGAT

Track A: Jungle Concerto, The Peanut Vendor, Isle of Capri, Tropical Merengue, Nightingale, Perfidia

Track B: Siboney, Jungle Drums, Anna, Maria Elena, Poinciana, Say Si Si

Xavier Cugat and His Orchestra

MERCURY (Bel Canto) ST-6003

4 track, 71/2 ips

\$7.95 . . . 31 mins.

This album is a "first" for Cugat on the Mercury label and also his first adventure in stereo sound, all the more reason why he retains his title of "Rhumba King." Nowhere in all the world is another so authentic, so convincing a Latin beat authority as Xavier Cugat. Year in and year out, on records, tape and personal appearances, he continues to thrill everyone with his rhythms -"The Peanut Vendor," "Siboney," "Poinciana" and many others on this tape are all toe-tapping melodies done in an irresistible manner as only Cugie can do them.

Excellently recorded and full of stereo effects, you'll be glad you got this one .- F. N. West



Without notifying us in advance of your change of address so you will not miss an issue.

> TAPE RECORDING Severna Park, Md.

CROSSTALK

from the Editors

WITH THE SWIFT passage of time we seldom realize how the things which mean so much to us vanish almost overnight without a trace. This includes not only the voices of loved ones but things such as the sound of a locomotive, the clang of a trolley car, the sound of a piston engine plane.

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IT USED TO BE that the small fry were told—"see the choo-choo" train. To see a "choo-choo" train nowadays you may have to drive hundreds of miles to where an historic railroad runs them for tourists or where they may still be used on steep grades in the mountains. Today the rumble of the diesel or the whirr of the big electrics have shoved the choo-choo train into oblivion. Say choo-choo train to a youngster nowadays and he'll think you're off your rocker.

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TROLLEY CARS are few and far between. They are left in comparatively few cities. For the most part they have been replaced by the bus. Piston engine airplanes are also heading for the Green Pastures as the jets take over, first on the long hauls and, with increasing frequency. on the shorter runs. The business plane fleet is still mostly piston engine but even here the jets are beginning to show in the fleets of the larger companies that can afford them. But even today's piston engine plane does not sound like the old time engines such as the OX-5 or the early radial engines.

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WE ONCE KNEW A man who had been a U.S. calvary officer. He, as a young man, had been present during the Oklahoma land rush and he used to tell us tales of those days of the opening of the west. This was some years ago, before recorders were as prevalent as they are today. We now wish we had been able to record those tales, directly connected as they were with the history of our nation. There was a man who had experienced what we read about in the history books.

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WITH THE INCREASE IN lifespan, a lot of the old-timers are still with us. old timers not only in the sense of phases of our country's history but old timers in many industries which were romantic, and which have since disappeared. The old days of the Mississippi River steamboats. the heyday of the railroads, the Spanish-American War, the early days of the airplane and the automobile. There are still people alive today who have had personal experience with all of these things. Their comments should be recorded before they too are gone.

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YOU DON'T HAVE TO travel hundreds of miles to find such folks. There probably are some right around the corner, or in the local old people's homes. Nor do we imagine it would be difficult to get the people to talk about the early days for they love to reminisce. We also think that the local library would be very happy to receive and store such materials, or copies from the original tapes.

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- SUCH AN ACTIVITY could follow any number of directions. depending upon your own personal interests. You might be a locomotive fan, or an admirer of old airplanes, trolleys or boats. The collection and restoration of antique airplanes and automobiles has grown tremendously over the last few years. The men connected with the history should be recorded along with the sound of the objects themselves.

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THERE IS A LOT THAT needs to be recorded—and only the man with the recorder can do it. It could be you.

INDUSTRY NEWS

INSTITUTE OF HIGH FIDELITY MANUFACTURERS show in Los Angeles drew over 27,500 persons, according to Ray Pepe who was re-elected to the post of president for another two-year term.

MUSIC TAPES, INC., the new firm headed by Pete Fabri, former sales manager of Bel Canto, will release 24 music tapes from the United Artists and Vee Jay records catalogs. The tapes range in price from \$7.95 to \$9.95.

The VEGA MICROPHONE SALES COMPANY, headed by Art Foy, will handle the marketing and distribution of the wireless mike manufactured by Vega Electronics, according to Russ Tinkham, Vega president. The new firm will be at 1550 Sicsta Drive, Los Altos, Calif.

COUSINO ELECTRONICS has sold a controlling interest to the Champion Spark Plug Company, it was announced by Bernard Cousino. Cousino Electronics will operate as before with their regular personnel. Newest development is a die-cast rape playing mechanism of modular design tooled for mass production which will take the three sizes of continuous loop cartridges designed and built by Cousino.

MILTON SLEEPER, who founded High Fidelity magazine in 1950, is now vice president in charge of product design for R.A.E. Kits and will also edit the RAE Journal, a magazine devoted to the interest of kit builders. The offices of the new company are at Great Barrington, Mass.

REEVES SOUNDCRAFT common stock will be listed on the Pacific Coast Stock Exchange. The ticker symbol will be RSC. Sales this year are up 9.8% over the preceding year. The firm's offices and plant are in Danbury, Conn.

FERRODYNAMICS, Lodi, N. J., has just issued a 3" reel of 1/2 mil Mylar. The reel contains 600 feet of the thin tape and will provide one hour of dual track recording at the 33/4 ips speed.

HOFFMAN ELECTRONICS, Los Angeles, will market a line of portable tape recorders beginning in June, according to Bob Jablonski. The tape recorders will include two transistor models and two or three tube units ranging in price from under \$100 to over \$250. The units will be Japanese made.

AMERICAN CONCERTONE has received a \$368,000 order for its miniaturized tape recorder made for data acquisition, recording and telemetry application.

MAGNETIC RECORDING INDUSTRY ASSOCIATION has welcomed RCA to its ranks, according to Kenneth L. Bishop, MRIA president. The group, with the addition of RCA, now represents all the major tape recording manufacturers and all but one of the music-on-tape companies in the United States. There are now 48 members of the Association representing all segments of the magnetic recording industry.

MINNESOTA MINING's new tape box for its "Scotch" brand tape was awarded a silver ribbon for printing design and quality in the 1962 Fiber Box Competition. The winner was the instrumentation tape box which was printed by silk screen in two colors.

SUPERSCOPE, importers of the Sony line of recorders suggested a recorder as a Mother's Day present. They suggested the model which has a white and coral case and sells for \$79.95 when warranty cards revealed that 30 per cent of the machines had been purchased by women. Holiday promotions will be continued according to George D. Dowloff, advertising and promotion director.

INTER-MARK CORP. is a new firm formed to market hi-fi products and included in its lines are two new recorders, the Cipher I, a three-speed unit and the Cipher III a battery operated unit. The Cipher I is being made by Nippon-Columbia of Japan.

AUDIO ENGINEERING SOCIETY will hold its Fourteenth Annual Fall Convention and Exhibit from October 15 to 19 at the Barbizon Plaza, New York, N. Y. The sessions will cover areas of interest to audio engineers. Authors are urged to submit titles and 50 word abstracts of proposed papers to H. E. Roys, RCA Victor Record Division, 501 N. LaSalle Street, Indianapolis, Indiana. The technical sessions will include: FM Stereo Broadcasting, Requisites of Modern Telephony, Broadcast Audio, Recording Techniques in Europe, Psychoacoustics, Disc Recording and Reproduction, Amplifiers, Magnetic Recording, Stereophonics, Loudspeakers and Microphones and Earphones.

DORSETT ELECTRONICS, Norman, Oklahoma is producing a miniature transistorized tape playbock unit called the Narrator. It is designed to be built into point of sale displays and uses an endless loop cartridge.

WESTINGHOUSE Electron Tube Division is reported to be developing a "low budget" TV system using a slow-scan vidicon tube. Pictures and sound can be stored on an ordinary stereo tape recorder, played back through monitor that converts audio signals to image signals that becomes television picture.

THE WALTHAM WATCH COMPA-NY is reported to be planning to market tape recorders. They will be sold under the Waltham name and while the trial units will be imports, the firm is reported to be considering manufacturing the units themselves if the marketing trials are satisfactory.

TOSHIBA (Tokyo Shibura Electric Co., Ltd.) has unveiled a portable sheet recorder at the Japanese Trade Center in New York. Recording is done on a magnetically sensitized sheet which may be folded and mailed.



Only 8 lbs.—is worn over your shoulder like your camera. Records and plays back up to 2 hours on one reel. Simple to use? Push two buttons and you're recording ... push one button and you're playing back. What could be simpler! Sound is clear as a bell and as loud as you want it. Ruggedly built, with constant-speed motor ... handsomely styled ... surprisingly low-priced. It's the newest Norelco 'Continental' -the 100% transistorized **VTINENTAL** . available at camera shops, hi-fi

dealers and leading stores all over the country. Write for brochure: p.6 NORTH AMERICAN PHILIPS COMPANY, INC.

High Fidelity Products Division 230 Duffy Ave., Hicksville, L. I., N. Y. In Canada and throughout the free world, Norelco is known as the 'Philips'.

TAPE CLUB NEWS

New Handicapped Section



The newest section of World Tape Pals is the Handicapped Section, under the leadership of Steve Florescu of Lincoln Park, Mich. (pictured above). Present aims of this section are twofold: to form a meeting ground where handicapped members may exchange information, and to find sponsors for handicapped persons unable to pay the low membership fee. No member, except the sponsor, the member being sponsored, and the Handicapped Committee will be advised of the individual arrangements, and all membership privileges are open to the handicapped, whether sponsored or unsponsored.

WTP Friendship

The spirit of WTP friendship made a memorable occasion of the stopover between planes of a Welchman on his way to visit relatives in Pennsylvania.

Trevor Davies, formerly of Wales, now of London, made a long planned visit to his sister in Scranton, Pa., whom he had not seen in 35 years. He contacted several of his New York tape pals, and when his plane touched down at International Airport, he was met by George Thompson, of Brooklyn, and Mrs. Marion Koller, of Brooklyn. The three drove out to George's home, where his mother had prepared a delicious dinner, and after cating and listening to "Uncle Toffy's" stories on Wales and England, took him to the Newark airport to continue the last leg of his journey.

George and Mrs. Koller met Trevor again on his return trip on New Year's Day, and helped him transfer between airports.

Voicespondence Tape-Vention

The Voicespondence Club will hold its annual Mid-West Tape-Vention on Saturday, August 25, this year, and all members are invited. Lloyd Wood is Chairman of the Tape-Vention Committee this year, and Chet Heather, Tony and Melba Peters, and Jack and Mary Conrad are among those helping.

The meeting will be held at Buffalo Rock State Park just west of Ottawa, Illinois, off Rt. 6. This is a reasonably central location, not too far from Michigan and Ohio via the turnpike and within easy reach of Indiana, Illinois, and Wisconsin. The club is going to give a small prize to the member who comes the greatest distance to be there, and also to the member who drives his car and brings the most other members with him (children in family memberships won't count).

A day of fun and friendship is planned, and families and friends are invited, as are any persons interested in recording or voicesponding. There is plenty of room for children to play, the view is lovely, and motels and restaurants are nearby. For information and/or reservations contact Lloyd Wood, P.O. Box 165, Ottawa, Illinois, and enclose stamp for reply.

Duet Voicesponding

Voicespondent Walter G. Ballinger passes along a recording suggestion. From his own experience he has found that it makes a much more interesting tape to have two people sitting side by side with the mike in the middle carrying on a conversation, than to have each person take the mike and talk individually.

There are many hints for making interest-



CLUB DU RUBAN SONORE J. A. Freddy Masson, Secretary Grosse IIe, Cte, Montmagny, P. Que., Canada J.

INDIANA RECORDING CLUB Mazie Coffman, Secretary 3612 Orchard Avenue Indianapolis 18, Indiana

MAGNETO-VOX CLUB J. M. Roussel, Secretary 7/15 Des Erables Montreal 35, Que., Canada

ORGAN MUSIC ENTHUSIASTS Carl Williams, Secretary 152 Clizbe Avenue Amsterdam, New York

STEREO INTERNATIONAL O. B. Sloat, Director 1067 Flatbush Avenue Brooklyn 26, N. Y.

TAPEWORMS INTERNATIONAL TAPE RECORDING CLUB Marion Chism, Co-ordinator 129 South Broad Street Carlinville, Illinois

ing tapes for voicesponding, but this one results in the difference between a dull tape and one that is listenable.

Appeal Answered

As the result of an appeal by Club Du Ruban Sonore to its members, in favor of the work carried out by His Excellency Bishop R. Larose, of Bishop's House, Chittagong, East Pakistan, fifteen dollars were subscribed. This sum was used to send out magnetic tapes and tape supplies to His Excellency Bishop R. Larose.

Some Changes Will Be Made

Magneto-Vox Club has announced some significant changes in its format. It has been noted that many members seem to have particular interest only in certain activities of the club. Therefore, it has been decided to divide the club into three separate sections: (1) Music and hi-fi enthusiasts, (2) Tape corresponding enthusiasts and (3) Sound hunters.

Annual dues for each section will be \$1.00 and anyone may join any one, two or three sections.

Also, the club will no longer supply tapes to round robin participants. Any group of four or six members can start one and share the payment of the tape.

- JOIN A CLUB

THE SOCIETY OF TAPE HOBBYISTS Ralph Holder, General Secretary 116-06 139th Street South Ozone Park 36, N. Y.

