

TAPE RECORDING

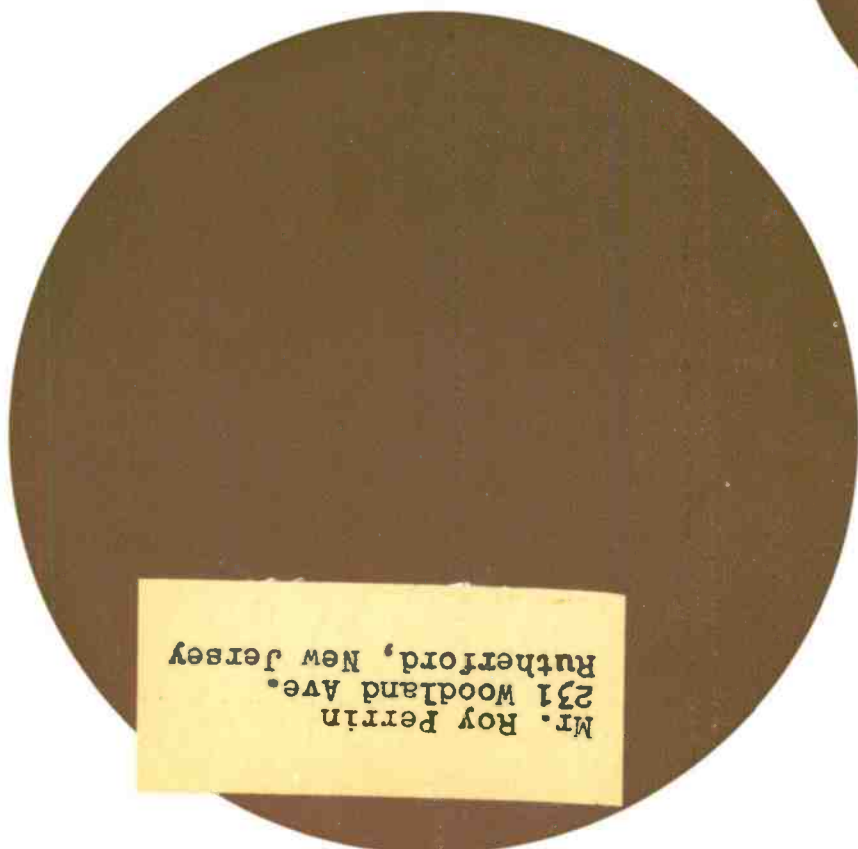
**COMPLETE GLOSSARY
OF RECORDING TERMS**



**PROFESSIONAL TAPES
FROM BUDGET EQUIPMENT**



**"PROFESSIONALIZE" YOUR
RECORDING MIKE**



Mr. Roy Perrin
231 Woodland Ave.
Rutherford, New Jersey

**July 1962
35c**



what kind of recording tape should I buy?

Have you ever been uncertain as to which kind of recording tape to use? If so, the following facts may help you decide what kind of tape will give you best results. Most leading manufacturers of tape offer two types—at two prices: acetate based (sometimes called plastic) and polyester based. The acetate based tapes cost less.

strong or super strong

Although both tape bases have ample strength for recording purposes, polyester is much stronger than acetate. It is so strong, in fact, that polyester will stretch before it will break. This would be a distinct advantage except for the fact that a stretched tape affects the quality of reproduction, creating a condition known as "wow." The result is a wavering of pitch that can't be corrected.

Acetate, on the other hand, will snap before it stretches. If such a break should occur, it can be repaired handily—without loss of tape length or reproduction quality.

long play or standard length reels

In order to get the advantage of extra long play, thinner tape base must be used. Such reels must be handled with extreme care. While both polyester and acetate based tapes are available in long play reels, polyester offers the advantage of greater strength.

However, since long play tape is thin, there is always the possibility of "print through" of loud passages. This happens when the tape is reeled, and the loud passages come in close contact with the tape immediately under and above it. This "print through" manifests itself as a second sound or echo, and is particularly noticeable if the passages affected have a low sound level of their own. As a general rule: if the length of play is vital to your purposes and fidelity of reproduction is of lesser importance, then long play reels are what you require. But, all things considered, standard length reels are advisable—particularly if you want best results in terms of high-fidelity reproduction.

what about tape life?

Tape life depends on many factors. The film base is only one of them. Such things as quality of manufacture, the adhesive which binds the iron oxide particles, and the care used in playback and storage all affect tape life.

Both polyester and acetate bases have proved their ability to last through the years. In this respect, both types can be considered as long lasting materials.

what about price?

Acetate based tapes cost less than the polyester type. But this fact alone is not sufficient to explain the overwhelming popularity of acetate in tape recording.

When you buy recorded reels: classical, popular, shows or seasonal offerings, most often you'll find them recorded on acetate based tapes. Recording companies like its fidelity . . . its protection from "print through" . . . its resistance to distortion through stress . . . its all around quality. And you will, too. Celanese Plastics Company, 744 Broad Street, Newark 2, N. J.

Celanese[®]

Celanese does not manufacture recording tape. It produces and supplies acetate film for this purpose to leading tape manufacturers.

Celanese Plastics Company is a division of Celanese Corporation of America.
Canadian Affiliate: Canadian Chemical Company, Limited, Montreal, Toronto, Vancouver
Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 522 Fifth Ave., New York 36, N. Y.



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.

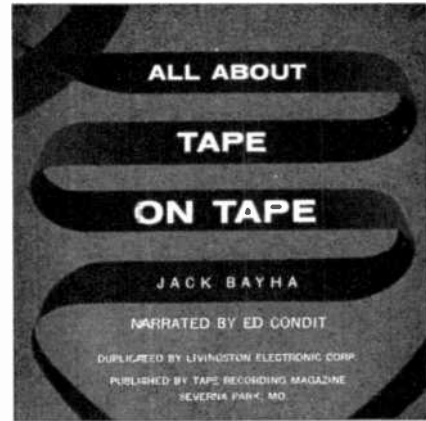
... authored by Jack Bayha ... a book to which you listen ... the first book specifically designed and produced on tape instead of the printed page. ... Now you can actually HEAR what good recording, over-recording, wow, flutter, distortion, wrong mike placement, etc., sound like. A test section allows 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 Recording, 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.

7 1/2 IPS, 7" Reel, Dual Track
\$6.95

3 3/4 IPS, 5" Reel, Dual Track
\$5.95

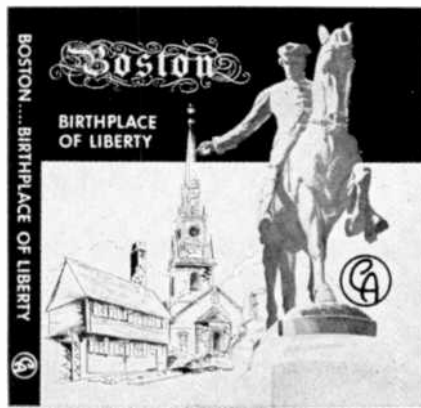
Including a 28 page manual of illustrations



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.

\$6.95



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 1/2 ips.

\$5.95

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 million dollars worth of pleasure from this tape.

\$9.95

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, 7 1/2 ips and booklet giving full directions for use of the tape.

\$9.95

New! TAPE RECORDS

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- 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
- 4—Jazz—Dickie Thompson Quartet—Laura—What is This Thing Called Love
- 5—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', Ebttide, Autumn Leaves
- 9—Dinner-Dance—Fred Martin Radio Orchestra—Fiddle Fiddle, Blue Tango, Serenata
- 10—Hammond Organ—Bill Thompson—Touch of Your Hand, I Won't Dance, Smoke Gets in Your Eyes

TAPEBOOK DEPARTMENT

TAPE RECORDING MAGAZINE

Severna Park, Md.

Please send me the following:

- All About Tape on Tape, 7 1/2 ips.\$6.95
- All About Tape on Tape, 3 3/4 ips.\$5.95
- Boston, Birthplace of Liberty.\$5.95
- How to Stay Alive on the Highway.\$6.95
- Add-the-Melody Tape, 7 1/2 ips.\$9.95
- How's Your Hearing.\$9.95
- MONAURAL MUSIC TAPES.each \$1.00

(circle numbers desired)

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ENTERTAINING?



THIS TAPE FUN KIT CAN BE THE HIT OF YOUR PARTY

The Tape Fun Kit is composed of whimsical, hilarity provoking, laugh-filled 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 KIT NO. 1—\$2.00

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TAPE RECORDING

Severna Park, Maryland

Please send me Tape Fun Kit No. 1. I enclose \$2.00. Send First Class. I enclose additional.)

Name

Address

City Zone State

TAPE RECORDING

VOL. 9 No. 8

JULY 1962

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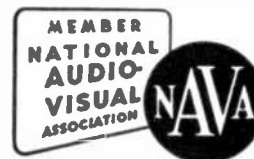
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LOWER THE COST OF FUN WITH VERSATILE TARZIAN TAPE

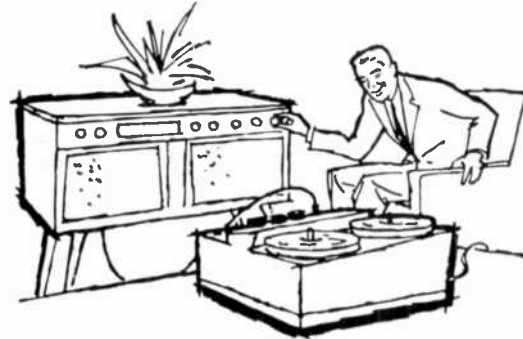


Talk Long Distance for Only 10¢ per Hour

You can record a 24 minute conversation (at 3¾ i.p.s.) on a 225-foot reel of Tarzian Tape and mail it anywhere in the U.S. for 4¢ postage. No one worries about the telephone bill...and the same reel can be used again and again with no decrease in sound reproduction quality. That's a lot of friendly communication—the easy Tarzian Tape way. And you get a handy mailing carton as well!

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Make a Priceless Family Heirloom—The Easy Tarzian Way

Next time the family gets together for a special occasion... and everytime a high point comes along in the lives of the children and grandchildren...be sure to record the events on long-lasting Mylar*-base Tarzian Tape. The tape will last indefinitely—and so will your pleasure—with a priceless heritage of voices and events unique to your family. Such moments can seldom be repeated, but thanks to Tarzian Tape they can always be remembered.

Buy, Borrow or Beg

Buy, borrow, or beg a reel of Tarzian Tape—either Mylar or acetate base, on a 3, 5, or 7-inch reel, and compare its sound reproduction to that of *any other tape* on the market. Your own ears will tell you why Tarzian is the best buy for modern tape recording. While you're at it, send for our free 32-page booklet, "The Care and Feeding of Tape Recorders".



*DuPont trademark for polyester film



SARKES TARZIAN, INC.

World's Leading Manufacturers of TV and FM Tuners • Closed Circuit TV Systems • Broadcast Equipment • Air Trimmers • FM Radios • Magnetic Recording Tape • Semiconductor Devices
MAGNETIC TAPE DIVISION • BLOOMINGTON, INDIANA
Export: Ad Aurlama, Inc., N. Y. • In Canada, Cross Canada Electronics, Waterloo, Ont.

NEW TAPES

★—Fair

★★—Good

★★★—Very Good

★★★★—Excellent

CLASSICAL

Reviewed by Robert E. Benson



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

TCHAIKOVSKY: Serenade for Strings
BORODIN: Nocturne for Strings
BARBER: Adagio for Strings
VAUGHAN WILLIAMS: Fantasia on Green-sleeves
Philadelphia Orchestra conducted by Eugene Ormandy
COLUMBIA MQ 431
4-track, 7 1/2 ips
\$7.95...44 mins.

More suave performances than these are difficult to imagine, and the musical content here will surely appeal to many. The Borodin and Vaughn Williams works are pop concert favorites, but the *Adagio for Strings* is another matter, with more emotion in its seven-plus minutes than perhaps any other music. Ormandy and his orchestra play it magnificently here, with searing intensity and it is easily the highlight of this new tape. It is unfortunate that big cuts are made in the first and last movements of the Tchaikovsky *Serenade*; this would have been near definitive had it been complete.

Reproduction throughout is sumptuous, with very marked separation of the strings.



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

"OUVERTURES FRANCAISES"
Detroit Symphony Orchestra conducted by Paul Paray
MERCURY ST 90191
4-track, 7 1/2 ips
\$7.95...39 mins.

An attractive collection of French overtures, combining the well-known *Roman Carnival* and *Corsaire* overtures of Berlioz with the less-played but worthy *Le Roi D'Ys Overture* by Lalo and *Patrie Overture* of Bizet. The Lalo Overture is brim full of exuberant melody and should be heard more often. Bizet's *Patrie* has little to offer musically, although hi fi enthusiasts will delight in its military percussion flourishes. Paray and his fine orchestra offer idiomatic performances of all four works, and no one is likely to quibble about interpretation or orchestral playing.

The sound on this tape is rather puzzling, as it seems to lack some of the high frequencies heard on its disc counterpart.

Perhaps because of this lack of highs the bass sounds over-emphasized, resulting in an unnatural, boxed-in quality. The low strings are definitely out of proportion to the rest of the orchestra, and trumpets do not come through clearly enough, particularly at some crucial moments as in the climaxes of *Roman Carnival*.



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

VILLA-LOBOS: The Forest of the Amazon Bidu Sayao, soprano; Symphony of the Air and Chorus conducted by the composer
UNITED ARTISTS UATC 2210
4-track, 7 1/2 ips
\$7.95...47 mins.

The Forest of the Amazon consists of twelve movements adapted from music Villa-Lobos composed for the film *Green Mansions*. This music ranges from savage native dances to introspective love songs. There is much of great beauty in this score, particularly the poignant soprano interludes, affectingly sung by Bidu Sayao, whose association with the composer goes back many years. Those listeners familiar with their old recording of the composer's *Bachianas Brasileiras No. 5* (now available on Columbia ML 5231) will surely want to have this new tape.

The Symphony of the Air and the unidentified chorus perform splendidly under the direction of the composer.

The sound is exemplary, once one becomes accustomed to the overbright acoustics, and unresonant sound of the chorus. One of the most beautifully packaged tapes to come our way.



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

POULENC: Concerto in G Minor for Organ, Strings and Timpani
STRAVINSKY: Jeu de Cartes (The Card Game)
Berg Zankochian, organist; Everett Firth, timpanist; Boston Symphony Orchestra conducted by Charles Munch
RCA FTC 2077
4-track, 7 1/2 ips
\$8.95...45 mins.

Here is a second four-track taping of the Poulenc *Concerto*. This is in no way inferior to the previously issued Angel version (ZS 35953, \$7.95), but some listeners may prefer Angel's more expansive sound. Both performances are superb, and the deciding factor may well be the coupling.

Angel included the premier recording anywhere of the same composer's *Gloria in G*, a fascinating work with many inspired moments. RCA gives us the first tape version of *The Card Game*, a ballet by Igor Stravinsky. This clever score quotes Rossini, Ravel and other composers, and represents Stravinsky in a satiric mood. This is a "ballet in three deals," and the characters are the face cards in a game of poker, with the Joker causing all of the trouble until at the end he, strutting at the head of a sequence in Spades, is beaten by a Royal Flush in Hearts. Munch reportedly is very fond of this score and gives it loving attention, with superlative playing by the Boston Symphony Orchestra.



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

FRANCK: Symphony in D Minor
Chicago Symphony Orchestra conducted by Pierre Monteux
RCA FTC 2092
4-track, 7 1/2 ips
\$8.95...39 mins.



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

FRANCK: Symphony in D Minor Le Chasseur Maudit
Suisse Romande Orchestra conducted by Ernest Ansermet
LONDON LCL 80082
4-track, 7 1/2 ips
\$7.95...55 mins.

We already have a serviceable four-track tape of this Symphony on the Livingston label, but that is easily eclipsed by both of these new versions. This is one of the "standard" symphonies and no tape library is complete without it. As expected, Pierre Monteux presents a forceful conception, with an expansive over-all view, and the Chicago Symphony plays magnificently in this, their first recording with him. Victor's sound is plush and big, although the extreme resonance blurs some details.

Ansermet's approach, while lighter in texture, is equally valid, and although the Suisse Romande Orchestra is not the equal of the Chicago Symphony, it performs very well here. As a bonus, the London tape includes the old-fashioned but exciting symphonic poem *Le Chasseur Maudit*, ("The Accursed Huntsman"). This is the second of Franck's symphonic poems, written in 1882, six years before the D minor

symphony. The music is based on a ballad by Burger, telling the story of a huntsman who refuses to pay attention to a church bell summoning him to St. Hubert's Mass. He rides through the crowd of worshippers, and for this is condemned to hunt throughout all eternity. The score abounds in horn calls, with orchestral effects certain to please the hi-fi enthusiast, especially when as well recorded as here. Based on the Symphony alone, the Monteux would be the preferred version, but as the London tape also contains the symphonic poem and costs a dollar less, the decision is an easy one.

Both the Victor and London tapes are superbly processed. Columbia has announced a tape version by Ormandy and the Philadelphia Orchestra; judging by its already released disc counterpart, it would be no better than either of the two listed here and, like the Victor tape, it contains only the Symphony.

SEMI-CLASSICAL



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

BONBONS AUS WIEN

Side 1: Chinese Galops (Strauss, Sr.), Kettenbrücke Waltz (Strauss, Sr.), Eisele und Beisele Sprunze (Strauss, Sr.), Styrian Dances (Lanner), Three Contredances (Mozart), Wiener Gemuths Waltz (Strauss, Jr.) Side 2: Four German Dances (Mozart), Eight waltzes and Ländler (Schubert), Champagne Galop (Strauss, Jr.), Die Werber Waltz (Lanner), Cachucha Galop (Strauss, Sr.)

The Boskovsky Ensemble, Willi Boskovsky, violin and director

VANGUARD VTC-1634

4-track, 7 1/2 ips

\$7.95... 48 mins.

Johann Strauss, Senior and Junior, Mozart, Franz Schubert, and Joseph Lanner were composers that really wrote beautiful music. Willie Boskovsky and his Ensemble, first deck men of the Vienna Philharmonic Orchestra, here present a group of rare old Vienna dances, in original scoring. If you like such music, you'll go for this in a big way, for the microphone work has been so skillfully done that the Ensemble comes to life in your music room. The strings are vibrant, full and recorded with remarkable presence. Nice dynamic range, too. Quite different and most enjoyable.—*F. N. West*

POPULAR



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

BRASS LACED WITH STRINGS

Sequence A: Love For Sale, Summertime,

Lover, Come Back to Me, Lover, Lonely Town, Trees, By Myself
Sequence B: Easy to Love, Let's Take the Long Way Home, Hello, Young Lovers, Without a Song, Glad to Be Unhappy, And the Band Played On

Vic Schoen and His Orchestra

RCA FTP-1072

4-track, 7 1/2 ips

\$7.95... 34 mins.

This "Stereo Action" tape runs the gamut for imagination and variety. Brass and strings are interlaced, for sure, but with widely different results. In some selections they combine to produce a spectacularly beautiful tone poem, while in others they create a wild out-pouring of dynamic range that not only amazes, but makes sure that the tone poems did not put you to sleep. It's an interesting combination of incongruities, recommended as a real show-off tape. Sound is clean, sharp and exceptionally well recorded.—*F. N. West*



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

DANCING ON SUNDAY

Side 1: Dancing on Sunday, Seven Songs, Little Boats From Hios, Don't Ask the Sky, I Love A Man, The Flower

Side 2: Margerita, Bring Me Wine, Somewhere My Love, Moon Garden, Dance Corfu, Like Our Love

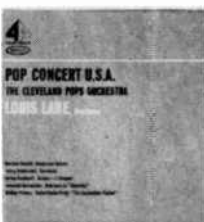
Music by Manos Hadjidakis and other Greek composers—Recorded in Greece

UNITED ARTISTS UATC 2231

4-track, 7 1/2 ips

\$7.95... 25:50 mins.

This album, recorded in Greece, features a wide variety of music popular in that country. Some tunes have been written by the composer of the award-winning score of "Never on Sunday," as well as those of other leading Greek composer-arrangers. Fast tempos and a new instrument, the "Bouzouki," combine to produce novelty and originality, but as far as dancing is concerned, you'll require a lot of pep and enthusiasm to keep up to the fast and furious pace of this music. If "the Greeks had a word for it," the word might be the "Twist."—*F. N. West*



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

POP CONCERT U.S.A.

American Salute (Morton Gould), Serenata (Leroy Anderson), Rodeo-3 Dances (Aaron Copland), Overture to "Candide" (Leonard Bernstein), Ballet Suite From "The Incredible Flutist" (Walter Piston) The Cleveland Pops Orchestra; Louis Lane, conductor

EPIC EC 808

4-track 7 1/2 ips

\$7.95... 39 mins.

Correctly titled, beautifully executed and U.S.A. through and through—Epic went all out to record this with life, presence, wide dynamic range and popular appeal. Aided by the new acoustical qualities of Severence Hall in Cleveland, Mr. Lane has conducted one of the most outstanding recordings of Americana music. Represented are works by Gould, Anderson, Copland, Bernstein and Piston, and each of these fine composers, using different techniques, has his own way of creating this type of music. Through it all there is a distinctively recognizable something that links them together. A very entertaining tape. There is a noticeable amount of tape hiss present.—*F. N. West*



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

VELVET BRASS

Side 1: You're Driving Me Crazy!, Skyliner, But Not For Me, The Man I Love, Cherokee, Me and My Shadow, Take the "A" Train, By the Beautiful Sea

Side 2: Am I Blue?, What's New?, Girl of My Dreams, My Buddy, I Can't Believe That You're in Love With Me, September Song, Out of Nowhere, Chinatown, My Chinatown

Jackie Gleason & His Orchestra

CAPITOL ZW 859

4-track, 7 1/2 ips

\$7.98... 36 mins.

If you like brass in all its subtle nuances, Jackie Gleason is the boy who can charm you. First of all, it should be said that the brass is subdued to the point where it is smooth and sweet, rather than blatant. Combine the soothing alto sax of Toots Mondello with the Gleason touch for warmth and feeling, add a danceable beat and you come up with a tape that has wide appeal. This was a great monaural disc several years ago when it was first presented. In stereo tape it's even greater. Capitol's sound is beautiful.—*F. N. West*



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

MUSIC FOR LOVERS ONLY

Side 1: I Cover the Waterfront, Some Day, If I Had You, I'm in the Mood for Love, Body and Soul, My Love for Carmen

Side 2: Alone Together, My Funny Valentine, But Not for Me, Love Is Here To Stay, I Only Have Eyes for You, Little Girl

Jackie Gleason and His Orchestra

CAPITOL ZW 352
4-track, 7½ ips
\$7.98...37 mins.

For lovers of soft, sweet, big band mood music Jackie has selected some of the top love tunes and played them in a slow tempo that is more for easy listening than dancing.

Taking full advantage of stereo, good recording technique and without resorting to immaterial gimmicks, he has produced an excellent tape. Bobby Hackett on solo trumpet, makes his presence appreciated in every number. It's all very sentimental and relaxing.—*F. N. West*



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

ROMANTIC EUROPE

Side 1: La Paloma, Under the Bridges of Paris, Lisbon Antigua, Swedish Rhapsody, London By Night

Side 2: Vienna City of My Dreams, Summertime in Venice, Wonderful Copenhagen, Wonderful By Night, Tulips From Amsterdam

Frank Chacksfield & His Orchestra
RICHMOND (London) RPE 45028
4-track, 7½ ips
\$4.95...34 mins.

Frank Chacksfield conducts a musical tour through the various cities of Europe and makes their music sound more romantic than ever.

The color and flavour of the melodies of the countries visited, is captured in rich, full sound that is typical of the Chacksfield Orchestra.