THE VOICESPONDENCE CLUB Charles Owen, Secretary Noel, Virginia

UNION MONDIALE DES VOIX FRANCAISES Emile Garin, Secretary 886 Bushwick Avenue Brooklyn 21, N. Y.

UNIVERSAL TAPE NETWORK Larry Duhamel, President R. F. D. #1, Main St. East Douglas, Mass.

WORLD TAPE PALS, Inc. Marjorie Matthews, Secretary P. O. Box 9211, Dallas 15, Texas

WORLD-WIDE FRIENDS BY TAPE George A. Benton, 3rd, Mgr. 1018 Leo Way Oakland 11, Calif.

OVERSEAS

AUSTRALIAN TAPE RECORDISTS ASSOC. Bob Nardi, Mon. Sec./Treas. P. O. Box 67, Eastwood, New South Wales, Australia

ENGLISH SPEAKING TAPE RESPONDENTS' ASSOCIATION Robert Ellis, Secretary and Treasurer Schoolhouse, Whitsome By Duns Berwickshire, Scotland

THE BRITISH AMATEUR TAPE RECORDING SOCIETY Ted Yates, Secretary 210, Stamford Road Blacon, Chester, Cheshire, England

THE NEW ZEALAND TAPE RECORDING CLUB Kenneth M. Tuxford P. O. Box 7060 Auckland, W. I, New Zealand

Please enclose self addressed, stamped envelope when writing to the clubs.

TAPESPONDENTS WANTED

This listing is for those seeking tape correspondents, looking for swaps of tapes, etc. and it is a free service for our readers. If you wish your name listed send us the following information on a post card: I-Name, 2-Mailing Address, 3-Kind of recorder, speed and number of tracks, 4-Subjects on which you want to tapespond or items for which you are looking. 5-Indicate whether you are an adult or teenager. Listing will run two months and then be dropped to make way for new listings. Address your postcard to: TAPESPONDENTS WANTED, Tape Recording Magazine, 101 Baltimore-Annapolis Blvd., Severna Park, Md.

- Duane Davidson, RR-12 Box 172, Lafayette, Indiana; Recorder: RCA cartridge, 4 track, 3¼ ips; Interests: Promoting correspondence via the cartridge type tape. Educating the public to the superiority of magnetic tape as a means of music playback; Adult.
- Phillip P. Towell, 107 Spilsby Road, Boston, Lincolnshire, England; Recorder: Sony 300 Sterecorder, 7½ or 3¾ ips, dual or quarter track; Interest: Locating recordings, all music (except jazz), stereo especially; Adult (31), bachelor.
- Tony Leslie (wife: Jean), 23 Mount Street, Levenshulme, Manchester 19, England; Recorder: "Countess," 3¾ or 7½ ips, dual track, up to 7" reels; Interests: Modern Jazz (Herman, Basie, etc.), general topics; Adult, occupation: "Minicab" driver.
- Jacob J. Hess, 1130 Hillcrest Drive, Freeport, Illinois; Recorder: Sony 300 Sterecorder, 3½ & 7½ ips, monaural, 2 or 4 track, others available; Interests: Stereo hi-fi, round and square dance music, background, Hawaiian, South American, etc.
- Ray Stewart, Jr., P. O. Box 177, Winston-Salem I, N. C.; Recorder: V-M Model 710A, 3¾ and 7½ ips, dual track; Interests: Ham radio, audio, hi-Fi, psychology; Adult.
- Leurence Aragon, P. O. Box 40, Casa Blanca, New Mexico. No recorder given. Interest: 1 wish to have tape pals with whom I can voicespond. My hobby is collecting phonograph records of various kinds. I am also a sports fan, I like baseball, basketball, football, boxing and wrestling. I did some wrestling during my high school years and am still active at this time. If there are Indians of any tribe, I wish to hear from them, but in English speaking, please. Perhaps I can exchange songs and chants with someone, as I am an Indian song composer too. My tribe is Laguna Pueblo.
- Charles W. Ingersoll, 1420 Ave. "C", Cloquet, Minn.; Recorder: Wollensak, 3¾ & 7½ ips, dual track; Interest: Wants to be tapespondent with resident of San Francisco, Calif.—also organ enthusiasts; Adult.
- Wayne Johnson, 306 Livermore Terrace, Los Angeles 42, Calif.; Recorder: Knight (KN-4075), 1%, 3¾ and 7½ jps, 4 track stereo; Interests: Swing era bands, light classical, collector's items—all kinds. Interested in exchanging tapes, ideas and general tapespondence. Adult (32), single.
- E. Wolcott, 22140 Cohasser St., Canoga Park, Calif.; Recorder: Sony, 3¾ & 7½ ips, 4 track; Interests: Piano Music, just about all subjects.
- Michaei Bett, 81 Northfield Road, Peterborough, Northants, England; Recorder: Phillips, 2 or 4 track, 3¾ & 7½ ips; Interests: Swing Bands 1936-1942, Disieland, Show & Film music, all tapes promptly answered.
- Kenneth Kaplan, 67-38 108th St., Forest Hills 75, N. Y.; Recorder: Wollensak 1515-4, 3¾ or 7½ ips, 2 or 4 track; Interests: Broadway Shows, pop and semi-classical music, Martin Denny arrangements, Bob Newhart humor, all interesting people, I welcome and will answer all English language tapes; single adult (29).
- Leslie L. Smith, 411 E. Mason St., Owosso, Michigan; Recorder: Webcor, 3¼ and 7½ ips, dual track, monaural; Interest: Would like complete John Glenn press conference which was broadcast on 2-23-62, advise amount of tape needed, will pay all postage.

- Tom Castellucci, 734 E. Waugh St. Alliance, Ohio; Recorder: Ampex 960, 334 and 71/2 ips, 2 track; Interests: Secretary for Sound Dimension Club of 15 members whose interests are exchange of storeo tapes, jazz, organ music, popular and motivation recordings; Adult group (25 to 35).
- Bill Vautrain, 2666 So. Marion St., Denver 10, Coto.; Recorder: Telectro MDL, 1975, 3¼ and 7½ ips, 2 track monaural; Interests: Sports cars (foreign), guns, poetry, short stories, exchange info on making better tapes at all speeds.
- Walter Gass, 801 9th St., Ames, Iowa; Recorder: Norelco 300, 1%, 3% & 7½ ips, quarter track; Interests: Photography, tape pals around the world, language exchange; Adult.
- Robert Ettinger, 3821 18th Avenue, Brooklyn 18, N. Y.; Recorder: Wollensak 1500, 3% & 7½ ips, dual track; Interests: Jazz bands of 1930's and 1940's and Dixieland music; Adult.
- Roger Feingeld, 2055 Cruger Ave., Bronx 62, N. Y.; Recorders: V-M 722, 3¹/₂, and 7¹/₂ ips, 4 track stereo record, V-M 714, 3¹/₄ and 7¹/₂ ips, 2 track stereo playback; Interests: Art of conversation, meeting of the opposite sex, provisions for copying music, almost all topics; Teenager (17).
- Cedric H. O'Neil, 211 Santa Ana Avenue, Long Beach 3, Calif.; Recorder: Magnavox Concert Grand, 3¾ & 7½ ips, dual track; Interests: Music, all types. Piano player and pianist, writing (professional writer & musician), travel and general discussion; Adult.
- Sheldon Redder, 2157 Wallace Ave., Bronx 62, N. Y.; Recorder: Columbia, 2 track, 3¼ & 7½ ips; Interests: Amateur radio, rock & roll, show tunes, meeting opposite sex, sound effects, provision for the copying of tapes; Teenager (16).
- Joseph S. Szaryas, 315 Main St., Freemansburg, Penna.; Recorder: Crestwood 400 Series, 3½ & 7½ ips; Interests: Hungarian music, also Cimbalon (Dukcimer) music, would like to tapespond with other Hungarians.
- Greg Gordon, 5920 Colbath Ave., Van Nuys, Calif.; Recorder: Wollensak T-1515, 33/4 and 71/2 ips, dual track, stereo and mono playback, mono record; Interests: Most all types of music, especially swing and vocal groups, humor and satire, radio plays, science fiction, sound effects, never tapesponded before, but anxious to start; Teenager (17).
- Fred Reynolds, 544 Clarkston St., Denver 18, Colo.; Recorder: Telectro MDL. 1975, 334 & 71/2 ips, 2 track, monaural; Interests: Narrated and/ or music tapes, tapes with sender acting as M.C., etc. Conversation tapes of any subject, trade info on making better tapes; Adult.
- Richard Gordon, 5920 Colbath Ave., Van Nuys, Calif.; Recorder: Wollensak T-1515, dual track, stereo and mono playback, mono record, 3¼ & 71/2 ips; Interests: Tape recording, recording plays, writing stories, music, sports; Teenager (13).
- Jack O. Dowdell, 601 Park Road, Creston, iowa; Recorder: Telectro 350, 1%, 3 ¼, & 71/2 ips, dual track; Interests: Dixieland, swing music of the 30's & 40's, adult comedy, party tapes, unusual material, tape clubs, taping some radio programs; Adult (48).
- J. G. Connor, R.F.D., Ontario, N. Y.; Recorder: Wollensak, dual track, 3¾ & 7½ ips; Interests: Art, Spanish, photography, weightlifting; Adult.

- Richard J. Bruno, 4 East 60th Street, New York City 22, N. Y.; Recorder: V-M model 700, 3¾ & 7½ ips, dual track; Interests: Comedy, sound effects, magic, ventriloquism, French, jazz, big band swing, travel and conversation; Adult.
- Keven Hond, 6011 Airdrome, Los Angeles, Calif.; Recorders: two Telectros, 1%, 3% and 7½ ips; Interests: Horror and war sounds; Teenager.
- Howard G. Mayer, 263 Biltmore Ave., Elmont, L. I., New York; Recorder: Webcor, 71/2 & 33/4 ips, dual track; Interests: Tapespond on Bing Crosby collecting, exchange tapes of rare material, complete record collection, lots of noncommercial material; Adult,
- Jerry Mitzner, 1764 Walton Ave., Bronx 53, N. Y.; Recorder: V-M 720, 3¾ and 7½ ips, quarter track; Interests: Would like to exchange tapes of R'n R'which I love. Also comedy and discuss politics and general topics; Teenager (17).
- Jack Elias, 2416 South 7th St., Philadelphia 48, Penna.; Recorder: Webcor, 1%, 3% & 7½ ips, 2 track, monaural; Interests: amateur radio and shortwave listening; Teenager.
- Willard Gray, 8 Chester Ave., Pointe Claire, Montreal 33, Quebec, Canada; Recorder: Phillips (Norelco), 1%, 3% & 7% ips, 4 track; Interests: Travel, world affairs, general tapespondence, Dixieland jazz; Adult.
- M. Kent Miller, 821 Hawthorne Rd., S.W., Winston-Salem, N. C.; Recorder: Wilcox-Gay Recordio, 3¾ & 7½ ips, dual track; Interests: Sports, amateur radio, hi-fi, electronics, automobiles; Adult.
- Edward J. Brady, 371 Hudson Avenue, Albany 10, N. Y.; Recorder: Telectro MR-111, dual track, 334 & 71/2 ips, 5" reel; Interest: Beginning Russian language student desires tapespond with Russian starting English; Mature.
- Joseph G. Merritt, P. O. Box 201, Lemon Grove, Calif.; Recorder: Telectro, 1%, 3% & 7% ips, dual track; Interests: Travel, photography, woodworking, physical fitness, music and just learning to know people, both men and women; Adult.
- Kenneth Miller, 1500 Grand Concourse. New York 57, N. Y.; Recorder: Fi-Cord, 71/2 ips, dual track; Interests: Outdoor recording, sound hunting, portables; Adult.
- Mike Berman, 13 Pickwick Rd., DeWitt 14, New York; Recorder: Wollensak T-1500, 334 & 7½ ips, dual track; Interests: Insects, Science in general, math, jazz, and drums. Also historical events, especially outer space, astronauts, etc., plus tapes in general and sound effects; Teenager (15).
- Paul E. Wintergrass, Jr., 138 Lincoln St., Steelton, Pa.; Recorder: V-M model 722, 4 track, 3½ & 7½ ips; Interests: Dixieland, country and folk music and all popular. Wants someone in Harrisburg, Pa. area to exchange and copy stareo tapes; Adult (30).
- Merry Meinze, c/o Fieldbrook Publications, 212 Yuma Lane, Wheaton, Illinois; Recorder: Tandberg Model 5, 1%, 3% and 7% ips, 2 or 4 track. Interest: Authors of foreign and domestic instruction booklets for recorders seeks comments and constructive criticism from tape enthusiasts, concerning contemporary instruction literature in any commercial product line, chance to sound off; Adult.
- Harvey White, 1105 Waller Ave., Winnipeg, Canada; Recorder: Ampex, 3% & 7½ ips, 24 track; Interests: Jazz, swing, bands, love comedy routines. Swinging organ music. Want air shots of swing bands. Goodman, Basie, Herman, Dorseys, etc. Want Buzzy Adams, Bert Henry, Jack Carter, Nipsey Russell, Joe E. Lewis, Jan Murray or? Want any sales of Jack Lacey, Earl Nightingale, Red Motley, or?; Salesman, Adult (38).
- Honk Snow, 2199 Cruger Ave., Bronx 62, N. Y.; Recorder: Norelco Continental 400, 1%, 3% and 7/2 ips, 4 track stereo and monaural; Interests: hi-fi, stereo, good music, science fiction, and sound effects; Teenager (16).