Well balanced stereo contributes to the all around quality of Richmond's lower priced line of tapes. One of their best.—*F. N. West*

SHOWS



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

FLOWER DRUM SONG

Overture, You Are Beautiful, A Hundred Million Miracles, I Enjoy Being A Girl, I Am Going to Like It Here, Like a God, Chop Suey, Don't Marry Me, Entr'acte, Grant Avenue, Love, Look Away, Fan Tan Fanny, Gliding Through My Memoree, Grant Avenue, The Other Generation, Sunday, Wedding Parade and Finale

Original Broadway cast
COLUMBIA OQ 433
4-track, 7½ ips
\$9.95...54 mins.

This delightful new musical by the two great names in show business, Rodgers and Hammerstein, is impeccably recorded by Columbia with the original Broadway cast,

and has lost none of its charm and appeal.

This colorful story of life and love in San Francisco's Chinatown abounds in catchy tunes with clever lyrics, tender love ballads and spritely dance rhythms. Every member of the star-studded Chinese-American cast gives an outstanding performance, with those of Par Suzuki and Miyoshi Umeki most enchanting.

The quality of Columbia's recording is exceptional, with expansive stereo, fidelity and presence that gives this tape a theatre-like sound that is almost like being there "in person." A helpful folder telling the story of the show is included. For lovers of show-music, this is a "must."—*F. N. West*



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

FLOWER DRUM SONG

Overture, You Are Beautiful, 100 Million Miracles, I Enjoy Being A Girl, Like A God, Chop Suey, Don't Marry Me, Grant Avenue, I Am Going To Like It Here, Love Look Away, The Other Generation, Sunday, Finale

Chorus and Orchestra directed by Jimmy Carroll
LIVINGSTON 4T-66D
4-track, 7½ ips
\$9.95...38 mins.

Another tape featuring the delightful songs from Flower Drum Song has been issued by Livingston Stereo Tape Library and the result is very good.

This firm, which pioneered some of the first two track stereo tapes, has done its usual fine job in recording this tape with nice clean sound and broad stereo effect.

The chorus and orchestra, directed by Jimmy Carroll perform all of the tunes from the show as capably as the original Broadway cast, and the voices are well adapted to the parts they portray.

A thoroughly satisfying tape.—*F. N. West*



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

THEMES FROM THE GREAT FOREIGN FILMS

Side 1: La Strada, Rocco and His Brothers, La Dolce Vita, The 400 Blows, La Ronde, The Third Man

Side 2: Rosemary, Never On Sunday, Anna, Riffi, Black Orpheus, Room At the Top

Leo Diamond, Harmonica and Orchestra
REPRISE RSL 1706
4-track, 7½ ips
\$7.95...31:40 mins.

There is certainly no scarcity of movie

theme and background music today as most recording companies have issued albums featuring some of the more popular of Hollywood's offerings. This tape offers a collection of themes from great foreign films, equally as interesting and melodic as their American counterparts.

The versatility of Leo Diamond and his harmonica are well displayed as he expands these short themes with his special arrangements to create an imaginative musical program. Backed by a fine orchestra and twin pianos, the tape provides an enjoyable movie travelogue. Recording and stereo effect are among the best.—*F. N. West*

RELIGIOUS



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

SONGS OF PRAISE

Side 1: A Mighty Fortress Is Our God, Whispering Hope, Nearer My God To Thee, The Lord Is My Shepherd, Abide With Me, Onward Christian Soldiers, Rock of Ages

Side 2: Eternal Father Strong To Save, Beautiful Isle of Somewhere, Jesus, Lover of My Soul, Jesu, Joy of Man's Desiring, Little Brown Church in the Vale, The Holy City

Mantovani
LONDON LPM 70048
4-track, 7½ ips
\$6.95...47 mins.

Over a dozen of the old favorite religious selections such as "Rock of Ages," "Holy City," and "Onward, Christian Soldiers," are beautifully recorded by Mantovani, assisted by a chorus and pipe organ. His interpretative genius combined with finesse and good taste make this a very rewarding tape.

London's sound and expansive stereo make the music seem alive. This tape might well be used as an inspiring musical program for church group meetings as well as family listening at home.—*F. N. West*

MARCHES



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

SOUSA ON REVIEW

Track A: The Rifle Regiment, The Pride of the Wolverines, Golden Jubilee, The Gridiron Club, New Mexico, Sesqui-Centennial Exposition

Track B: The Black Horse Troop, The Kansas Wildcats, Manhattan Beach, Ancient and Honorable Artillery Company, The National Game, The Glory of the Yankee Navy

Frederick Fennell conducting the Eastman Wind Ensemble
 MERCURY ST-90284
 4-track, 7 1/2 ips
 \$7.95...35 mins.

Frederick Fennel and the Eastman Wind Ensemble do themselves proud in this presentation of twelve of Sousa's marches. The Mercury "Living Presence" technique adds considerable realism to the offering since no gimmicks were used—the mikes were placed in the ideal spots and then the Ensemble played as to an audience. With each instrument in its proper place the result sounds like *real* band music.

Good rousing march music that thrills with every note, makes this a "must" for Sousa fans.—*F. N. West*

CAPSULE REVIEWS

CLASSICAL

LONDON LCJ 80079 DE FALLA: *The Three-Cornered Hat* Ballet ALBENIZ: Five excerpts from *Iberia*; Navarra Suisse Romande Orchestra conducted by Ernest Ansermet, with mezzo-soprano Teresa Berganza, 1 hr. 12 mins., \$9.95. An authoritative performance of the *Three-Cornered Hat* by the conductor who gave it its first performance in 1919. Ansermet excels in music of this nature, and London's sound is first-rate. A most desirable best buy in tape.

LONDON LCL 80093 HAYDN: *Symphony No. 83 in G Minor "The Hen"*; *Symphony No. 100 in G "Military"* Vienna Philharmonic Orchestra conducted by Karl Munchinger, 44 mins., \$7.95. The *Symphony No. 83*, with its occasional barnyard imitations, is the prize here, although both it and its companion, the well-known *Military Symphony*, would benefit from a more vital approach by the conductor. Pickup here is distant with a natural, pleasing stereo effect, but the bass is overly resonant.

RCA VICTOR FTC 2088 CHOPIN: Piano Concerto No. 1 in E Minor, Op. 11 Artur Rubinstein, pianist; New Symphony Orchestra of London; Stanislaw Skrowaczewski, cond., 41 mins., \$8.95. This is Rubinstein's third recording of this concerto, and is definitive, with some of Victor's finest engineering and immaculate processing.

VANGUARD VTC 1639 "LOLLIPOPS AUS WIEN" played by the Boskovsky Ensemble, 50 mins., \$7.95. First desk men of the Vienna Philharmonic directed by Willi Boskovsky play "an assortment of delectable dances of old Vienna, in original scoring." An enchanting tape of light-hearted music, recorded with stunning realism.

POPULAR

COLUMBIA CQ 343, I'VE GOT A RIGHT TO SING THE BLUES, Eileen Farrell, 34 mins., \$6.95. Eileen Farrell proves on this tape that she's really got a right to sing the blues. Possessed of a beautiful voice and sufficient musical knowledge and experience to interpret practically any type of music, it is somewhat unusual to hear such a voice moan the blues. With Luther Henderson and his orchestra combining their talents with those of Miss Farrell, the result is attractive and pleasing. Bold stereo, too.

COLUMBIA CQ 342, "RALLY ROUND THE BROTHERS FOUR," 29 mins., \$6.95. In this sequel to their first album, "The Brothers Four," the boys have a lot of fun singing folk tunes, love songs and amusing novelties, done with a fresh approach and new material. Musical accompaniment of guitar, banjo and bass is their own. Columbia's sound, fidelity and presence are exceptionally good.

COLUMBIA CQ 407, SENTIMENTAL

SING ALONG WITH MITCH, Mitch Miller and the gang, 34 mins., \$6.95. The success of any "Sing Along" tape is assured because the formula is foolproof. Mitch and his staff have that uncanny knack of picking the right numbers and presenting them in the right fashion, so that you just want to sing along. These might be considered on the sentimental side and are a happy addition to a long list of similar efforts.

KAPP KTL 41033, DONNYBROOK, Original Broadway Cast, Eddie Foy, Art Lund, Joan Fagan, Susan Johnson, 47 mins., \$7.95. Although this show closed after a short Broadway run, the tape is still good entertainment. This delightful Irish presentation based on the "Quiet Man," has catchy music and good voices, drama and pathos too, but these are enriching and in no way detrimental. Captivating tunes, well recorded and brilliantly done, with excellent stereo effect.

RCA FTO 5008, LA DOLCE VITA, Original Sound Track, 43 mins., \$8.95. The picture may be a prize winning Italian import, but this sound track recording is about as poor as any I have heard. Played by a small orchestra, the tape is a disjointed collection of excerpts from the film. The sound is badly recorded, with limited range, low fidelity and little or no stereo effect.

RCA FTP 1084, SOMETHING FOR EVERYBODY, Elvis Presley & the Jordanaires, 27 mins., \$7.95. The wonder boy is at it again. On the first or "ballad" side, he moans and groans through a set of sentimental songs, while on the "rhythm" side he shakes, rattles and rolls his way with the usual "beat" that generally drives the teenage set wild. In fact, this is the group that will go for this one, certainly not everybody.

"Dr. Lovingstone I Presume"

A soggy saga of derring-do in the wilds of the world

A zany script for your next recording party.

* * *

Four male parts, three female plus an announcer and sound effects man. Full directions for simple sound effects.

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postpaid

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 TAPE RECORDING
 Severna Park, Md.



"For your information friend, that is a crocodile."

CROSSTALK

from the Editors

EVERY NORMAL PERSON grows in two ways at the same time. The first is physical growth, the second is mental growth.

* * * * *

FOR ABOUT FIFTY YEARS anyone has been able to keep a record of the physical growth of his children through the medium of plain, ordinary, everyday snapshots. It doesn't take much of a picture to show how Jimmy is now bigger and more robust than he was last year. And a series of such pictures, made at regular intervals over the years will provide a complete record which, as the years pass by, becomes ever more valuable.

* * * * *

WITHIN THE LAST ten years it has become possible to keep a record of the mental growth of your children as well, and just as easily as making a snapshot. The tool, in this case, is the tape recorder. Snapshots in sound are just as much of the record of growth as are photographic snapshots.

* * * * *

FROM THE FIRST CRIES to experimental gurgles, to the first intelligible speech, the early prattle, to school days and beyond, it is all there to be recorded. You don't have to make a production of it, anymore than you make a production of a casual snapshot.

* * * * *

WHAT YOU RECORD will most probably not sound very important when you record it and play it back immediately. After all, you hear the same sort of thing day in and day out. Only through the passage of time can the recordings begin to reveal their true worth. . .and if you haven't made them earlier—you can't listen to them later.

* * * * *

EACH TAKE THAT YOU make should be identified on the tape with the time, date and circumstances. For instance you might say, "This is Thursday evening, June 15, 1962. Here is Nancy reciting 'Mary Had a Little Lamb'." An unidentified tape recording is worse than an undated photo because you cannot be sure who made it or where.

* * * * *

JUST AS PICTURES are mounted in a photo album, so the bits of tape that you make from time to time should be spliced together and made into one reel. It is best to establish a reel for this purpose at the start and simply add to it each time you make a recording. In this way you will have a chronologically correct sequence.

* * * * *

WHEN YOU HAVE RECORDED over a number of years, then is the time to go back over the collection and "program" it logically, cutting out the unwanted parts and making a smooth-flowing presentation with narrative, and musical bridges, so that the whole becomes an audible record of the child's growth.

* * * * *

THE PHOTO ALBUM or color slide collection might likewise be gone over with the idea in mind of having the pictures match the tape. If this is possible, just think of the sound and sight record you would have!

* * * * *

YOUNGER PEOPLE WHO are busy rearing a family, many times do not see the value of such a record until it is too late. The rapid pace of daily life sometimes precludes doing everything we would like and those things which are not concerned with the immediate present are let go.