NOTE: We have a backlog of names on file which we must hold until we have space to publish them. We are publishing each name in two issues as stated in our heading. Please be patient until your name is used.

"WHY MY RECORDER IS IMPORTANT TO ME" CONTEST

WIN A REEL OF TAPE. Tell us in your own words why your recorder is important to you, not why it could be important to someone else. Entries will be judged on the basis of their usefulness to others and on the uniqueness of the recorder use. No entries will be returned. Address your entry to: Important Recorder Contest, Tape Recording Magazine, Severna Park. Md.

Gentlemen:

Did you ever hear a dream talking? Well, 1 did. What's more, 1 have a number of these "talking dreams" on tape.

My husband, you see, is a somnorator which is another way to say that he talks in his sleep. Oh, he doesn't reveal any dark secrets—he is more the Walter Mitty type. He has been many things in his dreams, including an Indian fighter, a sea captain, and a general of the army. Not content to keep these somnalent extravaganzas to himself, he speaks the part he is playing. Sometimes there are several characters in a dream, and he takes all the parts, changing his voice or accent to suit each. I have succeeded in getting a number of these on tape.

Here's the procedure. I set up my recorder in the corner of the bedroom, all set to record except for switching it on. I aim the microphone strategically, and then we retire. If it's a night for dreaming, along about 3:00 a.m. I may be awakened by something like "The Comanches are coming!" I slip surreptitiously out of bed and switch on the recorder. Next morning I play back the tape, and we both have a good laugh. Our friends find them amusing, too.

Awake, my husband is really a rather ordinary fellow. His hobby is weather, and each day he listens to a number of weather round-ups and broadcasts. If for some reason he is detained at the office, I step in with my trusty recorder and get a broadcast on tape which he might otherwise miss.

My own hobby is creative writing, and again the recorder goes to work. Since I am blind, I cannot simply do a draft on the typewriter and then work it over. I rough out a draft in Braille, then talk it onto a tape. From this I type a draft, and then my husband and I go over it together. When we have all the wrinkles ironed out, he dictates it onto a tape again and from this I type the finished copy.

I use my recorder for more prosaic things, too, such as corresponding by tape, recording the voices of family and friends, etc. However, you asked for unusual uses. I figured the above three might qualify.— Mrs. Stanley A. Reinke, Oshkosh. Wis.

Gentlemen:

My tape recorder is important to me because I have two classes to teach. I have found that I can use my recorder in many ways to help one class while I am teaching the other class. I have used it to record review questions which I want a class to study or to write the answers to these as the tape is being used. I have taught the children how to operate the tape recorder, and that helps as the class using the recorder is in a room adjoining mine and it is not an added chore for me. I know that the child in charge will stop the recorder when it is necessary.

I select stories to be read by the class and we all listen to these at a later time. I have used it for spelling reviews and spell downs, and it is in this marathon spell down that the children really like the tape recorder. I have used it for speed and concentration in reading by asking leading questions from page to page or paragraph to paragraph. We have recorded singing and choral speech, also. In fact we just use our tape recorder (PERIOD). And, I can always use an extra tape.—Sister Petronilla, O.P., Lincoln. Nebr.

Dear Editor:

My tape recorder is important to me because it gives me:

Realism—Taped letters from distant relatives and friends bring the sound of their own voices, their musical instruments, etc. right into my home. It's almost like a personal visit.

Economy—A tape can be mailed anywhere in the U. S. for 4c, and can be reused indefinately.

Companionship—I am alone much of the time and my recorder is a constant companion as it peals forth my favorite music or other recorded material.

Opportunity—It is a real pleasure for me to be able to take the church services on tape to those who are unable to attend the services, and also to mail them to missionaries far away who welcome such a message from their home church.

Remembrances—Voices recorded from the past bring back fond memories.

Delight—One of the most delightful experiences at a family gathering or party is the playing back of a tape which had been unknowingly made by the guests through a hidden mike.

Education—I enjoy learning to care for and repair my recorder. This is an education in itself. Also I use my machine for memorization work.

Reading-assistance—As I am visually handicapped, I appreciate the books and periodicals recorded by volunteer readers, and available from many libraries throughout the country.

Recorders are great. Every family should have one.-Verda Brenner, Kenmore, N.Y.

Gentlemen:

My recorder is a real friend to me because it has brought joy into my life enabling me to become the only blind member in San Francisco of Toastmasters International, thus making it possible for me to prepare for the program each week.

I learn my script in plays through the medium of my recorder.

This component part of my Hi-fi system is the reason that I am recording secretary for my trade association.

My many recipes have been taped for me as well as other material of an educational nature.

I cannot emphasize enough the importance of many emergencies being solved by having material read over the telephone on to my recorder.

When I switch on the recorder, I am ready to follow the sound down the pathway of knowledge.—William Peck. San Francisco. Calif.

Gentlemen:

While in the active ministry I used my recorder in most of the many ways pastors have found recorders useful, helpful and entertaining.

Since my retirement my recorder is very important to me. I have had many of my ministerial friends record favorite Scripture passages for me. I have these in groups of four to seven to a tape, with a brief introduction and a closing prayer. Already these tapes have real sentimental value, and this becomes greater as the tapes grow older and as the readers "pass on."

If others are doing anything like this I have not heard of it. I heartily recommend it as something really worthwhile and truly rewarding. I keep adding to my collection at every opportunity.—Otto Stockmeier. Holgate, Obio.

Dear Sir,

I am an assistant sports editor in the High School which I attend. It is my job to interview rival school coaches and write up articles based on their comments. Using a pick-up on my telephone it is a simple matter to quickly get these interviews. The coaches appreciate this taped service as they never have to repeat the spelling of difficult names or complex information. When writing the articles from the tape I can replay the conversation several times and be positive that it is accurate.—William C. Mac-Kay, Westfield, N. J.

Gentlemen:

As an avid flying and photo bug I have found I can make a very interesting and useful threesome by adding my tape recorder.

About two years ago I bought, modified and mounted a war surplus gun camera on my plane, a super cub. I shot (no pun intended) quite a few thousand feet of film on my vacation most of which came out very well. However, when showing them to friends and neighbors, I noticed that it was quite dry. By adding a converter to the planes electrical system I was able to put a four track tape recorder in the cockpit with me. Now when I go on vacation or even when just "flying around" I am able to narrate a tape to go along with the film when it will be shown. It has a very good effect upon the people watching the film because the narration was made on the spot capturing all of the action and the moods.

When not in the plane the tape recorder fills a useful place in my stereo system. I am sure that I have not as yet put my tape recorder to work in all its varied ways, but then, I haven't stopped trying.— Arthur D. Morgenstern, Brooklyn, N. Y.



W HY are changes in education resisted? Who is responsible for making needed innovations and what factors must be overcome in bringing new teaching ways to the classroom?

One of the soundest pieces of research aiming to answer these questions has come from the pen of Henry M. Brickell, Assistant Superintendent of the Manhasset, L. l. schools. The study was made for the New York State Commissioner of Education and copies are available to interested parties from the State Education Department, Albany, N. Y.

It was found that parents and citizens' groups do not exert enough influence on the adoption of instructional programs but their influence is decisive when it is exerted. The influence of boards of education is likewise decisive but they are not strong agents in determining the path of educational innovation.

Teachers are not change agents for instructional innovations of major scope but new types of instructional programs are introduced by administrators.

Professional suspicion about the value of innovations in other school systems and even about the sincerity of the innovators is a large factor and an inhibitor of educational change.

The researcher found that the most persuasive experience a school person could have is to visit a successful new program and observe its action. Speeches, literature, research reports and conversations with participants outside the actual instructional setting are interesting but relatively unconvincing.

He also found that anything unreal or artificial in the circumstances surrounding an observed program—i. e. anything appreciably different from conditions in the visitor's school system could rob the visit of its persuasive effect.

Despite initial apathy or even opposition on the part of a number of teachers, new programs can be introduced and the most successful innovations are those which are accompanied by the most elaborate help to teachers as they begin to provide the new instruction.

Oddly enough, the colleges and universities have little influence on instructional innovations in elementary and secondary schools, except for their role in the training of teachers. Nor, it was found, were the colleges and universities well organized to exert direct influence on elementary and secondary programs and they do not consider this to be one of their basic responsibilities.

It was found that teacher education programs do not attempt to equip the prospective teacher with specific instructional techniques, but concentrate on developing a general professional wisdom out of which he can develop the specific techniques needed for any given task. Actual instruction in specific techniques is said to be the responsibility of the schools which employ the college graduates.

The teacher education programs do not

train teachers in how to carry out new, instructional processes until those processes are in general use in the elementary and sescondary schools.

While the professional associations are the supreme communicators in the profession, the communication which they provide is random, disjointed, overlapping and unfocused.

Commercial organizations, such as textbook publishers, are extremely powerful. When they promote an instructional change a great wave of influence sweeps over the schools. But when they begin to market a given product, they serve as powerful inhibitors of change since they seek volume distribution and repeat sales of the product.

Dr. Brickell's report recommends that the Regents of the University of the State of New York should stimulate and subsidize the formation of regional School Developments Units to disseminate the programs proven and endorsed by the Education Research Agency.

The Units would have three functions: 1—to demonstrate the programs proven and endorsed by the Education Research Agency, 2—to teach teachers in the component districts how to carry out the new programs and 3—to arrange for nearby colleges and universities to teach the necessary skills on a continuing basis.

New programs should be demonstrated not by the staff of the Regional School Development Unit but by regular teachers in regular schools.

In our opinion this is one of the most important pieces of school research that has been done. It is concrete and detailed and the points it makes frankly and honestly get directly at the roots of inaction and also spell out those who have the most power to make the necessary changes.

We believe that every manufacturer who has hopes of getting his products into the school systems should secure a copy of the full report and make it mandatory reading for his sales and development staffs.

It should serve to save the companies from a lot of grief and the school systems the necessity of wading through a lot of claims and counterclaims. It should also serve to diminish the commercial warfare over school business with the largest firms holding the lion's share by virture of the size and sales staffs. It should allow the smaller firms to stand a chance of introducing products strictly on their merits.

With an Educational Research Agency holding the reins over new innovations there should be less confusion and more wide-awake and consistent instruction.

The people who run the research agency will have a great responsibility on their shoulders, however. They must be people who have a broad interest and an understanding of educational problems. No one school of thought can be allowed to dominate the selection of any media but, instead, actual scientific tests and determination of learning rates should provide the answers to which is best among new methods.

TAPE RECORDING IN EUROPE

Some of the most interesting developments in tape recording are taking place in old-established factories and laboratories in Europe. The fullest information about them appears regularly in TAPE Recording Magazine, published in London, England, since February 1957.

TAPE Recording Magazine was the first and is today the foremost publication in Europe in this field.

It will enable you to enjoy a unique world-view of what tape recording engineers and scientists and European amateur enthusiasts are doing.

For a one-year postal subscription send \$3.50 to ---

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ROBERTS ELECTRONICS, INC. Dept. TP-6-L 5920 Bowcroft Ave., Los Angeles 16, Calif. Please send me:

Roberts Stereo Tape Instruction Manual containing stereo and monaural applications. Lenclose 25¢ (cash, stamps) for postage and handling. ☐ The name of my nearest dealer.

Name _____

City _____Zone ____State ____

LETTERS

Excerpts from readers' letters, including questions and answers, will be used in this column. Address all correspondence to: The Editor: TAPE RECORDING, Severna Park, Maryland

Where Did Q & A Go?

To the Editor:

I notice that your "Question and Answers" section is now missing. Would like to have it back.

I have a T1500 Wollensak recorder and ran into a problem that I understand is quite common with this recorder. The company said it should not happen but an authorized service man said almost all machines have it.

Here is the problem and how I overcame it. I noticed that after two or three hours of use that the case, especially the left side, becomes quite hot. This is an all-metal case and after a few hours the case became very warm. After using the recorder for some time with the bottom panel removed, I put the blame on the motor, which gets very hot. After putting on and removing the bottom panel several times in order to take the recorder to friends' homes I found a quite acceptable solution.

In front of the fan opening on the bottom and along the back side of the panel I drilled $\frac{3}{8}$ " holes. Four on the back side and five in front of the fan opening. Now the case keeps quite cool.

This heat had affected the speaker so that there was a distortion on the lower bass notes. I took some asbestos paper as is used in furnace work and covered the back of the speaker. These two modifications seem to work very well, at least in my case. I wish you would pass this information along to other owners who may have this same trouble. If others have had this trouble and found a different approach I wish they would contact me.—Laurence E. Folske, 173 Boyd Street, Fond du Lac, Wisconsin.

While it is true that the "Question and Answers" heading has disappeared the Q & A's have not. We found that most of the letters we received were a combination of comments and questions which properly fitted into neither the "Letters to the Editor" or "Questions and Answers." We have therefore combined both into the "Letters to the Editor" department.

Adequate ventilation is the only solution for a hot-running recorder and care should always be taken not to set any machine on a deep pile rug or cushion that will block the ventilation boles. It also helps to put something under the recorder feet to raise the machine higher from the table top and thus allow free air passage. Your solution sounds both reasonable and easy of accomplishment.