* * * * *

IT IS NOT UNTIL the years have passed and the children are grown and gone their separate ways that the desire for a complete record really comes—and by then, of course, it is too late. Older people have experienced this and perhaps it might be a good job for the grandparents to take on the picturing and recording of their grandchildren. They generally have the time and would most certainly have the inclination. Since any number of prints can be made from a negative and tapes can be duplicated or copied, both the parents and grandparents can have the record.

* * * * *

ITS WORTH THINKING OVER. And the time is now!

INDUSTRY NEWS

AMPEREX, 230 Duffy Avenue, Hicksville, L. I., New York has issued a new 33 page condensed tube catalog of value to engineers. A free copy or copies may be had by writing to the firm on company letterhead.

MINNESOTA MINING AND MANUFACTURING COMPANY, St. Paul has developed a new "sandwich tape" called #282. It is designed for heavy duty applications such as language labs, etc. The oxide is coated with an extremely thin plastic layer which prevents it from contacting the heads and reduces head wear. The plastic coating is so thin it has no effect upon the frequency response of the tape.

ROBERTS ELECTRONICS, Los Angeles, Cal. reports a 267% increase in Roberts stereo recorder sales for 1961.

MAGNECORD engineer Howard Cederberg and Sales Manager Paul R. Bunker have applied for a design patent on an 8" diameter reel which will offer one hour of playing time. The reel is intended for use with 1 mil tape.

MEMOREX CORPORATION, 1180 Shulman Ave., Santa Clara, Cal. has published a 22 page brochure describing the company and its capability for manufacturing magnetic tape. Tape production will be for computer, instrumentation, video and telemetry systems and for exacting audio frequency applications. The new company has a completely air conditioned plant and the latest in tape manufacturing equipment.

BEL CANTO, Columbus, Ohio has contracted for the tape rights to the Philips Records catalog. The tapes will be available in both reel to reel and cartridge form. The initial release contains six selections according to Herb Mayer, Bel Canto Sales Manager. The Philips catalog is extensive and comprises many European recordings as well as some produced in the United States.

SONY CORPORATION of Japan is developing a recorder which will be about the size of a package of king-size cigarettes. If the unit goes into production it will be distributed in the United States by Super-scope, Inc. It is not expected for a year in the production model since only prototypes have been made.

MUSIC TAPES, INC., Chicago, has announced a new low priced line of tapes to retail at \$3.95 in addition to its regular \$7.95 line. The first release contained six tapes. President of the firm is Pete Fabri, former head of Bel Canto.

STANCIL-HOFFMAN, Hollywood, Cal., has received a contract for 50 communications recorders which will be used to record air to ground communications at major airports. The units feature plug in

assemblies and have four channels on 1.4" tape. The panel size is 8 3/4" x 19" for rack mounting. Recording and playback amplifiers are transistorized and are likewise plug-in.

REK-O-KUT COMPANY, New York, N. Y. will market a new recorder. The unit will sell for about \$1,000 and will be designed for broadcast use as well as by advanced recording hobbyists.

WESTINGHOUSE ELECTRIC CORP. will bring out a "new concept" in tape recorders in conjunction with Teleprompter Corp. It is claimed that the tape handling mechanism is of new design and puts practically no strain on the tape.

NATIONAL AUDIO VISUAL ASSOCIATION show will be held at the Morrison Hotel, Chicago, Saturday, July 21 through Wednesday, July 25. This show has become increasingly important in the field of education.

THE INTERNATIONAL SOUND FAIR will be renamed the World's Fair of Music and Sound and will be held in McCormick Place, Chicago, August 31 to September 9. Attendance is anticipated to be on the order of 300,000, including 12,000 dealers.

LIVINGSTON AUDIO PRODUCTS, 1259 Highway 46, Parsippany, N. J. has started a tape club which will market tapes of all lines in addition to their own library. As an introductory offer they are sending a 100 minute stereo tape, 4-track—or its equivalent to new members. The club plan will make available both two and four track tapes.

FICO ELECTRONIC INSTRUMENT CO., 3300 Northern Blvd., L. I. City 1, N. Y. are offering their tape transport in either kit or wired form for OEM design or manufacturing purposes. The unit has three motors and three head positions. Transports are available in 7 1/2—3 3/4 or 3 3/4—1 7/8 ips speeds.

FERRODYNAMICS CORPORATION, Lodi, N. J. has made available a plastic reusable mailing container for 3" reels. All Ferro-dynamics "Correspondence" tapes will be packed in the new package. A 3 1/4 inch reel will also be made available. The 3" reels will be available in all standard combinations of base materials and base thicknesses and the 3 1/4 inch reels will contain 600 feet of .5 mil Mylar.

AMERICAN CONCERTONE, 9449 W. Jefferson Blvd., Culver City, Cal. has announced that its 1961 sales exceeded any period in the firm's 15 year history. New models introduced this year are further expected to increase sales. Floor space has been expanded by a third and the engineering department has been doubled over the last four months.

RENT STEREO TAPES

- Over 2500 different, 4-track & 2-track
- No deposit on tapes rented
- Postpaid 2 to 5 day delivery (48 States)

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1523AA, Jericho Tpke. New Hyde Park, N.Y.

MERITAPE

Low cost, high
quality recording
tapes in boxes or cans

DOMINION ELECTROHOME INDUSTRIES, LTD., Kitchener, Ontario, Canada has entered the market with two models of tape recorders.

The Canadian sales of tape recorders for last year were estimated at \$6,000,000 with 90% of the machines being imported.

KRS ELECTRONICS, Palo Alto, Cal., manufacturers of stacked multiple cartridge tape machines has appointed 16 dealers and sales representatives in the nation. The unit is available in three or six cartridge models.

AUDIO DEVICES, 444 Madison Avenue, New York, N. Y. has added substantially to its warehouse capacity in both the midwest and Pacific coast. This will enable the firm to make prompt deliveries on all its products. Shipments between the factory and warehouses are made by Audio's "Tapemobile" a 30 ton transcontinental truck which plies continuously between factory and warehouses.

REEVES SOUNDCRAFT has made available to dealers an attractive display stand that holds the full line of Soundcraft tapes. They are also offering a "premium pack" composed of two rolls of tape, one of which is recorded with a number of Hoagy Carmichael classics including Stardust, Rockin Chair, Two Sleepy People, Up a Lazy River and other favorites. The premium pack is priced at two rolls of blank tape plus a dollar. The tape runs 30 minutes and is available in either two or four-track. This is the third premium pack produced by Reeves, the other two being "Cole Porter Swings Easy in Stereo" and "Sweet Moods of Jazz in Stereo."

TAPE CLUB NEWS

Sighted Reader Service

Recently the Voicespondence Club had two requests from blind members of the club for someone to read and/or interpret Spanish. Since the club could not find anyone in its file of readers who could or would do this, it appealed to the membership. If there is any member who can read or interpret Spanish, the club requests they contact Melba Peters, 40 E. 158th Street, Harvey, Illinois. Perhaps by this time the services of some volunteer have already been acquired, but in any event it would be well to have names and addresses of potential Spanish readers on file.

Any club readers who have completed their assignments, are asked to notify Melba so that a record of availability may be noted on their file card.

Indiana Recording Club Meeting

About 60 Indiana Recording Club members and guests met at the World War Memorial on March 18 for one of the best meetings yet. With Dale Spurgeon in charge of the program, gadgets were everywhere. Some of the "helps for taping" exhibited at the meeting were as follows: Dale had a splicer, leader tape, splicing tape, write-on tape, wire strippers, plugs, adapters, mini-mix, mono and stereo plugs, tube puller, multiple dubbing cord, extension for ear-phones or speaker, tape head cleaner and lubricant, homemade speaker, head demagnetizer, and timer; Elizabeth Kelley had New Horizons USA and World Guide books; Cole Watkins had an envelope for overseas mailing; Elmer Friman had a phone pickup; and there were many others. Ralph Turner furnished a Norelco 400 for demonstration of the gadgets and for background music.

During the business meeting, David Mervis volunteered to help with the stamp collection (used USA and overseas commemoratives) for the Blind and Handicapped Fund. Mrs. Helen Kuzel now heads a committee to provide coffee and cookies for the meetings.

World's Fair Exhibit

C.T.R.I. has also been invited to exhibit at the Seattle World Fair in August. The international theme of tapesponding will be emphasized at the World Fair looking into the future when tapespondents will be seeking new friends on different planets. Space tapespondence is now being discussed among many of the members.

Reorganization of Welcoming Committee

The Welcoming Committee in Catholic Tape Recorders, International has been reorganized. The committee, formerly headed by Pierre Pelletier of Fort Lauderdale, is now under the direction of Miss Dorothy Michinski of 211 N. Everett Ave., Scranton, Pa. Brendan Duffe of Iselin, N. J., will assist the new chairman.

CTRI plans to give the Welcoming Committee a wider scope of an international basis. Previously, foreign members

were not welcomed into the club via tape, but now the committee plans to assist members in foreign countries as well as those members in the U.S.A. The tape will be donated by the club, but foreign members are asked to send at least three international reply coupons in order to defray cost of postage.

Reply Postage

We have been informed by the Australian Tape Recordists Association that requests for information about the club will gladly be answered when accompanied by a stamped, self-addressed envelope. However, the U. S. stamp on an envelope is not good for postage from another country. Rather, the request should include a hand printed or typed envelope plus one International Postal Reply Coupon for the return of the club's material via surface, or two coupons if one wishes the info to come back via Air Mail. Surface letters take approximately one month to Australia or New Zealand, and another month elapses before the reply can get back. If a prospec-

tive member would enclose two postal coupons, and send his letter via Air Mail he would receive the information in two weeks, rather than two months.

New Director for WTE

Appointment of Ed Cumbie as New Director of the World Tapes for Education Program was announced in April by World Tape Pal Executive Director Harry Matthews. Bob Brunson, former Director of WTE, is devoting his efforts to the WTE Services for the Blind. Mr. Cumbie, audio-visual director of Homestead (Florida) Junior High School, is a graduate of Howard College, Birmingham, Ala., and received his Masters Degree from Columbia University. He is listed in "Who's Who in American Education, 1961-62."

The new Board of Review set up by Mr. Cumbie is composed of: Mrs. Doris McCauley, Edward Seblom, and Mrs. Georgianna Lowen, of the Homestead Junior High School faculty, Miss Janice Sisley, Lincoln High School, Wisconsin Rapids, Wisc.; Mrs. Arleen Storm, recording technician, State Department of Education, Austin, Texas; Mrs. Dorothy Claybourne, Christian Board of Education, St. Louis, Mo.; and Mrs. M. F. Carney, social studies director, Bay Shore, N. Y.

JOIN A CLUB

TAPE RECORDING Magazine assumes no responsibility for the management or operation of the clubs listed. This directory of clubs is maintained as a service to our readers. Please write directly to the club in which you are interested regarding membership or other matters.

AMATEUR TAPE EXCHANGE ASSOCIATION
Ernest Rawlings, President
5411 Boccage Street
Cartierville, Montreal 9, P. Q., Canada

AMERICAN TAPE EXCHANGE
Cortlandt Parent, Director
Box 324
Shrub Oak, N. Y.

CATHOLIC TAPE RECORDERS OF AMERICA,
INTERNATIONAL
Jerome W. Ciarracchi, Secretary
26 South Mount Vernon Avenue
Uniontown, Pennsylvania

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

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

MAGNETO-VOX CLUB
J. M. Roussel, Secretary
7915 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

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, Hon. 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.