For Antique Collectors

To the Editor,

I have acquired through a relative an old recording device. It is not much good but I thought you might be interested or might know someone who would like to add it to a collection of early items in the field. It was made by the Daystrom people of Poughkeepsie, N. Y. and recorded by means of a needle scratching on 35 mm film. That's right...scratching...not magnetic in any way. The film is arranged in a continuous loop arrangement with some sort of worm mechanism allowing the needle to travel outward across the film, thus allowing for about 50 tracks on each film. The film is carried on a bracket attached to the case which houses the electronic components.

Frankly, my personal opinion of the thing is that it is very poorly designed but perhaps it would be of interest to you or somebody.—*Slim Sterling, Grand Blvd., PO Box* 201, Valballa, N.Y.

Anyone interested in this antique recording device can contact Mr. Sterling directly and make him an offer.

Reel Identification

To the Editor:

One of the knottiest problems of the amateur tape recorder enthusiast is how to keep a recorded tape on the same reel so the reel can be properly identified. I found my tapes often showing up on an unmarked reel in an unmarked box (especially if I loaned them out).

I have two extra holes in my head—one from scratching my head for three years trying to figure out this problem; the other hole is from scratching my head trying to figure out why I didn't think of the answer sooner—it's so simple.

Mark each end with leader tape? NO. Use special colored reel? NO. Record in one direction only? NO.

Just don't ever remove the tape from its reel! You can even glue the inner end to the reel. But, you say, that will work only the side coming up. You're wrong, pal. For the tapes with recording on both tracks, put full reel on left spindle to play the side coming up. To play the other side, put full tape on right spindle and rewind to part you wish to play, then go ahead and play it. Simple, eh? For recorders that play from right to left simply reverse this procedure.

This system permits you to stick permanent contents info on each side of the reel, just like phono records.

Another little tip you may not have thought of—run off 5 feet or so then set the counter at zero before recording. This way when you spin back to zero you don't run the tape clear off the reel.

And now, just to prove I don't know everything—a question. I have ordinary speaker wire running from my Bogen Soundspan RP40A to my Roberts for transferring multiplex stereo broadcasts to tape. Results seem quite satisfactory—but would better shielded cable, like on my microphone, give better results?—Omar Midyett, East St. Louis, Ill.

The only necessity for using shielded cable is when the curent being carried is very small, such as the current from a microphone element. Such leads, if made of ordinary wire, will tend to pick up stray electrical fields and cause hum in the signal. Other connections where the use of shielded cable is advisable is from tape heads to preamplifiers and from pre-amplifiers to power amplifiers. There is no need for it, although it may be used if desired, between power amplifiers and speakers or speaker connections to tape recorder inputs, or from the high current output of a power amplifier into the phono input jack of a recorder.

Distortion Problem

To the Editor:

I have some tapes on which the recording is distorted (speeded up with the resulting Donald Duck effect). They were recorded on a spring-wound portable machine. Is there any way in which these tapes could be copied so as to reduce (not necessarily remove) the distortion? Could one, for exmove) the distortion? Could one, for example, use a variable voltage control with the playing machine to reduce its rate of tape transport so as to compensate for the distortion.—R.B.L., Pittsburgh, Pa.

If a variable voltage control were to he used it would have to be connected to the motor only since a drop in voltage in the electronics would affect the functioning of the playback amplifier. Also, such control would not be practical with a recorder having a synchronous motor since these depend upon the frequency of current for their speed.

It might be better to rig a drag brake on the feed reel to slow the tape. This will impose more strain on the tape itself but it should not result in breakage. The index counter readings should be noted immediately before and at the end of each spot to be slowed while the tape is played at normal speed. Then it should be rewound for copying and the index timer used to indicate where the braking action is to be applied.

Tape Promotes Friendship

To the Editor:

Let me tell you that I receive your magazine Tape Recording very regularly. It is a very interesting magazine and I got it through a subscription from R. B. Hale of Amsterdam, N.Y. I have tapesponded since 1958 and am a member of several American tape clubs: The Voicespondence Club, the American Tape Exchange and Catholic Tape Recorders International.

Being in tapespondence with America, or the United States, I have already had the pleasure of meeting three of my tape friends, Bob Hale from Amsterdam, N.Y., Jim Langston from Philadelphia and Bud Fisher from Buffalo. So last year was a busy one for visitors—we'll see what this year holds.

My visitors did not come all together. First, in February, Bud came along, in April came Jim Langston and his wife Stella and daughter and last, but not least, Bob Hale also made a trip through Europe. For me it is always an exciting moment to meet my tape friends face to face. As Belgium has a lot to offer visitors, it was a pleasure to show my visitors and friends around in Antwerp, Brussel, Ghent and Brugge.—Jo Van de Velde, 16 Edgard Casteleinstr., Antwerp. Belgium.

NEW PRODUCTS

TANDBERG SERIES "8"



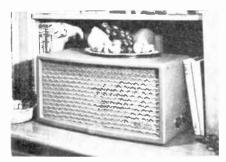
The Series "8" newly developed monaural playback units available with half track or guarter track heads have been introduced by Tandberg of America, Inc., Pelham, New York, exclusive distributor of Tandberg Norwegian hi-fi equipment. Some of the features contained on these machines are: a hand rubbed oil finish base with modern gunmetal gray deck panel; 2 speed operation; newly designed tape load operating. lever which permits the two turntables to move independently of one another for easy threading; mono playback of 3-3, and 1-78 stereo tapes by internally governed mixing through the units output amplifier; semi-variable input volume control; and precision laminated combination record/playback head and erase head. Frequency response is 30-13,000 cps at the faster speed. The various models range in price from \$219.50 to \$287.50. For all details, write manufacturer

REMOTE CONTROL



The Stereosonics Universal remote control is designed to permit remote operation of any component or console system over distances of up to 800 feet. Models RM-2 and RM-3 permit continuous control of both volume and tuning as well as turning on and off AC power to components or appliances. It connects in minutes electronically or mechanically to any system. Any number of remote switch control centers may be used with a single slave motor chassis. HTE Stereosonics Universal remote control is available in both two and three channel models. The two channel model (RM-2) sells for \$75.00 and the three channel (RM-3) sells for \$95,00. For complete information, contact Stereosonics, Inc., Box 4205, Long Island City 4, N.Y.

ORRTRONIC AMPLIFIER/SPEAKER



J. Herbert Orr Enterprises, Inc., 71+Wesley Street, Opelika, Alabama, has introduced the S-2300 Clarion amplificr/speaker. This unit is a product of the OrrTron cs division of the company. It can be used as an auxiliary reproducer for tuner, phono player, tape recorder or TV; second speaker for stereo or extension speaker for bringing sound into other rooms; and it can also be used with a crystal microphone as a public address system. It is powered by an 8 watt "pushpull" amplifier; it has an 8" wooter and a 312" tweeter with built-in crossover network; and it has four multi-purpose tubes in an advanced 5 tube circuit. The switch and volume control is conveniently located on the side of the cabinet, and next to it is a separate wide range bass and treble control. For complete details, write to manufacturer.

PHONO TRIX PORTABLE



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Low cost, high quality recording tape, in boges or cam New Hyde Park, N.Y

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• Over 2500 different, 4-track & 2-track

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E NEW STENOTAPE



Introduction of the new, improved Phono Trix "Executive 88-B" battery-operated miniature tape recorder has been announced by Matthew Stuart & Co., Inc., 156 Fifth Avenue, New York 10, N.Y. This model permits immediate playback directly through the microphone while it is still connected to the input jack. This enables the user to hear his recording without the use of the earset or desk amplifier. There has been no change in the size or weight of this handsize recorder, which weighs only 2-3, lbs. including batteries. The #88-B becomes a miniature public address system when used in conjunction with the Phono Trix desk amplifier. Both sides of telephone conversations can also be amplified and recorded with the Phono Trix telephone adaptor. Price: \$149.95. Write Matthew Stuart for all details.

A new StenOtape dictating package has been designed to allow more than one individual to participate in the proceedings, and to do so when they will be sitting long distances from the unit. It allows them to record from multiple microphones placed at strategic locations. A self-contained transistorized built-in microphone preamplifier with input jacks allows for the use of addit onal mikes on long extensions without sacrifice of sound. This multiple microphone arrangement is used in conjunction with a transistorized, battery powered miniaturepostable dictation/transcription StenOtape Model 711. The StenOtape Model DX-711 will record for 2 hours and will deliver 60hours of operating time on batteries or unlinited time on AC power. For information and literature write to American Geloso Flectronics, Inc., 251 Park Avenue South, New York 10, N.Y.



Fig. 1: ". . . WILL TRAVEL!" The next best thing to a battery-operated portable is your own recorder with its microphone fixed up with an extra long cable. This way, though the recorder stays put in one room, you can do the actual recording most anywhere in your home.

So You Can't Afford A Portable Recorder?

by Tommy Thomas

... your regular recorder can help serve the purpose.

W ELL, cheer up, neither can most of the rest of us! A tape machine, to truly deserve the title of being portable, has more than just a handle on it, of course. It also has its own power supply so that it can be used immediately, without any special setting up or plugging in, and it can make recordings virtually anywhere. Very nice, of course, but also fairly expensive. And more than a little beyond the pocketbooks of those of us who would not *really* put it to a great amount of special use once the novelty had worn off.

So, being practical (meaning since I couldn't afford it inyway), some time ago I began using a "system" of recording with my regular tape machine, incorporating as many as possible of the virtues of the portable recorder. It's a wonderful system that almost any home recordist can easily put into action for just a few dollars, so perhaps you'll wish to incorporate some or maybe even all of the desirable features in your own recording.

Of first importance, of course, is the portability feature. The average home recorder has to be plugged into a 110volt AC wall socket somewhere. In the home, where most of us use our machines 99% of the time, this means that we can set up anywhere we want to ... even outdoors in the garden with the aid of an extension cord or two. The trouble with this, though, is that often something comes up (usually unexpectedly, of course) that seems worth recording around the house, and we're not *already* set up and prepared to record. It's necessary to move our machine to the "scene of action," and get it working first. And often this effort, slight though it is, is dampening enough so as to make us forget the whole deal in the first place. My solution to this problem, and it's been working out beautifully, was to find ONE place in the house for the recorder and to leave it there most of the time. In our home the den is more or less centrally located, so it works out best to keep it there. Then, so as to have the portability-effect that I was aiming for, I removed the short, 8-foot cord from my crystal microphone and replaced it with 32 feet of cable.

PLEASE NOTE! The accompanying photos (showing different crystal microphones adapted to long cables in various ways) illustrate the relatively bulky Belden #8410 heavy duty shielded mike cable that I personally prefer. This extra-rugged, rubber-covered cable is made more for stage and studio use, rather than for the average home recordist. But I like its extra abuse-resistance because I sometimes take my recorder to basketball games, bowling alleys and the like. Also, and this is even more important, the heavy cable handles easily in long lengths. Off-hand, when working with a long length of mike cable, it might seem like a good idea to save space by getting one with a smaller diameter . . . such as Belden's #8401, or even the ultra-small #8411. But I don't especially advise it. Although this smaller-diameter, very flexible microphone cable works great when only eight or ten feet are attached to the mike, it's so small that its very flexibility causes it to tangle and snarl up easily when you try to work with thirty or forty feet of it, stretched out around the house.

Now let's get back to the crystal microphone with its 32 feet of attached cable. This is long enough to enable me to wander around most of our house, recording as 1 go . . .

and I'm sure you could do the same thing. With the recorder operating in the den and a lot of shielded mike cable trailing behind, it's easy to ramble from room to room, striking up recorded conversations as you go. Let's say you're taping a "Letter To Grandma" and you want to include a few words from the members of your family. Easy? Instead of rounding them all up and gathering around the recorder, as you usually do, GO TO THEM! If your wife is busy baking in the kitchen, say, then go into the kitchen, say "*Hi*, you're talking to your mother," and pick up the latest news without much fuss or bother. Then, on the other side of the house, you find your daughter working on her nails in her bedroom, so you sit down beside her and chat a while. And so on, around the house, commenting as you go.

See, nothing to it!

I've been doing this so long now that my family is quite used to it, and the presence of a microphone in my hand doesn't even evoke a comment. I do make a point, though, of mentioning right away for whom this is being recorded. That way, whether it's to relations or friends off in another state, my wife and others can address the microphone directly and personally, actually talking to the person who will later be listening to the tape. Also, for the benefit of the listeners later, I keep up a running commentary of my own as I walk around the house, memtioning just which room I'm in, and usually what the person there is doing. This sets up an image that adds more fun and enjoyment to the final recording. You see, walking around with mike (only) in hand is so easy and more or less soundless that it's not readily noticeable when listening to the recorded results later. One moment you're in the kitchen and the next you're in the living room or bedroom or even outside, and the result can be a bit confusing unless you mention along the way just where you are and what's going on there.

Now, let's go a bit into what's involved in adding more shielded cable to your microphone. It's inexpensive and easy to do, but there are a few problems you can run into if you're not careful ... or maybe just plain unlucky.

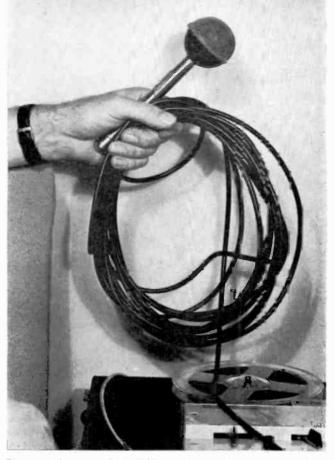


Fig. 2: It doesn't really look like much of an innovation, attaching 30 or 40 feet of cable to your regular mike, but you'll be quite surprised at how "portabilized" your recorder will become. Now, when an impromptu family happening demands capture on tape, it'll take but a minute to grab your mike and head for the scene of action.