NEW PRODUCTS

CIPHER I MONO RECORDER



Inter-Mark Corp., 80-00 Cooper Ave., Brooklyn 27, N. Y., is marketing the Cipher I monophonic tape recorder. This machine features: piano key controls, tape footage counter, recording safety lock, speeds of 178, 3¾ and 7½ ips, instant-stop switch, a built-in 6" x 4" electrodynamic speaker, and an external speaker can be connected through a panel jack, automatically cutting out the internal speaker. Frequency range at 7½ ips is 70 to 10,000 cps. The Cipher I is equipped with non-directional dynamic microphone, shielded cable for connecting to radio or phono, monitoring carphone, 5" blank tape reel, take-up reel, roll of splicing tape, and a strobe disc. The cost is \$129.95. For further information, contact Jerome Meltzer, at the above address.

MICROPHONE-RECEIVER



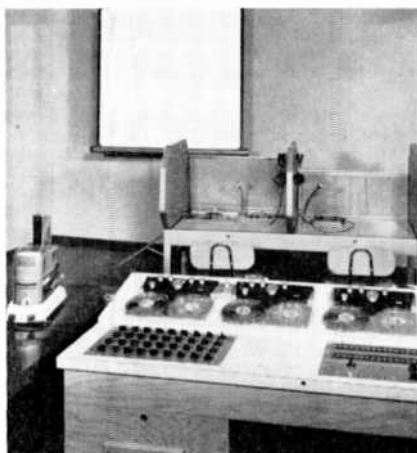
The Collins Farley Corp., 606 West Washington Blvd., Venice, California, has added the new Type "M" boom microphone to its Series 95 Headset to make an integrated microphone-receiver unit offering numerous advantages to users requiring the transmit-receive functions. The microphone is housed in an attractive plastic case on an anodized aluminum boom. Microphone and boom may be swung from the speaking position to an over-the-head position, moving it out of the way when not in use. Ceramic, dynamic, or magnetic microphone elements may be combined with the firm's standard headsets at customer's option. Headsets are supplied with ceramic, crystal, dynamic or magnetic transducer elements monaurally or stereo connected. All details are available from the manufacturer.

WESTINGHOUSE DISTRIBUTES RECORDERS



A new line of three tape recorders for home and business use will be distributed nationally by the television-radio division of Westinghouse Electric Corp. There are three models—21R, 22RS, and 24RS. Built in carrying cases of modern design, all three have push-button controls. Recording controls and indicators include: counter, recording level, automatic shutoff, editor, monitor, pause, erase-interlock and public address outlets. For basic, straight-forward recording, Model 21R is a monaural unit using two-track tape. The cost is less than \$170. Model 22RS, at a cost of less than \$250, is a stereo record and playback unit. Model 24RS is a completely self-contained recorder for taping and playback of stereo programs. It comes with two 8" high-fidelity speakers to handle each of the stereo channels and its cost is less than \$350.

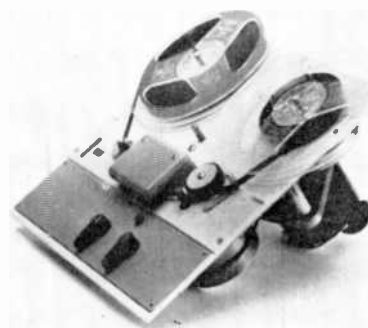
TEACHING LAB RECORDER



Webster Electric Co., Racine, Wis., has announced production of a special tape recorder which can be added to any existing tape teaching lab or included as part of any new installation. It has facilities for electronically changing slides in an automatic slide projector. Called the Ekotape 310-1, it is a professional type tape recording deck with a built-in additional amplifier and push-button control center for recording a signal for slide change. An instructor dictates his lesson on one half the tape. He then arranges his slide or strip films in line with his dictation. On

playing back his dictation he decides when it is time for a film change and at the desired points, he presses a button on the automatic control center of the recorder. This places an inaudible signal on the second track which, when played back, creates an electrical impulse to the projector to change the slide. Complete information is available from Webster Electric.

VEGA TAPE DECK



Vega Electronics Corp., 10781 N. Highway 9, Cupertino, Calif., has announced its development of a simple magnetic tape deck. According to the manufacturer, the transport's simplicity, plus several unique design features has resulted in a drastic reduction in the servicing requirements and potential repairs normally expected from such a mechanism. Called the "AV" deck, the present version is available only as a deck, without electronics, and is sold by Vega only in quantity orders. Other features include: a constant-tape-tension system, rigid mounting of the entire transport mechanism to a one-piece solid aluminum alloy die casting "top plate" for positive permanent alignment, and ruggedness of all parts. The deck is dual speed (3¾ and 7½ ips); flutter and wow specifications are less than 0.20% rms at 7.5 ips. Other details available from Vega.

PACO MULTIPLEX ADAPTOR



Paco Electronics Company, Inc., 70-31 84th Street, Glendale 27, L. I., N. Y., has introduced the Paco MX100 multiplex adaptor. It has been engineered to be used with practically all FM tuners that have either a tape recorder or multiplex output. The MX100 provides maximum separation between 15 cps and 15 kc, and it features a Dimension Control for front panel control of stereo separation. Separation is 28 decibels, output level—1.5 volt, frequency response—plus or minus 1 db, 15 cps to 15 kc, and distortion less than 1% T.H.D. The MX100 is available as a kit or a wired unit and sells for \$49.95 and \$69.95 respectively. Contact Paco for more information.

TAPESPENDENTS 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: 1-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: TAPESPENDENTS WANTED, Tape Recording Magazine, 101 Baltimore-Annapolis Blvd., Severna Park, Md.

Fred Reynolds, 544 Clarkston St., Denver 18, Colo.; Recorder: Telectro MDL 1975, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track, monoaural; 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Tape recording, recording plays, writing stories, music, sports; Teenager (13).

Jack O. Dowdell, 601 Park Road, Creston, Iowa; Recorder: Telectro 350, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$, & 7 $\frac{1}{2}$ 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interests: Comedy, sound effects, magic, ventriloquism, French, jazz, big band swing, travel and conversation; Adult.

Keven Hoad, 6011 Airdrome, Los Angeles, Calif.; Recorders: two Telectros, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips; Interests: Horror and war sounds; Teenager.

Howard G. Mayer, 263 Biltmore Ave., Elmont, L. I., New York; Recorder: Webcor, 7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips, dual track; Interests: Tapespond on Bing Crosby collecting, exchange tapes of rare material, complete record collection, lots of non-commercial material; Adult.

Jerry Mitzner, 1764 Walton Ave., Bronx 53, N. Y.; Recorder: V-M 720, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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 Elles, 2416 South 7th St., Philadelphia 48, Penna.; Recorder: Webcor, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track, monoaural; Interests: amateur radio and shortwave listening; Teenager.

Willard Gray, 8 Chester Ave., Pointe Claire, Montreal 33, Quebec, Canada; Recorder: Phillips (Norelco), 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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, 7 $\frac{1}{2}$ ips, dual track; Interests: Outdoor recording, sound hunting, portables; Adult.

Hank Snow, 2199 Cruger Ave., Bronx 62, N. Y.; Recorder: Norelco Continental 400, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 4 track stereo and monoaural; Interests: Hi-fi, stereo, good music, science fiction, and sound effects; Teenager (16).

Mike Berman, 13 Pickwick Rd., DeWitt 14, New York; Recorder: Wollensak T-1500, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ 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, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Dixieland, country and folk music and all popular. Wants someone in Harrisburg, Pa. area to exchange and copy stereo tapes; Adult (30).

Harry Heinze, c/o Fieldbrook Publications, 212 Yuma Lane, Wheaton, Illinois; Recorder: Tandberg Model 5, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ 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 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2-4 track; Interests: Jazz, swing, bands, love comedy routines, Swinging organ music. Want air shots of swing bands. Goodman, Basie, Herman, Dorsey, 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).

Rev. Luchen G. Riley, P.S. D; D.D., Y.M.C.A., Rm. 728, Nashville, Tenn.; Recorder: Wollensak, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Would like to hear from anyone interested in Metaphysical Endeavors, Psychic Science and related subjects, those who want to study under me and learn the truth. Objective is to organize rapidly and found a retreat for living, studying research. No one denied if sincere, rich or poor, black or white. I am white, 31 years old.

Fred M. Hewitt, 18 Higby Road, Utica 3, New York; Recorder: Bell RT-75, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, dual track, monoaural; Interests: Jr. High science teaching, general conversation about N. Y. state, classical hi-fi, photography, stock market; Adult.

Tony Aleprete, 123 Mill St., Verona, Penna.; Recorder: Pentron Virtosy, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Movies, music (shows, popular, etc.), current events; Adult.

Lyle Martin, 205 W. Holly St., Pasadena, Calif.; Recorders: Grundigs, Butoba, Magnecord, Crown, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track, monophonic; Interests: Good quality recordings of old roll-operated pianos and orchestrons. Serving collectors everywhere. Will exchange for ones you've made; young adult.

Norman E. Miller, 3028 Sixth St., Muskegon Hgts., Mich.; Recorder: Recordio, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interest: Information on salesmanship ideas or how to make money; Adult (43).

Peter J. Helffrich, 419 West 4th Street, Bethlehem, Penna.; Recorders: Ampexes, 7 $\frac{1}{2}$ & 15 ips, half track, full track and 2 track; Interests: Metaphysics, philosophy, religion, recording techniques. Tapes from eastern hemisphere only please; Adult (32).

Sydney B. Mallet, P. O. Box 312, Chandler, Texas; Recorder: Webcor, mono, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interest: Tape-slide shows (2 x 2 slides); Adult (retired).

Arthur J. Le Blanc, 6326 South Paulina Street, Chicago 36, Illinois, Grovehill 6-5287; Recorders: Concertone 505, 2 track record & playback, 4 track playback; Knight-Bell 400, 4 track playback and record—both 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interest: exchange pre-recorded 4 and 2 track tapes; Adult (27), single.

H. Delorme, 6125 Cote-des-Neiges, Montreal 26, P.2. Canada; Recorder: Wollensak T-1515, 2 or 4 track, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Sports, music, current events—mostly French speaking wanted; Adult (33).

Thomas A. McIntire, 501 Wright St., Wilmington, N. C.; Recorder: Concord 880, 3 speed, 4 track. Interest: Want to buy second recorder and would like information and experience with Grundig TK45, Norelco 400, Robert 990 and/or 440, Webcor EP2107; Adult.

W. J. Peirce, R. D. 2, Elverson, Pa.; Recorder: Tandberg Model 5, stereo and mono, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips; Interests: Sounds of pre-war race cars and stationary engines and Airplanes of World War I, Comedy of W. C. Fields, also fine oriental music, soft and soothing with the oboe instrument; Adult.

M. Andre Marotte, 459 Joliette St., Tongueid, P.2. Canada; Recorder: Phillips, 3 $\frac{3}{4}$ ips only, 4 tracks; Interests: Literature, music, speaking French only, TV Sports; Adult (24).

Wesley & Gladys L'Huillier, 28261 Van Born Road, Inkster, Michigan (Box 2342); Recorder: Honeywell all-transistor dual track, 3" reel Little Traverse; Interests: Social Security retirees moving to No. Michigan on Bay will exchange tapes on rock and fossil "finds." Interested in creative wild crafting and collecting "Spectacular homespun yarns" of old-timers—outdoor activities and the good old days. Will swap same from our Rockarama and experiences.

Wallace R. Ely, 2336 Hamilton Street, Allentown, Pa.; Wants to contact a Sunday school teacher anywhere in the U. S. or world interested in exchanging short tape recordings between Sunday school children as an educational measure. I am a teacher in 4th grade, St. John's Lutheran Church, Allentown, Pa.

William M. Lorkovic, 436 Park Drive, Norman, Oklahoma; Recorders: Heath and Bell decks, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, dual and quarter tracks; Interest: Exchange of Metropolitan Opera broadcasts; Adult.

Bertram Chelton, 126 Montgomery St., Highland Park, New Jersey; Recorder: RCA, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interests: Movies, Theater, Travel, Radio, TV; Adult (42), single.

Eddie Rabin, 1331 East 7th Street, Brooklyn 30, N. Y.; Recorder: Revere, 2 track, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Music—classical and modern jazz in particular. Also, piano music—I intend to become a concert pianist. A smattering of interest and knowledge in hi-fi and parapsychology (E.S.P.). I speak French and some Spanish, would especially like to tapespond with a foreign teenager, boy or girl. I enjoy tapesponding and like to just make general small talk on tape with anyone; Teenager (16).