But at the very worst, if you should run into trouble or if you don't wish to do the work yourself, your dealer should be able to fix things up for you for a nominal sum. Either way, you'd better know something about microphone extensions before going any further.

IMPORTANT! Most inexpensive home recorders have high-impedance (usually crystal or ceramic) microphones.



Fig. 3: "HI GRANDMA! I JUST FINISHED BAKING YOUR FA-VORITE PIE AND ..." This pleasant way of recording, because it's so easy and casual, soon becomes habit forming. In no time at all your showing up around the house, mike in hand, won't even arouse undue comment ... which makes for a wonderful candid effect on the finished tapes.



Fig. 4: Now, perhaps, without stopping your recorder, you wander over to your daughter's room on the other side of the house. Since she talks in a rather quiet voice, you hold the microphone quite close to her. This becomes an automatic habit, adjusting for proper mike volume by varying the mike-to-mouth distance es shown here.

Because of this high impedance, this type mike often runs into "trouble" when you add too much cable to it. The usual maximum length quoted as being best for good results is anywhere from 15 to 25 feet. For one thing, too much cable causes a voltage loss that sometimes produces an annoying hum which is added to your recording. This can be difficult to eliminate unless you know your way around an electronic circuit. Then again, and in spite of so-called quoted maximum lengths, I decided I needed 32 feet of cable on my microphone . . . so that's what I used and it worked out fine. In fact, I've used this length of mike cable (and longer, up to forty feet) on three different crystal mikes and with three different recorders without any bad effects. So unless you're unlucky you'll most likely be able to do this also. If not again, see your dealer. It's easily worth the small extra amount of money, getting this extension on your microphone.

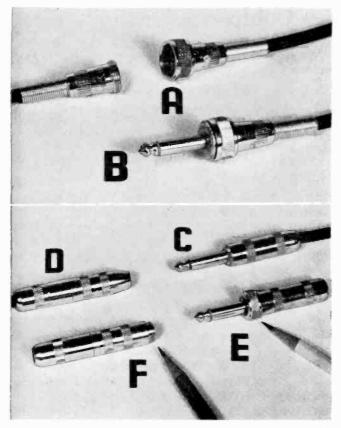
One other thing! Though it might not be readily noticeable at first, long lengths of cable added to a goodquality high-impedance microphone will cause you to lose some of the higher frequencies being picked up by the mike. Extra cable—beyond that originally supplied attached to your crystal or ceramic mike—acts as a capacitator that attenuates (cuts off) the highest frequencies completely. When recording speech there's no problem, as you never even get up into these frequencies that might be cut off. But if you're in the habit of recording music

Fig. 5, top: The easiest way to add a new extension to your microphone is by removing the original plug from the end of the cable, then carefully wiring the new extension onto the old (at arrow). Or, for more versatility, you can insert a set of shieldedcable connectors at this point, with a corresponding matching plug at the end (Fig. 8).

Fig. 6, middle: The neatest system is where you completely replace the original mike cord with one long length of cable. To do this, the microphone must be opened up carefully. Be sure to note exactly how the original wiring is accomplished, and don't let the soldering iron heat up and possibly ruin the mike element (crystal, especially).

Fig. 7, bottom: The final result is a neater version of the Fig. 5 wiring, with a single durable cable being used throughout. Again, if you wish, you can insert a set of cable connectors about eight or ten feet from the mike (at arrow). This makes a shorter cable available when the mike-recording of music demands the highest possible fidelity.





with the aid of your mike—and if your recorder is capable of capturing the higher frequencies—then you might want to make sure that you retain these upper-bracket sounds. The easiest way to do this is to arrange it so your extra length of shielded mike cable is added as an extension only, and can be readily removed at any time. This sounds like an obvious thing to do, and it's just what I did myself. Then after a few days of use I removed the cable connectors and replaced the two shorter cables with one full-length 32-foot cable. This was not only easier to handle, but also a good deal quieter. Before, the metal midcable connectors kept dragging on the floor, catching on doorways and other protrusions, and—worst of all—making "clanking" noises that were all too readily and most annoyingly picked up by my traveling mike.

You'll have noticed by now that I've left out all reference to such special items as expensive microphone pre-



Fig. 8, left, top: These are Amphenol "Series 75" cable connectors used for making a strong, reliable joint between two singleconductor shielded cables. The female connector "A" is at the end of the cable coming from the microphone, with "B" representing this same connection, but with a phone plug adapter screwed on for direct use.

Fig. 9, left, bottom: Also available for cable joining, if you prefer, are these phone-plug-type connectors made by Switchcraft. "C" is a regular 1/4" phone plug (which you may already have on your mike cable) and "D" is the corresponding female connector. For greater security, you may prefer connectors "E" and "F," which screw-lock together.

Fig. 10, above: For those of you who'd rather not make up your own mike cord, here's a 25' shielded cable extension cord complete with male and female connectors already wired and molded to the ends. Although it'll work well, if the connectors are the type that will fit your recorder mike, the lightweight cable tangles easily.

amplifiers and/or low impedance mike hookups. These can certainly be the answer to solving the problems of using long mike cables without engendering *any* losses along the way. Then again, and especially since these items are a bit on the expensive side, maybe you won't need them. Personally, I don't, and I'm getting along fine, recording everything from conversations to my wife's piano and guitar playing. Very likely you'll be just as satisfied.

So give it a try and you'll fast discover that you've improved the maneuverability of your recorder immensely. There's a lot of extra convenience and pleasure to be had for just a few dollars and a little bit of experimentation to find out which system is best for you.



Fig. 11: That's all there is to it! Just a few dollars and a little bit of experimentation to discover which system of cable extension is best for you. So give it a try, not only with your own family but with friends as well, many of whom will act decidedly more natural without a spinning recorder in sight to make them ill at ease.

Move Your Music Outdoors

by Bart Pierson

... with the summer ahead and outdoor activities favored, plan to move your favorite tunes outdoors too.

W ITH the advent of the outdoor season, featuring meals off the grill, badminton, swimming and the running fight with the insect population, there also comes the desire to move the music outdoors too.

Providing your neighbors share your tastes in music, the move may be accomplished without misery and in a number of ways.

First, of course, is to bring the recorder right up to the scene of the festivities. To make it easily moveable you can put it on a tea caddy or cart and trundle it right up to the desired spot.

The problem of powering the machine is simply one of securing a long enough and heavy enough extension cord to reach from the nearest power outlet to where the recorder is to be placed.

The "long enough" is not to difficult to take care of but be sure the cord is "heavy enough." As you doubtless know, long runs of wire of insufficient size offer the current enough resistance to drop the voltage at the business end where the recorder is plugged in.

If the drop is severe, there will not be enough current available to run the recorder at the proper speed and even tolerant neighbors might object to slow, off-key renditions. The best kind of cord to use is the heavy duty cables usually supplied for power equipment.

It is also possible to leave the recorder where it is indoors and pipe the music out to loudspeakers placed where desired. This leads to popping in and out of the house every once in a while to flip the tape over and play the other track. Best bet is to make some tapes at a slow speed where you can play up to an hour per track without having to bother with the recorder. If you have four track stereo, all of which is recorded at $7\frac{1}{2}$ ips, you can splice a couple of reels together for the party and put them both on 7 inch small hub reels. This will give you thirty minutes in each direction.

If the recorder is left indoors, there is no problem should a sudden storm make its appearance for the speakers may be of the outdoor type, some of which, like ball point pens, are also guaranteed to work under water.

The recorder should be equipped with a cut-off switch that will stop it at the end of the tape or if the tape should break. Machines which do not have this feature may spray the living room with bits of tape whipped off the end of the reel. When you're up to your elbows in marinated beef you are in no position to drop everything and make a mad dash to turn off the recorder.

Just as things cooked outdoors seem to taste better so music outdoors seems to sound better. While the first may

be a bit of imagination, the latter is very true. Outdoors there are no problems with acoustics and reflections nor color added or subtracted by room surroundings. The music sounds much cleaner.

And if you go in for stereo, the results border on the incredible. We tried it using two outdoor-type speakers placed about 30 feet apart and about 100 feet from the listening spot. Wow!

We used ordinary lamp-type extension cord as transmission line and a twenty watt amplifier. The speakers were placed on the ground but they could have been hung in the trees if a permanent setup had been desired.

Most tapes have the proper amount of reverberation engineered into them and when they are played outdoors there is nothing to interfere. The result is the most realistic reproduction you can hear.

The same clean-cut effect was apparent over water with the speakers mounted on a dock. For community activities involving a beach, the speakers on the dock could be turned shoreward.

While on the subject of water, it seems to us that with a couple of underwater transducers (loudspeakers that will function underwater) it might be possible to get some startling stereo with one speaker mounted on each side of the pool. Needless to say, the speakers should be isolated from any possible short circuit that would render the pool electrified. It might even be possible to mount two regular loudspeakers in a waterproof covering and hang them underwater from the side of the pool. This should be a real novelty for the home swimming pool. It would seem that the sound traveling through the water to the ears of the swimmers should practically be like listening to stereo with earphones, or maybe even better.

Should you decide to use outdoor speakers and mount them permanently in place they can be fastened with lag bolts to the sides of buildings, or to trees.

If you fasten them to trees, always use galvanized iron screws and always drill pilot holes. This will prevent the wood from splitting and bar the entrance of moisture which eventually causes the tree to rot or cause infection. Spacing washers should be used between the base of the bracket and the tree so the base does not rub the bark.

Also do not run any bands around the tree as these will cut onto the bark eventually and cause strangulation. Just remember that the live part of the tree is in about the first inch beneath the bark so protect it from chafing or infection.

If you should decide to remove the speaker at a later date, perhaps to store it for the winter, remove the bolts from the tree and seal the holes with caulking compound.



Music sounds better outdoors. This is because there are no problems from acoustics and the sound comes through clear and clean. If the recorder is carried to the spot, as is shown in this picture, then be sure the connecting cord is heavy enough so that no voltage drop will occur. If the wire is small, the voltage drop will affect the operation of the recorder.

In running wires through trees, slack must be left to compensate for tree motion due to wind. Best way is to run the wires through pulleys attached to the tree. The wire may be terminated at the house with a strong insulated post. If the wires break then allow a loop to remain in the wire and weight it to pull the wire taut. When the trees move the slack will be taken up against the weight and there will be little or no strain on the wire itself. The weight should be hung from a pulley to allow full freedom of movement.

You can, of course, bury the wires in the ground and for this you should use plastic covered wire which is available from most good hardware or electrical supply stores.

The wires may be buried as deep as you feel like digging. If you have gardeners in the family, 10 or 12 inches beneath the sod should put them safely out of harm's way.

The wires can be terminated in a galvanized junction box at the speaker positions or jacks may be mounted in small galvanized or aluminum boxes positioned as desired about the premises. This way, speakers may be moved about. The jacks and wires should be protected against the weather and this can be done by mounting the jack inside the box with the open end of the box downward.

Among the advantages of outdoor stereo, with the speakers spaced apart as noted previously, lies in the fact that the listening area in which the stereo effect is perceived is large.

The outdoor-type horns have a very wide coverage and with them positioned 100 feet away, 10 feet closer to or farther away from one speaker makes practically no difference.

Sound drops off as the square of the distance and a move in the living room of 6 to 8 feet changes the sound in a ratio of 36 to 64. Outdoors to move from 100 to 102 feet changes the sound by a ratio of 10,000 to 10,404. This is a negligible change. So outdoor listening gives the stereo effect a much wider range.

We discovered one thing which we cannot explain in regard to outdoor stereo. As you walk toward the speakers, when they are placed 30 feet apart about 100 feet away, you reach a spot where the music blends into a solid sound and the whole body of the music seems to leave ground level and sweep into the sky. It is like nothing you have ever heard before and it gives the impression of a celestial orchestra playing magnificient music—but an unseen orchestra.

Possibly it may have been due to some sort of sound reflection due to the terrain, although the place in which we tried it out was at the edge of a woods with a small house about 100 feet from the speakers.

In selecting speakers for outdoor use, choose ones with a good sound spread. Some horns are made to project sound for great distances in a rather narrow beam, others have broader coverage. Of course, the speaker must be of the weatherproof variety.

You will find, also, that the frequency response spectrum of the outdoor speakers is not as great as that of indoor units of good quality but in most cases they are more than adequate. Your local electronics parts house will be able to offer you a selection from a number of manufacturers in the field.

Outdoor stereo is worthwhile and its well worth the trouble of stringing wires and hanging outdoor speakers. You can feed the signals from the tape recorder, stereo record player or FM stereo—or all three. Even if you don't go in for stereo, good mono music listened to under the open sky gives it a new dimension.

25 THINGS TO DO WITH A TAPE RECORDER

by Mark Mooney, Jr.

Drawings by Gladys Whittenburg

.... Here are 25 suggestions that can result in more fun, more use and more enjoyment

from your recorder.

RECORDING THE FAMILY



Just as most people keep a photographic snapshot record of the growth of a child, so the tape recorder owner should make a sound snapshot record.

This could begin, with hospital permission, from the very first cry and most probably would conclude with a wedding ceremony.