Halbert Speer, 255 Clinton Street, Brooklyn 1, N. Y.; Recorder: Sony, 2 track, mono, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips; and Tandberg, 4 track 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips; Interests: Want player piano, theater organ, band organ, mechanical music, especially Mills Violano Virtuoso, interviews with publishers of "little magazines" or others in small time publishing. Have some of above plus New Orleans and Chicago Jazz, and many airshots of literature, plays, talks and music from Pacifica radio. Want to contact tape enthusiast in the Rapid City, S. Dak. area; Adult (wife and 14 year old daughter also tape).

Walter J. Wiener, 639 Hall Ave., St. Paul 7, Minn.; Recorder: RCA Victor, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, half track, mono; Interests: Would like tape or recording of 1937 Lus theatre broadcast of "Madame Sans Gene." Also interested in movies, early radio broadcasts from 1930's, Russ Columbo records; Adult (24).

- Kevin Walsh, 8302 6th Ave., Brooklyn 9, N. Y.; Recorders: Norelco 400, 4 track; 1600 Wollensak, dual track; and a Webcor 2811; Interests: playing the button accordion, making sound effects, would like to exchange some Scotch and Irish records, 35mm photography.
- Elvin Bruner, 5839 Tangeman Terrace, Lincoln 5, Nebraska; Recorder: Crown Professional, C.I.F., 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, full track; Interests: Hi-fi recording, music (popular and semi-classical), movies, both black and white, still B & W processing. Would like to talk with fellows in late teens from Hollywood, Calif. or surrounding area. Also, to locate a good friend that previously lived in this state, now resides in Sacramento, Calif. I will converse with other fellows of any other location wishing to make conversation—select your own subject; young adult.
- Gilbert L. Moore, 116-35 170 Street, Jamaica 34, N. Y.; Recorder: V-M 722 (stereo), 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 4 track, stereo or monaural, also 2 track stereo; Interests: Data processing (any phase, i.e., computers or punched cards), jazz (modern) or general conversation; Adult.
- Derrick E. Carter, 20, Bramford Court, Southgate, London N14, England; Recorders: Ferrograph 422 and Butoba MTS battery portable, can handle reels up to 8 $\frac{1}{4}$ " diameter and speeds of 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track mono or stereo; Interests: All kinds of music except the extremes at either end of the scale, 35mm photography, current affairs, outside-recordings and life in general.
- Carleton F. Tuttle, 107 Chadwick St., Haverhill, Mass.; Recorder: Revere, Model T-1100, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interests: Hi-fi and stereo, music (band, jazz, pop), sound effects and equipment, slides, plastic extrusion, Marine Corp. Air Wing, general interests; Adult.
- William N. Munro, Ronald Street, Ludlow, Mass.; Recorder: V-M Model 720, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track and 4 track stereo; Interests: Magic, sleep learning, just want to be friendly; Adult (40).
- George E. Martin, 15 Rowe Ave., Halifax, N.S., Canada; Recorder: Heathkit, 4 track stereo, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: General correspondence, photography, all music except progressive jazz and electronic music, sports; Adult, single.
- Roy E. Grace, C.C., 506 Midvale Road, Upper Darby, Pa.; Recorders: Wollensak T-1500, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, monaural; Sony S-300, 2 & 4 track, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: Correspond with clergymen of any faith who use hypnosis in pastoral counselling, or who work with M.D.'s in psycho-somatic applications of hypnosis.
- Stanley G. Lesperance, 19 Benton Rd., Belmont 78, Mass.; Recorder: Tanberg 6, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 4 track, stereo and monaural; Interests: Making friends thru exchange of tapes, will answer all tapes in English, travel, water sports, photography; Adult, single.
- Gary B. Banko, 3 North 20th St., Easton, Pa.; Recorder: V-M #722, 7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips, four track; Interests: Music (small group jazz and Dixieland), sports (football, basketball, baseball, bowling, fishing), home stereo recording, playing chess and cards. Would like to start chess tournament via tapespondence; Teenager (15).
- Joseph Marchesani, 1964 Lurting Ave., Bronx 61, N. Y.; Recorders: Viking 4 track, mono-stereo, and Revere, 2 track, mono; Interests: Would like to correspond with person who would like to exchange tapes (which would be returned) of old rock 'n' roll and rhythm 'n' blues vocal groups, especially collector's items, from the early and middle fifties; Teenager (college student).
- Edward W. Snyder, CMR Box 233, Holloman AFB, New Mexico; Recorder: Wollensak T1616, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 2 and 4 track; Interests: Electronics, special sound effects, stereo effects, music of all kinds; Teenager (19).
- Doyle Hanks, 4533 Eastern, Seattle 3, Wash.; Recorder: Sony 101, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interests: Art, anthropology, nature, humor, classical music, and unusual material. Wish to exchange with anyone in any country. Married university student; Adult (21).
- Ed Walcott, 22140 Cohasset St., Canoga Park, Calif.; Recorders: Sony, Revere, both 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 4 track stereo; Interests: Piano music, especially renditions of works not on records on the market (your own and your friends' piano renditions); Adult.
- Carl Busby, 414 North Verdugo Road, Glendale 6, Calif.; Recorder: Roberts Model 990, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 4 tracks; Interests: Tapes, travel, movies, music, etc.; Adult (single, 24).
- Joseph P. Schaefer, 414 North Verdugo Road, Glendale 6, Calif.; Recorder: Roberts Model 990, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 4 tracks; Interests: Tapes, music, movies, etc.; Adult (single, 23).
- Roland Arger, 819 E. 2 St., Santa Ana, Calif.; Recorder: Hoshio, 3 $\frac{3}{4}$ ips, dual track; Interests: I am a tree surgeon and writer. Research and study to write and promote new Ideology for the Tree World, Politics, World Affairs, Genetics, Eugenics, American, Jewish, Buddhist, Socialist, Nazi, Communist, M.R.A., philosophies. Left and right wing sides of any topic. Writings of Aldous Huxley, George Orwell, etc.; Adult.
- Lloyd E. Cook, Jr. (Cooky), 1151 Post St., #21, San Francisco 9, Calif.; Recorders: V-M 714, 7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips; Butoba MTS, 1 $\frac{1}{8}$ & 3 $\frac{3}{4}$ ips; Interests: Hi-fi, sound effects, science fiction and all types of good music. Help! I have searched high and low for old (or new) recording of "Lookie, Lookie, Hero Comes Cookie" to use as signature. Would enjoy chit chatting with anyone who is interested in chit chatting. My personal response to all tapes guaranteed; Adult (38).
- Robert S. Byatt, 405 $\frac{1}{2}$ East Pike #205, Seattle 22, Wash.; Recorder: Concer'tone S-505-4c, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 4 track; Interests: Classical, Organ and Sacred Choral music, exchange and ideas relating to yoga philosophy; Adult (42).
- John Shepley, 283 S. Washington Street, Wilkes-Barre, Pa.; Recorder: Webcor "Royalite," 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, dual track, up to 7" tapes; Interests: Experimental electronics, original comedy monologues, creative writing, people who like to mock, "non-conformists," willing to hear from anybody interesting, male or female, teenagers especially, but adults also; Teenager (17, male).
- William C. McHenry, 118 Northbrook Lane, Bethesda 14, Maryland; Recorders: Recordio 602, Keystone K-400, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, monaural, half-track will add 4-track if tapespondence justifies; Interests: Want tapes in Spanish language by native speaker. Will exchange English tapes, translate or teach English to Spanish speaker. Also interested in electronics, photography; Adult.
- Harold W. Haugen, Grenora, North Dakota; Recorder: Recordio, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, dual track; Interests: Scandinavian dance music featuring accordion and violin, folk music, country and western music, accordion lessons and sheet music (instruction). I am a new beginner in tape recording and wish to gain new friends through this correspondence, both male and female welcome. Wish advice on best stereo tape recorder to buy; Adult (39, single).
- L. S. Marriott—English (Yorkshire), 36 Ashfield Drive, Etobicoke, Ont., Canada; Recorder: Phillips 400 Norelco, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Grundig TK 54; Interests: Someone to exchange and copy stereo tape or chit chat, anything at all; Adult (50).
- Al Grasson, 5506 Luelda Ave., Parma 29, Ohio; Recorder: Wilcox-Gay "Master Recordio," dual track, monaural; Interests: Photography, tape recording, dancing, rock 'n' roll, science fiction, golf, bowling, baseball, outer space, and hearing from people all over. I am taking first year German in school. Would like to hear from other teenagers, male or female, will answer all tapes. Am looking for tapes of a disc-jockey called "Mad Daddy" who was here a few years ago. I do not know his whereabouts at present, but last heard he was in New York.
- Ross Leslie, 62 Old Forest Hill Road, Toronto 7, Ontario, Canada; Recorder: Pentron HT-225, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 2 track; Interests: Private flying, advertising, music, high fidelity, poetry and boating; Adult (32), announcer-producer, single.
- Charles Foster Caswell, Frankstown Road, Altoona, Pa.; Recorders: Webcor, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Telectro, 3 $\frac{3}{4}$ ips, both dual track; Interests: Original "Moon River," writing, mail order, pets, show dogs, plus old fashioned every day "chit-chat" like over-the-fence-gossip; Adult (58).
- Fred J. Janowitz, 3108 W. Madison St., Milwaukee 15, Wis.; Recorder: Ampex 960, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, dual track record, 4 track playback; Interests: Music, photography, high fidelity; Adult (40), single.
- B. E. Uminski, Box 1258, Homer, Alaska; Recorder: V-M, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 2 and 4 track; Interests: Would like to tape with people intending to drive to Alaska this summer, can answer questions on the trip. Would like to exchange my Alaska tape slide shows with foreign tapespondents; Adult (M).
- Trevor R. Watson, 59 Vincent Road, Norwich, Norfolk, NOR 03R, England; Recorder: Collaro, dual track, 1 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, 7" reels; Interests: Shortwave listening, reading, Latin American and Hawaiian music; Adult (26).
- Vern Westphal, 5910 Transit Rd., Depew, New York; Recorders: Califone 73T, Wollensak T1616, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 2 and 4 track monaural or stereo; Interests: Still and slide photography, darkroom work, pop music of the 20's; Adult (57).
- Karl Backhaus, 1810-27 Ave. SW, Calgary, Alberta, Canada; Recorders: Koerting 158, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, 4 tracks; Phillips 200, 3 $\frac{3}{4}$ ips, 4 tracks; Interests: I would like to exchange copies from pre-recorded stereo tapes, popular, semi-classical, classical; Adult (45), English and German.
- Martin Hovey, 2265 Madison Ave., Apt. 5, Montreal 28, Quebec, Canada; Recorder: Phillips "400," 1 $\frac{1}{8}$, 3 $\frac{3}{4}$, 7 $\frac{1}{2}$ ips, 4 track; Interests: Auto racing, jazz, tropical fish, reading anything well written. I would like to know people within a day's drive from my home whom I could visit as I like to travel. I would be available also to anybody who wished to come here; Teenager (19).
- R. Beer, Apt. 514, 406 Washington, Gary, Indiana; Recorder: Akai T6 (Robert 990), 3 $\frac{3}{4}$, 7 $\frac{1}{2}$ and 15 ips, 2 and 4 track stereo; Interests: Big swing bands from 1930; Adult (39).
- James J. West, Telegraph Office, Kennedy VA Hospital, Memphis, Tenn.; Recorder: Revere, dual track, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; Interests: "Study of Sleep Learning," would also like to read to others and they to me on such subjects as real estate, electronics—also read for the blind.
- William J. Teague, 512 13th Street South, Great Falls, Montana; Recorders: V-M 714, converted to 4 track, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips; and Bell & Howell, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips, dual track; Interests: Johnny Horton, Dragnet radio broadcasts, tape copying, exchange friendship on popular recorded music of today and yesterday, like copies of "Night Mist Over Highway Number Two" to "Jersey Bounce" by Spacemen, and any actual recordings of TV and radio's boners; Adult (24), single.
- J. Grant, Room III, Dunsmuir House, Dunsmuir Str., Vancouver, 2 B.C., Canada; Recorders: Philips (Norelco) Continental 300, speeds—1 $\frac{1}{8}$, 3 $\frac{3}{4}$ & 7 $\frac{1}{2}$, four track; Pentron "Triumph," XP-605 stereophonic, speeds—3 $\frac{3}{4}$ & 7 $\frac{1}{2}$, in-line stereo head (2 or 4 track); Interests: Evangelical missionary stories and sacred music; Adult.

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.

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

Taping From FM

To the Editor:

I have just purchased an FM receiver and I wonder whether you could answer the following question concerning taping music from FM frequencies. Does one need special permission from the radio station to tape music from it? How can I minimize hiss when taping from FM? Is there any publication which lists the duration of classical pieces? Not knowing how long a particular piece of music will last is quite a problem since you don't know how much tape will be needed.

I enjoy your magazine very much and I hope you continue the good work. However, I would like to see more critical evaluations of recorded tapes, especially in terms of cross-talk, pre-and post-echo. One has to be pretty hard of hearing not to notice these defects in some tapes. Your magazine, by insisting that such problems be rectified could induce the recording companies to perfect their product and thereby increase the market for recorded tapes. Many of my friends have, after several bad buys, ceased to buy recorded tape and have begun to do their own recordings from the radio. The inability of *hear* the tape before buying it has also stopped them from buying recorded tapes; nobody wants to be stuck with something he doesn't like. Tape has a tremendous future; it will undoubtedly replace the plastic disc. Nevertheless we must stress for quality work in all phases of tape processing—performance, reproduction and durability.—M. R. G., Washington, D. C.

There is no permission needed from a radio station to tape off the air. However, such off-the-air recordings cannot be sold. Hiss can be minimized only by making sure the signal strength of the station is sufficient. In fringe areas where the signal is too weak, over-amplification will tend to bring up the hiss level. An FM antenna should be used for best results. The timing of classical works is at best an approximation. Some conductors rush through like an express train and others may give a plodding interpretation to the same piece of music. For instance, on two recordings of one of Beethoven's symphonies the difference is ten minutes, one running that much longer than the other. The book listing playing times is called "The Standard Repertory." Unfortunately we have neither the author's name nor the publisher but we are sure you can find it at your local library.

Guitar Recording

To the Editor:

Regarding your article "How to Record Musical Instruments" in the March issue, I play a Gibson L-7 guitar with a Rhythm Chief electric pickup. Experimenting with my VM-722 recorder I found I

got the best sound recording without any outside distortion or interference by plugging directly into the microphone input on my tape recorder, bypassing the guitar amplifier.

My amplifier has a "tremolo" and when I want this effect recorded I use the patch cord with alligator clips clipped to the speaker in the amplifier. The sound is far superior to that obtained by using a mike.—Bruce Aarons, Brooklyn, N. Y.

Reels Only Half Full

To the Editor:

I have an argument against the present state of the recorded tape market that you never have mentioned.

One of the many advantages of tape over records is the length of uninterrupted material that can be placed on tape. The recorder manufacturers have developed the four-track tape which even doubles this time.

Now the four-track tapes are offered for sale and what happens? The four-track tapes contain the same material as would be found on one stereo record. When one examines a seven inch reel of recorded tape the reel is half full. Now, instead of overcoming the short time that each face of an LP plays, the tape people have transferred it to tape and the price is almost double. The tape people will have to change in this respect before I will be interested in recorded tapes. The only exception to the above is the Twinpack produced by some manufacturers. Even some of these do not take advantage of the uninterrupted playing time that tape offers.

I have found it is cheaper to buy the records and then transfer them to tape. This is especially true when the records are sold by discount houses at discount prices. I hope this complaint will be of some value to you.—John H. Potter, Bristol, Conn.

Slowing Recording Speed

To the Editor:

I wonder if you can help me with my problem. I used to get tapes from my old country for more than four years. Recently the last few tapes (probably the speed of the recorder has changed) all have to be copied from my second recorder but with slowing the speed of the recorder. I did it by making a bigger pulley on the recorder and I got much better results. Still I would like to make it a little slower. Please tell me if there is a way to do so because I have no more space for a bigger pulley and I would like to control the speed and be able to adjust it with easier control.—A. S., Scarborough, Ont., Canada.

The speed may also be reduced by decreasing the diameter of the capstan by machining it down. This must be done very carefully for if it becomes off-center

then wow will be introduced. You might also try reducing the size of the pulley which drives capstan. This should be done by an amount to give you the speed you desire. There are no home-type machines with an adjustable speed.

Four-Track Monaural Tapes

To the Editor:

When using a four-track stereo recorder to make tapes that will be played back on a two track monaural machine, such as in correspondence, which tracks should be recorded so that they will not be backwards on the two-track machine?

Is the tape on a half-track machine turned over and run through again to record the other track? In recording four-track monaural tapes for correspondence, is there a special order in which they should be recorded?—J. P. W., Kalamazoo, Mich.

Tapes made on a four-track machine for playback on a two track machine should be recorded only on tracks one and four. This is accomplished by setting the selector switch on the 1-4 position and recording the tape on one track and then turning the reel and recording on the other. The selector switch should not be changed between recordings.

In recording all four tracks the usual order is 1-4-3-2. This is accomplished by setting the selector switch at the 1-4 position, recording track 1 then turning the tape over and recording track 4. The tape is turned over again and placed on the left hand reel for recording and the selector switch shifted to the 2-3 position. A recording is then made which will appear on track 3. Once again the tape is turned and this final time track 2 will be recorded. This results in no necessity for rewinding the reels between recordings. Tracks 1 and 3 will run in one direction, 2 and 4 in the other. The tapes could be recorded 1-3, 2-4 by rewinding between recordings but there would be little point in doing it this way.

Conversion Is Best

To the Editor:

I own a Wollensak T-1500 tape recorder (2-track monaural). Can I play two-track stereo on my machine? That is, two-track stereo recorded tape. I know it will reproduce monaurally but will it sound all right?—R. E. P., West Haven, Conn.

Two-track stereo tapes are rather hard to find but even if you do manage to get some, your machine would only play the top track and thus you would be hearing only the sound that was picked up by the mike to the left of the orchestra. The playback would lack balance and we doubt that it would sound well. Your best bet is to convert to four-track stereo if you are interested in playing recorded tapes.

Against Listing Tapespondents

To the Editor:

This is a short note commenting on two things regarding your magazine. First I would like to congratulate you on putting out such a fine magazine. I am not a subscriber but I have enjoyed many articles that have been most interesting to those of us in the recording field. However, I was somewhat chagrined at the notice appearing on page 17 of the February issue.

No doubt your intentions are well and

good in hoping to bring many hours of pleasure to a great number of people and perhaps it will but have you given any thought to what will happen to the many wonderful tape clubs in a matter of time? Memberships will dwindle and ere long some clubs will have to disband for lack of members (why should they pay a fee when they can get their names published free of charge). I protest your action, as I feel the tape clubs have done more for amateur recording than anything yet. I also feel your offer (although it may be an honorable one) will do more harm than good in the long run. Therefore I ask you to re-evaluate the situation. I want our tape clubs to grow.—*Wm. H. Roquemore, Flint, Michigan.*

We too want the tape clubs to grow and by introducing large numbers of people to the fun of tapesponding, we feel the publication of names will make them want to join a club.

The tape clubs that are on the ball will send invitations to join to those whose names we publish and don't forget that the names are published just twice in contrast to the club directories which are permanent. Also, the number of foreign names in our listing is small compared to that found in club directories.

From the very first issue, Tape Recording Magazine has carried the club listings and over the eight years we feel that we have done more than any other single medium to foster the growth of the clubs. So far as we know, no other publication even so much as lists a single club. The clubs should find this listing service as valuable as our readers do.

Mono To Stereo?

To the Editor:

I have a lot of good material on tape (monophonic) that I would like to convert to stereo sound. Is this impossible or can you advise some method to accomplish this result.—*F. A. D. Jr., Phila., Pa.*

The word in this case is impossible. Unless sound (or pictures for that matter) is taken stereophonically, there is nothing that can be done later to convert it.

The key to stereo is the word two. To see stereoscopically you must have two eyes spaced some distance apart. Similarly to hear stereophonically you must have two ears in working order, likewise spaced some distance apart.

A stereo recording must be made with two microphones and recorded on two separate channels on the tape. Since the material which you have made with one mike, you have no way of getting the second channel...

RCA attempted the reprocessing of some mono Toscani recordings by means of filters, putting the bass on one speaker and the treble on the other but it was pseudo stereo and the critical acclaim was no widespread.

Also, back in the very early days of stereo some firms resorted to the unscrupulous practice of creating pseudo stereo from mono by setting up a stereo recorder and then playing the mono music from loudspeakers and adding music by live soloists situated near one of the mikes. This gave a stereo effect to the soloist but

the mono music was still mono, even though it came from both speakers.

To be true stereo the two (or more—you can have four channel stereo, too) channels must be kept separate from mike to tape to speaker.

Dislikes Wording

To the Editor:

New words make their appearance in our language all the time which is not only inevitable but also necessary. Some words are more successful than others which is to be expected but I cannot think of a more horrible word than TAPE-SPOND and its derivatives TAPESPOND-ENT(S) and TAPESPONDENCE.

Why not use, on the analogy of PEN FRIENDS or PEN PALS, TAPE FRIENDS or TAPE PALS (or TAPALS if you prefer). Instead of TAPESPOND I suggest TELETAPE on the analogy of TELEPHONE, TELEGRAPH, TELEPRINTER, etc.

As the leading tape recording magazine I hope that you will take the lead and tell all your subscribers, if they want to teletape with somebody, to list their name in your column: TAPALS WANTED. Others will follow your lead soon enough.—*H. J. de Jong, Launceston, Tasmania, Australia.*

Measuring Tape

To the Editor:

Much has been written about means of locating subjects on reels of tape records, the usual tally device being a patch on, by a tired man, wanting to catch the 5:10 bus.

Properly, tape should be measured only by the capstan pressure roller, active only when tape is in play. Rollers are generally of random size, but can easily be standardized, at 1.194" Diam., 3.751" Circumference, or multiples thereof, so as to correspond to 3¾ inches per second of tape movement, or the other standards. The 1.194" size is close to average, so would be easy to adopt.

The tally, or index, should be driven from the roller, the hub or shaft of it can easily be extended below deck for the takeoff.

Revere decks use a 3 digit counter, NO 7828, made by Production Inst. Co., Chicago 6, Ill., available from Revere, which registers one digit for nearly each pulley rev. A slight difference in size of drive pulley, grooved for 1/8" rubber belt, will make ratio exact.

It is no trick at all to fit the 7828 above deck, drive from an extension on the roller with a common rubber band. Even if the roller is not 1.194" Dia., a bit of math. will make it reg. Mark roller, count rev. for 6¼ min.—375 sec., or 100" of tape, and rev of counter pulley for 100, AND THERE YOU ARE.

Recorders bought by pitch-conscious music students should be driven by hysteresis sync. motors, instead of the too small induction type. There must be, somewhere in the U.S., a good H. S. motor available, at a reasonable price, adaptable to most decks, as the tape heads are. This is an answer to the first such Adv. that appears in this Mag.—*William H. Brooks, Oconomouoc, Wis.*

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TAPE IN EDUCATION

Robert C. Snyder

ONE of the biggest holdbacks to the use of mechanical equipment, such as tape recorders and projectors, in the classroom lies in the fact that, generally, women are not mechanically minded.

And since most of the teachers in the nation's schools are of the feminine gender it logically follows that to increase the use of these tools of learning, there will have to be some changes made.