Because tape recording is relatively new, less than ten years old as far as general public use is concerned, people have not realized yet the tremendous memory value of sound.

The principle reason for taking photographic snapshots is to remember how a person looked at the time. Just as there is physical growth which a camera can record so there is mental growth which only a tape recorder can capture. The two combined complete the picture. The sound reveals the personality.

We don't like to think about it but, barring accidents, the older folks will be the first to leave us. Their voices should be included in the collection.

It might be a fine idea to make a recording when you make a photo snapshot. Dinner table conversation, bedtime story time, night time prayers, even school lesson recitations make excellent family-type recordings. Strive for naturalness in all family recordings. For shy people, use the interview technique to draw them out. Tapes should be edited and a master reel kept of the best material.

VOICESPONDENCE



Imagine being able to talk to someone in South Africa, Australia, Germany or any one of a number of overseas countries. With a tape recorder it can be done for pennies.

Your recorder becomes a door to the world when you undertake to voicespond with someone. This consists of exchanging recorded comments on small reels of tape using sound instead of the written word.

There are a number of international clubs devoted to fostering voicespondence between individuals. These clubs charge nominal dues for which the member receives club publications, can participate in club activities and also receives a directory of other members.

The directory lists name, address, recorders owned and subjects of prime interest. The usual procedure is to pick

out the name of a person whose interests are similar to your own and drop him a postcard asking if he would like to tapespond with you. If the response is favorable you record a reel of tape and send it to him. Staunch friendships and even weddings have come about through exchanging tapes.

Families who are scattered, with children off in college or married, find the recorder and tape exchange an excellent means of maintaining close contact with a minimum of fuss. Retired grandparents living the width of the continent away from the grandchildren have recorded bedtime story tapes which are played when the youngsters are tucked into bed at night.





There is no better way to learn a foreign language than through the use of the tape recorder. This has been amply demonstrated for the language labs now found across the nation in modern schools are composed of batteries of tape recorders, enough so that each student can have his own.

The biggest advantage in the use of tape for language learning is that it offers you the opportunity to hear yourself. This is of critical importance for it enables you to compare your pronunciation with that of the native speaker and to make immediate correction of any errors. This enables you to learn rapidly and correctly.

In conjunction with a short wave radio, the recorder may also be used to make foreign language tapes for studying the spoken word. Language records may also be copied on tape. The advantage in this is that the recorder may be started and stopped, or rewound, when studying a particular sequence, a feat which is impossible with a record player.

Those recorders which will play one track while recording on a second track offer the best opportunity for language study since the lesson material can be placed on one track and the student responses on the other. When both are played together immediate comparison is obtained.

SOUND FOR SLIDES AND MOVIES



Your home screen need no longer be a "silent screen" if you own a tape recorder. Sound for both home movies and slide shows can be put on tape to be played with the showing of the film or slides. In fact, many companies make synchronizing devices which operate automatic projectors from signals on the tape. This makes a completely automatic slide show and you can join your own audience if you wish.

The narration covering the slides should first be written out after the slides have been put in the desired sequence. The tape is then voiced, music and sound effects added, etc. and then the whole show is run through to check for timing and pacing.

Tape recorders can be used to capture the sound for movies when the picture is shot but lip synch without special equipment is very unlikely. The sound may later be dubbed to magnetically striped film if you have a magnetic sound projector.

If not, the recorder may still be used. Check points should be established between the beginning or ending of scenes in the film and the music or narration on the tape. By varying the speed of the projector so that the check points always meet, fairly good synchronization can be achieved. This system works quite well when simple music and narration make up the sound.

TIMING OPERATIONS RECIPES ON TAPE



Anyone who has ever developed a color film, or accomplished any process requiring a large number of steps which must be done in sequence will doubly appreciate the value of a recorder.

By making a tape containing the necessary step by step instructions with the voiced instructions spaced the proper time apart on the tape, such processes become easy to follow. The time between steps may be filled with music to make the interval pass most pleasantly.

Likewise, recipes which are complicated may be placed on tape and, instead of trying to hold a cookbook open with hands full of flour or other ingredients, the voice from the recorder tells you the next quantity and step in the process. As with the processing tapes, the intervals may be filled with music.

Since most recorders are accurate to within seconds on a long run of tape, they can be used to time almost anything.

The tapes are home-made and are easy to make. Simply read each step from the instructions or recipe allowing the proper time interval to elapse between them. Music may be fed on the tapes from a record player or radio, stopping the music to voice the instructions. This avoids making splices later. If the timing is critical the tape should be checked by running it through the recorder and checking it with a clock or watch.

IMPROVING SPEECH



Any tape recorder is a merciless critic. It can only play back what has entered the microphone, without fear or favor.

Thousands of people have been registered surprise and many times, dismay upon hearing themselves as others hear them. Those seeking to improve their diction and vocabulary have made a recorder their constant companion and, in most all cases, the improvement has been marked.

Bad speech habits do not seem to become apparent until we actually hear them from tape. Then the nasal tones, slurring or plain bad grammar show up with great clarity.

Practice for speeches to be given to groups is also best done with a recorder. By hearing the speech beforehand, you can tell where it must be tightened up, where something humorous would add to the interest, where more drive or emphasis should be placed. The final result is always a better presentation and more compliments from the audience. If you put yourself to sleep with a recording of your speech you can be doubly sure a real audience will suffer the same way.

If the speech must be memorized, such as ritual material for lodge meetings or ccremonies, etc., the tape recorder becomes a most patient teacher willing to repeat again and again without complaint.

MUSIC



Fully half of the recorders purchased are used for the recording or playing of music in the home.

In this respect the recorder is superior to any other means of music reproduction for tape has more "hi-fi" than records. In addition, tape retains its "hi-fi" characteristics indefinitely while records gradually deteriorate through repeated playings.

Recorded stereo tapes may be purchased which bring the finest stereo music into the home. There are now more than a thousand different titles from which to choose.

In addition to the purchase of tapes for playing on the recorder you may also tape from disc records when they are new and play the tapes instead of the discs. In this way the top quality apparent on a good disc on its first playing will be maintained.

By means of tape you can make up musical reels that suit your own tastes. Music suitable for background use in the home, music for dancing, music for just listening may each be put on a separate reel by splicing the tunes together.

MUSIC PRACTICE



The tape recorder is an invaluable aid to learning how to play any musical instrument. Being able to replay the music at any time and over and over again it becomes possible to spot very small errors—or big ones, and correct them.

By recording the lesson material when the teacher is present, it is possible to have the benefit of the teacher's examples between lessons.

By keeping a progress tape, that is by taping practice pieces as they are perfected, a record of the accomplishment of the pupil can be kept. This tape can be recorded over a period of months, or even years, and should be kept for this purpose alone. In-between and practice recordings should be done on another tape or tapes.

As each new piece is added to the progress tape, the recording should start on the blank tape after the last piece recorded. This will save making splices. If you don't mind the splices (and they are easy to make and will hold indefinitely) then you can make the recording for the progress tape on any reel and splice it on to the end of the tape.

When making the recordings the microphone should be pointed toward the source of the sound *i.e.*, the bell of a trumpet, the sounding board of a piano, the strings of an instrument, etc.

SOUND EFFECTS



Back in the golden days of radio broadcasting the sound effects man was very much in demand. On him depended many of the illusions that lent reality to the broadcast.

Fires, crashes, marching troops, slamming doors or the noises of the jungle all had to be produced at the drop of a hat. He had to be a real inventor many times to find something that sounded like the real thing to the microphone.

Making a library of sound effects for use in little theater work, or in recording your own plays, or just for fun can be a fascinating pastime.

There are many effects which can be secured directly from the objects themselves, such as a phone bell, glass breaking, the whirr of a vacuum cleaner. There are others which must be created, like the sound of a building crashing, or the tramp of marching feet.

Real-life sounds can be recorded by using a self-powered portable or a recorder mounted in an automobile with inverter power. Created sounds can easily be recorded at home.

The sounds may be kept on small 3" reels, indexed so that you can quickly find one when needed.

RECORDING WEDDINGS



One of the highlights of life is the wedding ceremony, either our own or the shared experience when one of our children is wed.

The purchase of a recorder is worth this alone for a tape of the wedding ceremony becomes more precious as the years pass by.

In making wedding recordings the project should first be cleared with the church in which the ceremony will be held. Permission granted, the next step is to determine where the recording equipment may be set up without being conspicuous. The microphone should be placed as close as possible to the point where the vows will be said. The recorder may be placed in an anteroom off to one side if such is available. Mike extension cords should not run over 25 feet or some loss in quality will be experienced.

The recording volume control should be adjusted to keep the level at the proper point to balance the voices and the organ or the soloist. Since the actual ceremony seldom takes more than 20 minutes, a single track on a 7" reel should be enough at the $7\frac{1}{2}$ inch per second speed and will be more than enough at the $3\frac{3}{4}$ speed. Long play tape, which will run 45 minutes on one track at the higher speed will provide a margin of safety. Just make sure you don't get caught with the tape running out in the middle of the ceremony. Tape copies may be given as a wedding present.

STAGE PRODUCTIONS



One of the biggest problems in little theater work is the production of off stage sounds at precisely the right moment and from precisely the right point.

With a tape recorder the problem is completely solved. All sound effects are taped and spliced in sequence with leader tape between each segment. On the leader tape may be written the act and scene number and the cue.

Behind the scenes, separate loudspeakers are mounted as necessary and these are connected to the recorder by plugging the one to be used into the external speaker jack. A more elaborate method would be to make a switch box to feed any speaker by merely throwing a switch.

During the performance, the operator of the recorder follows a script of the play with all the sound effects plainly marked. As a cue comes up, he plugs in the appropriate speaker, left, right or middle and presses the play button. The sound is then heard by the audience.

Most of the sound effects, such as telephone bells, door slams, etc. can be recorded around the home. More elaborate effects, such as thunder storms or jungle noises can be dubbed to the tape from commercially available sound effects records. The recorder can also be used to provide music between scenes and at intermission.

PARTY GAMES



The recorder can be the life of any party you let it attend.

One of the favorite tricks is to hide the microphone and record the guests without their knowledge. This can be dangerous and, if you plan to do this, be sure you play the tape back to yourself before springing it on the party. Friendships have been broken over a lot less.

Better yet is to use the recorder for such things as recording a zany script, with each of the guests taking part. Also, by recording many household sounds close up, by recording well known speakers from the radio or TV, or well known bands, you can make quiz games which are quite entertaining.

Another thing that brings lots of laughs is to interview each guest separately in another room. The trick is to put a question on the tape such as "What do you think of the new bridge?" The recorder is then stopped. When the person comes in you ask for something entirely different than that which is on the tape such as "Describe that old rickety bridge over the creek." You record their answer to this. Of course, on playback, the question is followed by the off-beat reply. This can become quite hilarious. The recorder can also provide music for dancing and background music for the eating time.

ON THE MOVE AFLOAT AND ASHORE



Because a recorder is unaffected by external motion it remains as the best instrument for providing music or other entertainment on boats, planes and automobiles.

Some portable recorders can be plugged into the cigarette lighter outlet for power, others require the installation of an inverter to convert the vehicles' battery power to 110 volts AC.

But however it is done, it is worth doing. Thousands of medical doctors, for instance, subscribe to Medical Digest which consists of a weekly reel of tape containing the latest in medical research. This they can play while making their house calls and thus make use of otherwise unproductive time.

With a recorder in the car, you can also study while going back and forth to work if the material has been put on tape.

The recorder will also provide you with music of your choice without commercials or other interruptions.

By making the recorder mobile you can increase its usefulness to you.

RADIO AND TV RECORDINGS



With the recorder connected to a radio or TV set you have an ear to the world. History, comedy, music, news, sports are all yours at the push of a button.

Going to be away when a favorite show takes place have someone at home record it for you. Home team heading for the pennant?—record the important games. A spaceship being launched?—your recorder will preserve all the sounds.

Recording from radio or TV is easily done. Most recorders come with an accessory cord one end of which is attached to the loudspeaker terminals. The other end of the cord is plugged into the radio phono input on the recorder. Simply follow the directions in the instruction book that comes with the recorder.

Better yet, if you plan to do any extensive recording from radio or TV is to have your serviceman install a jack on the set. Then all you need do is to plug into it and into the recorder, without fuss or bother.

One of the best takeoff points is at the volume control of the set rather than the loudspeaker. This connection should be made by a serviceman unless you're electronically inclined. Shielded wire should be used and a jack mounted in a convenient spot on the set.

In a pinch recording may be done by placing the mike in front of the loudspeaker but this is not as good as making an internal connection on the set for room noise will be picked up too.

CREATIVE RECORDING



Like the camera, or brush and paints, in the hands of the artist, the recorder can be used creatively to make pictures—in sound.

What is summer like in sound? Or winter, or spring and fall? How about a sound picture of your home with the barking of the dog, the whirr of the oil burner, the voices of the people, the sounds of the door that squeaks and the hundred and one other things that all add up to your house—in sound.

Advanced users of tape recorders can create "tape recorder music" by altering tones, slowing or speeding the tape, using echo effects. Tape recorders have even appeared as soloists with a symphony orchestra playing their own kind of weird music.

Creative recording is challenging. It requires thinking —and doing, it requires imagination and, many times, perseverance.

Just as an author rewrites his manuscript several times before it is published, so the creative recordist will have to review and alter his tapes before he is satisfied with the result.

Creative tapes may contain narration, sound effects, voices and music, all interwoven to create the effect or paint the aural picture so that it is vivid in the mind of the listener.

VACATION RECORDING



With the advent of self-powered portable recorders which can be carried like a camera, the recorder now can be taken anywhere.

Even if a home-type machine is used, together with an inverter power supply, it is still possible to make recordings of the high spots of your vacation trip.

If you are going on a cruise, the problem is simple for the cruise boats have power outlets just as homes and hotels do.

Since it is possible to wreck a recorder by plugging it into a DC outlet, it will be necessary for you to check the current sources available where you are going. The steamship line or tourist agency should be able to tell you. If not, the Department of Commerce, Washington 25, D. C. puts out a booklet "Electric Current Abroad" which gives the voltage and frequency of the current in various countries.

Travel tapes, combined with slides or movies of the trip make the show complete and much more real than either of them alone.

Be sure to record more than you know you'll need while you're on the trip then edit the tapes down to make a good sound-picture story of the trip.

BUSINESS RECORDING



Tape recorders have wide application in business ranging from such obvious uses as dictation to inventory taking and field reports.

A tape recorder installed in a car enables salesmen

to make immediate notes on each call and he can even dictate reports as he drives from one call to the next.

A recorder present at conferences affords a means of sending the actual meeting to branch offices and field men. This saves hours of transcription time and a great deal of expense.

Taking inventory with a tape recorder shortens the process, cuts down on shut-down time and is more accurate. The person making the inventory simply records each item on tape and the tapes are later transcribed to the inventory sheets and priced by a secretary.

Talking, point-of-sale displays, such as talking refrigerators or automobiles help sell more products and again, the sound comes from tape which is actuated by a floor mat switch or electric eye.

Of course, tape is at the heart of the computers which are now keeping the books of many banks, business firms and government agencies. Tape also is used to guide machine tools that turn out intricate parts. You can easily find many uses for a recorder in your business.

PUPPET SHOWS AND VENTRILOQUISM



Anyone who has put on a puppet show knows the real meaning of being busy. Not only must the puppets be manipulated and kept track of but the lines must be memorized and spoken as well—and often in several different voices.

How much easier it is to put all the vocal parts on tape and let the recorder do the work. The script for the show can be recorded and any sound effects desired can be added to give extra punch to the presentation.

The puppeteer then needs only a cue sheet to follow as a double-check as to which puppet should be doing what and when.

By mounting a small speaker in a dummy, anyone can become an accomplished ventriloquist. The wires from the dummy should be run to a plug on the end of a short cord. The chair should have a jack mounted on it into which the plug fits and from the jack concealed wires are run to the external speaker outlet of the recorder.

You will have to memorize the script but the part spoken by the dummy is on tape. The recorder is started and you take your seat and plug in the connection without being noticed by the audience. Leave enough blank tape to give you time. The dummy then speaks and from there you can carry on the conversation. You can even drink a glass of water while the dummy sings!

EXTRA INCOME



There are a number of ways in which your recorder can be a source of extra income.

Recording the voices of children whose parents do not have a recorder is one way. The candid microphone technique works well here and the tape, after editing can be sold to the parents or discs can be cut from it and the records sold in an album.

Recording weddings is another source of extra money. If you tie in with a local photographer to record the sound while he makes the pictures you can secure many leads. A top notch sample of your work will help make sales.

You can also take inventories for stores or other establishments or do conference recording and transcribing. Many top-notch secretaries are now confined to the home because of small children. These women can turn out business letters dictated on tape by those who do not need the services of a full-time secretary.

Renting tape recorders and tapes to those who do not own a recorder also is a means of extra dollars or you can produce a radio show on tape for one of your local broadcast stations. You can round up the sponsors yourself and sell the produced tape to the station or, if you have a good idea for a show, the radio station may be able to sell it.

CHURCH RECORDING



Because a recorder is so versatile, every church should have one.

It can be used in choir practice, to play back the singing and spot places that need improvement. It can be used as a dictation instrument by the minister or priest in preparing his sermons and can later be used to record the sermon (and the entire service) which the church secretary can then type up for the record.

The tapes made can then be taken out to shut-in members so that they may hear and profit by the service. The tapes and machine may be moved from one shut-in member to the next in sort of a round-robin.

In the Sunday school, with its many classrooms, the tapes can furnish the music for singing. These can be recorded by a pianist or organist thus effectively spreading the talents of one individual over a large number of classes.

The recorder can furnish music for social events and even power loudspeakers in the steeple from a chime tape on Sundays.

Bible stories can be read or dramatized on tape for use in the classes and the recorder used to give the "audio" of audio-visual presentations.

These are only the highlights. There are many, many more uses.

LOCAL HISTORY AND GENEOLOGY



In every community there are a number of "Old timers" who can remember back to the days when community was little more than a gleam in a developer's eye. There are also many old folks who were intimately connected with important historic events of a national nature.

Making tapes of the reminiscences of these folks will

provide a lasting record of the old days of which they are the last connecting link.

Similarly, family old-timers have many tales to tell of the antics of ancestors and they can trace the family back should you be interested in geneology.

By getting the historical facts on tape you not only have a factual record in actual voices but can use the tapes later should you desire to transcribe the material to written form.

FOR THE CHILDREN



In any home where there are young children, the recorder can save hours and hours of parent's time and provide entertainment for the kiddies as well.

Take the matter of reading from a picture book, for instance. What you do is read the books on tape, giving instructions on the tape as to when to turn the page, where to look for some particular feature, etc.

On a rainy day when the youngster is restless and you are busy, simply plug in a pair of headphones in the external speaker outlet, slip them over the child's ears and hand him the picture book. The tape, in your voice, will keep him interested. You don't have to use headphones, of course, but they do help to concentrate the child's attention by cutting down on other sounds—and they also spare you hearing yourself talk for an hour or so.

Children of reading age can be amused by letting them read the funnies or comic books on tape, acting out the parts. Put the recorder on slow speed to get the most mileage from the tape. Most children are perfectly capable of operating a recorder after a bit of instruction.

You can also go modern by recording sound effects for them representing jet planes taking off, rockets being launched, etc. to which they can apply their imaginations.

Needless to say, the use of the recorder is no substitute for you, it just helps when you're busy.

USING THE RECORDER FOR STUDY



From kindergarten to college the recorder is one of the most versatile study aids that has ever been developed.

Through its use in reading, speaking and similar subjects, pupils have made remarkable advances in their grades.

In learning material by rote, such as multiplication tables, poems and similar material, the recorder serves as a teacher which never loses patience.

Even in advanced studies the making of an aural outline is an excellent practice. As the lesson material is studied from a book, the recorder is kept handy. Each salient point is spoken on the tape. A separate tape is kept of each subject. These are added to lesson by lesson.

When exam time rolls around, the tape is played back and there is a complete outline of the course. By listening to this all of the important points will be heard.

For learning a multiplication table the tape is made by saying "two times two is—" "three times two is—" etc. the student responding to the blanks. The student should make his own tapes thus reinforcing his learning. Quizzes on the lesson material may also be placed on tape. The question should be followed by the correct answer. The question is played, the tape stopped, the answer given and then the tape started to check the correctness of the answer.

RECORDING FOR THE BLIND



One of the most worthwhile uses to which a recorder can be put is in making recordings for the blind. Some of the tape correspondence clubs foster this activity for their blind members and one organization *Best Selling Books for the Blind* furnishes blind folks with the latest books on tape at nominal charge.

While the Library of Congress has hundreds of books for the blind on disc records, these, for the most part are standard works, they cannot supply topical material.

Greatly appreciated by the blind are tapes of current magazines of all descriptions that fit in with their interest.

It has been found that reading for the blind is slightly different from just reading aloud and recording it. Their minds are very active and are able to absorb information rapidly hence the reading speed should be kept up and not permitted to lag.

Naturally it should be as expressive as possible.

Those who have done reading for the blind have found it to be a very gratifying experience. Your local workshop for the blind will be able to help you get started. The slow tape speed is adequate and the larger reels cut down on the number of times the tape must be threaded through the recorder.

HUNTING VANISHING



If recorders had been available twenty-five years ago and you had said to someone "I am going to record a train because someday they will no longer be heard" that person probably would have thought you were a candidate for the looney bin. Trains disappear? Impossible!

Yet, today, the steam train is hard to find, and so are a lot of other sounds of yesteryear. The clop, clop of the horse pulling a wagon, the clang of the trolley car bell, the steam calliope that led every circus parade. The chants of the stake drivers putting up the circus tent (now its done by a truck).

Many, many of the common sounds of today will likewise disappear and probably much sooner than we think. The telephone dial sound is a common one yet already the labs have developed a push button system which makes no sound. Even the telephone bell itself may be on the way out to be replaced with something more pleasant and more effective.

The collection of sounds which are on the verge of disappearing is of the first order of importance... and will provide the most challenge.

To be a sound hunter you will need a high quality battery operated portable recorder, or you can use your regular recorder with an inverter in your car to supply the current and a long mike cable so you can get close to the source of the sounds.

FIX IT YOURSELF

by Rexford F. Mortimer

.... many recording difficulties can be cured by home remedy.

THE major portion of dissatisfaction in a good clear taping is due to the mishandling of the instrument. The majority of the persons using a tape recorder make one bad basic mistake in not allowing enough recording volume. Nearly all better grade machines are now so designed that if properly used, full record volume will still be several decibles below head overload. It is unfortunate that people have the wrong conception of the function of the record preamplifier-its basic function is NOT to increase volume but to convert current so that a carrier current from the bias oscillator will carry the current produced by the sound to the recording head. It may even be said that due to the very very small amount of current used in the head, the preamplifier instead of amplifying the sound, at times reduces the sound. It is true that the lower the record volume that can be used, the lower will be the signal-to-noise ratio, but if one uses too low a recording volume then the signal-to-noise ratio will increase on playback. It is for this reason that most tape recorders are so designed that the proper recording level is the volume control turned to 3/4 of its maximum capacity. This applies both to the microphone input and the phono input (some recorders have a single input with both level inputs incorporated into a single jack, using a three-contact plug with a resistor inside for the phono or high level input, but the volume adjustment remains the same).

One of the big curses of bad tuping is tape itself as well as the machine. Most faults can be corrected by the operator if a few simple rules are observed and common sense is used. The three big curses that befuddle a tapist are (1) wow, (2) flutter, and (3) drop-out. It has been previously stated that flutter is a rapid wow. This is not true as they are two entirely different things. Let's consider each of these separately and how to correct them.

WOW-Wow is just exactly what it says and sounds just that way, as if one were playing a disc that was badly off-center. The cause of wow is in the tape drive mechanism and 90% of the time it is dirt and gum in the bearing of the capstan (or drive shaft); it can also be caused by oil on the drive belts or sticking brakes. It takes much patience and diligence to take the tape deck out of its case and separate the transport from the electronic components. Most shafts are fastened onto the flywheel with a set screw, but there are some in which the shaft and flywheel are made in one piece, but is held in place in the bearing by either a set screw or a C-washer. One can usually see the grime on the capstan. Clean with a linen cloth or paper towel so as to not leave a speck of lint. Lubricate and reassemble, taking these precautions: (1) make sure that the drive belt is on the flywheel, and (2) that the belt is properly aligned in the speed change arm. If there is an idler between the motor and the capstan, remove this, clean and lubricate also; in fact clean and lubricate any rotating part between the motor and capstan. If possible and it is recommended by the manufacturer, lubricate the motor bearings. CAUTION—do not get any oil or grease on any rubber parts of the mechanism; if so, clean off with either cleaning fluid, lighter fluid, or alcohol. Check the rubber belts for aging as this too can cause slippage and wow.

FLUTTER-Flutter is not a rapid wow as some believe as it is caused by and acts different from wow. In flutter, the tape actually flutters and at times is even visible to the eye; this causes a rapid jerkiness as the tape passes against the tape head. This sounds like a baritone trying to reach high C and the result is a muddy note. If the flutter is severe enough one can hear the flutter on the taped sound, because it will have a fluttery sound. All this is caused someplace in the tape feed mechanism and usually is found in the spindle of the feed reel turntable. Other things like grime in the odometer which is connected to either the feed reel or take-up reel, the spindle of the take-up reel itself, dirt or gum on the pressure pad, dirt and gum on the tape head, capstan, and pressure roller, and finally badly warped reels all can cause flutter. It is much easier to remove the spindles of the feed and take-up reels and the odometer than it is to remove the drive capstan, but the principles of cleaning and lubrication remain the same. As the spindles are being cleaned it is wise also to check the brake mechanism at the same time if a brake is used to hold tension on the tape. It is even wise at times to replace the pressure pads instead of attempting to clean them (these can either be cut from "Kiro" felt or from felt corn pads obtainable at any drug store and glued on the pad holder), but in cases like the Ampex the entire new felt pad must be ordered from a repair shop. Gum can accumulate on tape heads from the use of cellophane tape to the point where it is impossible to record with the head. All the standard procedures of cleaning heads and the rubber pressure roller must be observed. Badly warped reels will cause the tape to hang and produce undue tensions which are released at unwanted times. It is far cheaper to use a new tape reel than attempt to repair a warped reel.

DROP-OUT—The third major curse and at times the biggest in clean tape recording is what is known as dropout or spots on the tape that fail to record. These can be caused by any one of five different things or a combination of them: (1) bad splicing, (2) creases in the tape, (3) slick spots on the tape, (4) bad original tape, (5) tape puncture. Let us consider each of these individually:

(1) Bad splicing—the use of cellophane tape for splicing has been a curse ever since people knew that tape could be spliced together. This type of tape has a soft adhesive that will "bleed" out the edges and get onto other parts of the tape and SHOULD NEVER BE USED NOT EVEN FOR HOLDING THE END OF A TAPE TO A REEL TO KEEP IT FROM UNWINDING. This

gum will cause the oxide to peel from the binding. Also in using good splicing tape, the splice must be properly done or no splicing tape irregardless of the manufacturer can hold and stop the "bleeding." Even splicing tape will slip and "bleed." The fundamental simple rules that most people using splicing tape do not use are (1) NEVER allow the finger to touch the adhesive side of the splicing tape on applying the splicing tape to the diagonal cut, and (2) after the splicing tape has been applied to the cut and before it is trimmed, roll it down tight with the blunt end of the cap of a fountain pen or some similar object until all the tiny white air bubbles disappear. This is necessary for if it isn't done and the binding to the tape secure, the tape will slip and cause a gap at the diagonal cut and the adhesive will bleed through and cause as much damage of pulling oxide from the binder as will the ordinary cellophane tape. And one cannot record on something that isn't there.

(2) Creases are bad for good recording for this prevents the tape from falling tightly and flatly against the head. If one were to accidentally step on the end of a tape and crease it, it is far better to cut off that crease than to be disappointed in a "drop-out" on a rare and precious tape session. Creases are also caused by too tight of a tape tension especially at the beginning of a tape where the tape sinks into the lock-in grooves of the reel hub. It is always best to cut off this first two or three feet when such ripples are found.

(3) Slick spots are caused by "characters." These characters are the ones that like to stop the tape motion by grabbing the feed reel. This causes the capstan to spin against the stopped tape resulting in a slick spot. There is no tape eraser or degausser made that can rearrange the molecular structure of the oxide in a slick spot—it is a dead spot. The only way to correct this is to cut it out.

(4) Bad tape is the price one has to pay for these bargain-basement white box tapes that are lauded to be first class hi-fidelity tape. This tape is new tape, but it is also made from reputable manufacturers' rejects. Reputable manufacturers thoroughly check the tape before it is split for winding and if one spot on a big sheet indicates a fault the entire thing is thrown away or discarded for first class boxed tape. It is this material that finds its way into the bargain-basement items. At times one does get a perfect reel of tape, but when one has one and only one chance at a taping session, it is far better to stay with name brand tape. If one is desirous in using inexpensive or very low cost tape, it is suggested that the "used" tape be investigated. At times this is even guaranteed by some companies.

(5) Tape puncture is something that is seldom encountered any more since recorders are now so designed that they can't be overloaded. Puncture acts the same as a slick spot. The pucture is caused by such excessive recording magnetism that the molecular arrangement of the oxide particles is "frozen" into a fixed state and no degausser can erase this, nor can it be seen with the naked eye. Even home-made degaussers if not properly made can exert too strong a field and cause a "freeze" on the entire tape that can't be corrected.

In a back issue of TAPE RECORDING there was an article describing the use of a substance called "Mollub Alloy" to lubricate old scratchy records. This person has tried it with disappointing results, but he did find that it is a superior lubricant for lubricating the deck mechanism of a recorder. (Mollub Alloy may be purchased from The John N. Thorp Company, Inc., 78-80 Middagh Street, Brooklyn 1, New York. The cost, subject to price change, is \$1.95 a tube, but since this is postpaid, the company has a minimum order of \$2.00 which means one must purchase two tubes. But it is worth every cent.)

Quite often one tapes and finds his recording volume gradually diminishing and may think he has a bad tube. Let's face it, friends, seldom does the electronic circuit go bad; it is usually the tape head, and on stereo models this can be costly. But this does not rule out circuit failure. Likewise at times one may experience a spotty recording with the volume suddenly and sharply dropping and sputtering cut back in. This is caused by a loose connection in the patch cord or connecting cable of either the microphone or the phono; usually this is found in a broken ground connection near the plug on either end. A soldering iron and a small bit of *resin core* solder will remedy this.

On turning the machine on and switching the transport into motion (play) one may hear a loud "bong" sound; this is caused by a resonating tube which picks up the switch sound through the tube itself and amplifies it. With the machine on, by tapping the tubes with the rubber end of a pencil one can readily detect which tube is the culprit, take it out and replace it.

One hard thing to spot on a tape recorder is the source of AC hum. Most often this is heard when the machine is idle, but if the hum gets so loud that the playback is irritating and if the hum is recorded on tape, then the machine should be taken to a service man to locate the offending ground circuit. This can take several hours to locate and cost several dollars as it is something that is very elusive.

If one insists on salvaging the good bits of spotty reels of tape by cutting out the drop-out, here is a simple procedure to follow: Bulk erase the reel of tape to be checked, splice a length of leader stock to the end of the tape and feed it onto a take-up reel (the size of reel depends on how spotty the offending reel is; as an example for a 5" reel with about a dozen spots use several 3" reels). The author used several 3" 8mm cine projection reels. Feed the leader stock through the tape slot and anchor on the take-up reel so that leader stock remains over the tape head. Begin the music, place the record circuit in activation by depressing the record button, set the tape in motion and increase the recording volume. In this fashion one can record at the very beginning of a tape. Use a long play selection if possible at a high tape speed to conserve time and pick up the drop-out spots. Fill the tape reel with music, even if the tape must be stopped and the musical selection has to be repeated. Rewind tape and set in play motion and closely listen to it for the drop-out. Immediately shut off machine and lift tape from slot— usually one can visually spot any offending place on the oxide surface of the tape. Cut tape at this point. Remove reel being checked and replace it with a small 3" reel. Rewind onto this reel. Cut off leader and save for the next check. Set the 3" reel containing tape to one side for later bulk erasing. Now bulk erase the big reel, add the leader stock and feed into slot as before and repeat the performance. It must be assumed that the person cutting out drop-out has a sensitive ear or he wouldn't

(Continued on page 34)

NEW PRODUCT REPORT



NORELCO CONTINENTAL 100 RECORDER

. . . single speed, self powered portable features ease of operation. Fine quality.

O NE of the most important features for a portable recorder to have is sturdiness. Portables are intended to be carried about and will get more jolts and knocks than a home machine.

The Norelco Continental 100 is sturdy! We found this out the hard way when it accidentally dropped to the floor from desk height while unpacking it from its shipping box.

It is disconcerting, to say the least, to see a recorder dropping, knowing that not even a shoestring catch can save it from hitting the floor. It hit with a thump and bounced, its polystyrene case showed no effects at all. The specs state that the unit is fully shock-proof. It is!

Fully loaded with six regular dry cells the recorder weighs but 8 pounds. Depending upon use, the battery life should be about 20 hours, figured on an average use of four hours per day. Use of moderate volume settings on playback will extend battery life.

The batteries are inserted through a punel on the lower side of the recorder. The battery well has a diagram which shows which way to put them in.



- Product: Norelco Continental 100 Tape Recorder, Model EL3585
- Manufacturer: North American Philips Co. Inc., 230 Duffy Ave., Hicksville, L. I., N. Y.

Price: \$129.50

On the front of the case is a combination battery meter and record level indicator.

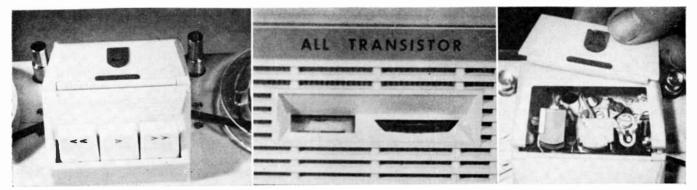
The condition of the batteries is shown when the play button is depressed. If the needle is in the green on battery test, the cells are OK. If it goes into the red, they should be replaced. For recording indication, the needle should be kept in the black with only an occasional excursion into the red segment on the peaks.

Next to the indicator is the volume control which serves for both record and playback volume.

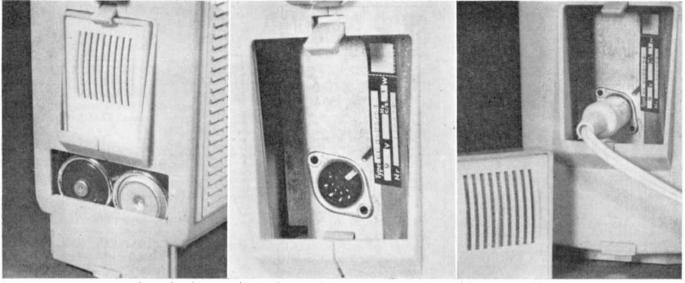
The operating controls are all grouped on the top of the case and we found them to be very convenient. The tape motion buttons, record/play, fast forward and rewind are at front center. The record interlock safety button is to the rear of the head housing and must be depressed when the record/play button is depressed to put the machine into record.

The reels are covered by a clear plastic housing which permits them to be seen at all times.

To release any of the buttons from their "in" position, it is necessary to push them slightly forward to unlock them. Depressing one button will not cause another to pop up, as on most home pushbutton recorders.



Left: tape motion controls are grouped at front center on top of recorder. Record safety interlock is at right rear with ornamental matching piece to the left. Center: battery condition and record volume meter is to left of volume control wheel. Right: head covers may be removed for cleaning heads. This photo shows rear cover removed; front cover also is removable.



Left: microphone is mounted in side of case and is held by small latch. Batteries are inserted by opening slide below mike. Unit takes six D cells. Center: five-pin connector is found in well behind mike. Both the mike cord and accessory cord fit this connector. Right accessory cord plugged in. This is used to feed signals to recorder from radio or phono or to power an external amplifier or connect to another recorder.

The moving coil dynamic mike and its cord fit into a well in the end of the recorder. It is held by a catch which is lifted to remove the mike.

In the same well is a five-pin connector which serves as both a mike input and an input for radio or phono recording and also as an output for feeding an amplifier or other recorder. The proper connecting cord is provided.

The machine is dual track and runs at a constant 1% ips speed. It has a four-inch speaker which gives very good volume on playback.

The recorder measures $10\frac{1}{2}'' \times 3\frac{3}{4}''' \times 7\frac{1}{2}''$ and has a convenient

carrying handle which may be removed if desired. The case is gray in color with an ivory front and buttons. The record safety interlock button on top has a matching piece to the left of the head housing but this is for balance in design and has no function.

The top of the head housing is easily removable for cleaning the heads and tape guides.

The recorder has seven transistors and features push-pull amplification in the final stage, producing an output of a little more than a watt.

We were pleasantly surprised at the quality of sound produced by this machine at the $1\frac{7}{8}$ inch per second

speed. The microphone has good sensitivity and at normal speaking distance the recording volume need not be turned up very far to get the proper indication on the meter.

We found the recorder easy to operate and very convenient. All controls being on the top and readily accessible, plus the use of all transistors makes it possible to get the machine into immediate action.

It performed well under normal motion and, as we mentioned, it is very sturdy and well built.

If you are considering the purchase of a good portable, it will be worth your while to consider this one.

Don't be a "NOW AND THEN" reader! Get TAPE RECORDING Every Month!



If you're a casual reader of TAPE RECORDING, if you buy the magazine just occasionally for a particular feature, now is the time to change, time to make TAPE RECORDING a reading habit. Every issue contains informative and interesting articles written just for tape recording enthusiasts, in addition to regular features such as Crosstalk, Industry News. Tape Reviews. New Products. Tape in Education, Shop or Swap, etc. Each issue also contains a New Product Report on the newest of recording equipment tested for performance by our staff. Think how convenient it will be to have all 12 issues per year delivered right to your door. Fill in the handy coupon NOW!

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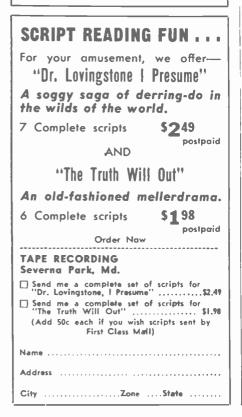
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(Continued from page 30)

bother with this in the first place; also a good instrumental musical selection of nearly a constant pitch must be selected to properly evaluate bad spots in tape. At times one may find tape so full of drop-outs that it is best to discard the entire reel of tape. These good sections saved on 3" reels can be used for short numbers, or even spliced onto a large reel when only a short extra piece is needed to round out a complete reel. The music is fed to the recorder from either another recorder or a disc turntable, using a long playing musical selection and

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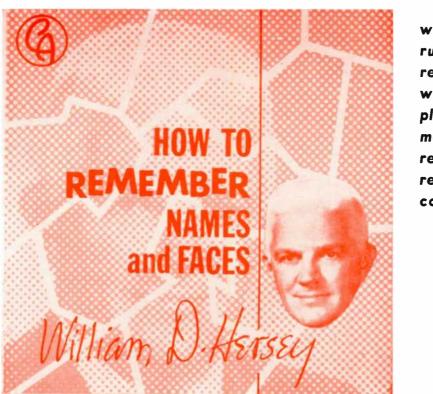
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setting the recording speed as fast as possible.

If the taping sounds bad, remember that it may not always be the machine at fault. It can also be the operator and it can also be the tape itself. It is always best to check the recording on a tape especially at the beginning to make sure it is properly recorded before mailing or storing. Many people copy odd bits of music or comments onto a master reel of tape, and before erasing the original make sure it is properly recorded on the master reel.

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