With the increasing use of closed-circuit TV and the fact that most schools are even now wired for sound a very logical development might take place in the future.

This would be an A-V department designed to service the entire school. It would be necessary to have each classroom in the school connected to the A-V room with separate wiring terminated on a panel board similar to a telephone switchboard.

Also, it would be necessary for each room to have a closed circuit TV monitor which similarly would be wired to a panel board in the A-V room.

The man who operates all the equipment would be a technician skilled in both its operation and upkeep. This would solve two problems as far as the school was concerned: 1—there would be no need for the teachers to have any contact with equipment, 2—it would eliminate the need for teachers to know how the equipment works or to operate it.

The A-V room would contain a number of movie and slide projectors beamed into TV pickup tubes. It would also have a battery of tape recorders and record players.

The operator of the A-V room, in addition to the actual operation and maintenance of the equipment would also be responsible for booking films, tapes and other materials as desired by the teachers and for seeing that they were returned when the school was finished with them. He would also keep in order the library of films, filmstrips, tapes, records and other media that would be required.

When a teacher wanted to schedule, say, a slide show for a certain class she would let the technician know the title of the show, the time it was desired, etc. At the appropriate time, he would insert the slides in the TV camera slide projector and upon receiving a call on the phone from the teacher would beam the show to her room over the closed circuit TV system.

Inasmuch as the A-V room would have several closed-circuit camera chains plus the audio hookups, a number of programs of a different nature could be sent to different classrooms at the same time.

If a video tape recorder were also included in the equipment, then school produced materials could be readily made available, although the same type of work might be done with school produced movies or slide shows as well.

With VTR it would be possible to record historic materials off the air or to record excellent presentations of subject

matter by the teachers so that they might be used over again with the next year's classes. Also it would be possible to make use of the professionally produced material of an educational nature that is being currently used on the TV networks.

The fact that all lines from each classroom would be terminated in the A-V room panel boards would provide the maximum of flexibility and the maximum usage of the equipment.

One disadvantage of this system would lie in the fact that the use of color slides would be restricted to black-and-white reproduction on the TV monitor in the classroom. This would apply until the day arrives when color TV is as common and as cheap as black and white.

We are not saying that this would not cost a pretty penny to install in a school building but it might well result in much better and, in the long run, cheaper teaching by producing superior education at a lower net cost.

We think that teachers would like to be freed of the burden of operating, scheduling and taking care of the equipment. This would make them more receptive to advances in automation in the classroom.

We believe such automation will not only come but has to come, and within the foreseeable future. With the increasing school population and the shortage of qualified teachers today, it is a logical conclusion that the situation is not going to ease in the years ahead.

Classroom automation, that could bring the best of teaching to the classes may prove to be the only solution.

It is possible that the situation in education is analogous to that in which the telephone company found itself. If it had not switched over to increasingly automatic equipment, which did away with the necessity of human operators, the system today would be so unwieldy as to be unworkable. It is said that it would require the services of every woman in the United States working at manual exchanges to keep up with the telephone traffic and even then this would not be enough to cope with the situation.

Teachers are understandably agitated about being "replaced" or downgraded by automatic teaching devices and most articles on classroom automation either begin with the statement that "this is not intended to replace the teacher" or end with a similar statement, doubtless to keep down any possible thoughts that a teacher might be replaced by a machine.

This may be a head-in-the-sand attitude. It may be necessary to replace many, many teachers, not because there is no place for them but because there are simply not enough teachers to go around. Their only replacement will be a machine, just as the human telephone operators gave way to the dial system.

"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:

My Tape Recorder is very, very important to me because as a patient in a T. B. sanatorium I can record each conversation with my doctor when he makes his rounds, and play them back to refresh my memory and to let my husband hear the doctor's own words when he comes to visit me.

Part of my time I keep occupied by studying a foreign language, via tape. It has made the long months of hospitalization much more bearable.

I also do part of my correspondence by tape letter. Hearing the voice of a friend or loved one is 100% nicer than a written letter.

I wouldn't be without my tape recorder.
—Mrs. Margaret Walker, Seattle, Wash.

Gentlemen:

Why My Tape Recorder is Important to Me? This is a very easy question for me to answer; my baby's first and important words are mine (and hers) forever. On each of her birthdays I record a birthday message and greeting to her. All my correspondence is conducted on tape and I now have more good friends the world over who know the sounds of America as well as the voices of Americans. My home movies have come "alive" with taped sound tracks. My home and my heart is filled with the finest music known to the world through this wonderful magic medium of TAPE.—Ralph Shomer, West Englewood, N. J.

Sir,

I am a photographer and in my work doing enlargements from difficult negatives, I have to burn in (giving extra exposure) and dodging (holding the light back), so—"Why my recorder is important to me?" is in describing the faults and corrective methods in order to make a perfect picture onto tape and then playing the tape back while I am working in the dark-room, thereby leaving my hands free to do my work, thus saving me many minutes of time, because it is hard trying to read the notations made for this purpose on paper under the darkroom lights.—Arthur Magson, Providence, R. I.

Sirs:

Ever since the "Why my tape recorder is important to me?" contest I have been wanting to write but have not because my use is so essential to me that I expected to see it in each forthcoming issue.

I own and operate a pharmacy and receive many prescriptions by telephone. At its best it is a slow process and error is possible.

Now I use a simple pick up coil with

my tape recorder. It is fast and most important is accurate. Of course I know that this process is used widely in many businesses but to me where accuracy is most important it is very valuable.

If the above merits a roll of tape, kindly give it to a deserving blind or needy tapist.
—P. Lutbran, Philadelphia, Pa.

We shall pass the winning tape along to one of the voicespondence clubs to give to a blind member. On their behalf, many thanks.—Ed

Gentlemen:

Nearly a year ago the church which I pastor was engaged in a two-weeks revival meeting. Solely for the purpose of conserving one of the evangelist's messages, I recorded one of the services. Although it was totally unplanned, during the earlier part of the service one of the young men of the congregation stood and publicly gave a splendid testimony of his love for and appreciation of the goodness of his Lord.

At the time of my recording this service and this young man's testimony, none of us knew that within a few weeks this splendid young man would be drowned with his younger brother while swimming near his home near Beattysville, Ky. But, nevertheless, that's what happened—just last Fall.

I suppose I need not explain that this recording is next to priceless to me as the pastor of this young man, and to his family. A copy of this recording has since been made for and played by the friends and members of his family.

This incident and recording, along with numerous other uses has made my recorder very important to me.—Rev. D. Samuel Hawn, Richmond, Indiana.

Gentlemen:

I've always known and appreciated the many uses that a tape recorder has, but during the past year, my tape recorder has become more and more important to me.

I'm studying at the National Academy of Broadcasting in Washington, D. C., for a career as a radio announcer. Therefore, my tape recorder (Silvertone dual track) has become invaluable for these reasons: I can practice my foreign language pronunciation; diction; phrasing; inflection and interpretation of commercial and news copy.

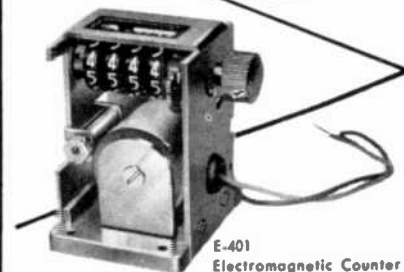
With the help of friends, I can practice the techniques of interview and ad-lib programs. Coupled with another recorder, I can use mine to work on the techniques of using tape inserts in program material.

I also use my tape recorder for recording music that I particularly like or that, in some cases, would be otherwise unobtainable.—Gordon F. Catt, Wash. D. C.

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“Professionalize” Your Recording Mike(s)

by Tommy Thomas

... give your present mikes the features usually found only on high-priced equipment.



Fig. 1: The microphones that came with your recorder were very likely designed to be hand held, but you can extend their inherent versatility greatly by fitting them onto stands. At left, a photographer's light stand is used, and at right, a regular mike stand.

MOST of us who purchase recorders for home use are quite happy and contented using the little crystal or ceramic microphone that comes along as original equipment. Sure, we soon are told, we can pay from thirty to fifty dollars (or a heck of a lot more) for a superior dynamic mike, to bring out the full fidelity of our recordings, but for many of us it isn't worth it. We just don't do

that much recording with a microphone. And if it's stereo, which of course means buying *two* of these high-priced mikes, well, ... that's WAY too much money.

Now, it isn't especially stressed by the people who tell you about using better quality microphones, but two of the "extra" and handiest features of professional-type mikes are features we can easily duplicate ourselves for just a

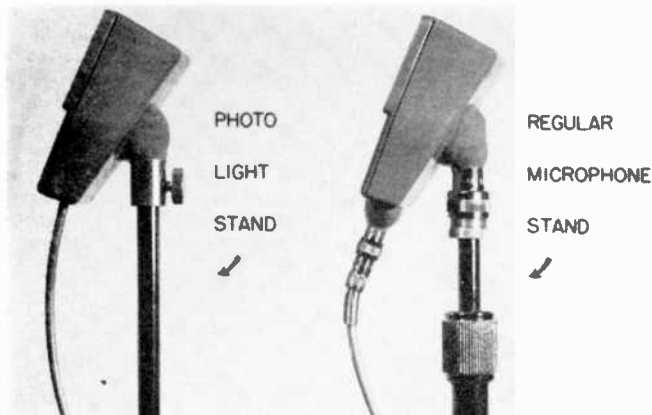


Fig. 2: By securely fastening the appropriate adapter to your microphone with Epoxy adhesive, you'll make it instantly convertible to stand use. A light stand is especially handy because it doesn't weigh much, and it folds compactly for storage and carrying. Mike stands, though, are more "impressive" and come in many sizes.

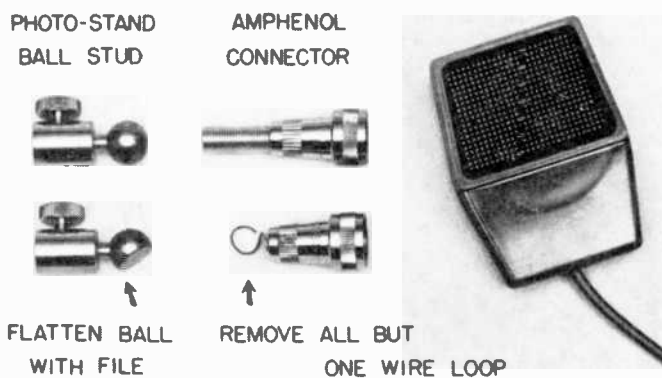


Fig. 3: The adapter you'll need depends, naturally, on which type of stand you'll be using. The important point with the ball stud is that the proper angle is filed on the ball. And with the Amphenol cable connector, pull on the outer portion of the cable-protecting spring to extend it, then cut off all but one extended loop.

dollar or two: (1) They have a standard fitting that allows them to be screw-fastened to most any desk or floor mike stand, and (2) the cable is detachable right at the mike, so different-purpose cables can easily be substituted whenever you wish. Both of these are wonderfully useful features, as you can easily visualize.

Let's start with the problem of getting your microphone onto a stand. I'll get into regular mike stands a little later, but first I'd like to "push" the use of a *folding light stand* (Fig. 1, left), the same type stand used by amateur photographers as a support for their reflectored photofloods. This is a most marvelous little stand that doesn't cost very much, is light in weight and folds up into next to nothing for easy transport and storage and is (in my opinion) the perfect answer to the low-cost stand problem.

Buy the lightest-weight stand you can find at your local camera shop. Or if they don't seem to have just what you want, Montgomery Ward lists a dandy little stand in their photo catalog. It's a Smith-Victor 3-section Lightweight Floodlight Stand, #67R3266, for \$2.98. (Even getting two for stereo doesn't add up to much.) This stand elevates to six feet and collapses down to a neat and thin 24 inches. It comes with a *removable ball stud* that clamps firmly on top with the aid of a big-knobbed setscrew. This ball stud (Fig. 3 left) is made to fit a photoflood reflector clamp, but it's easily adapted for use with your mike.

Put the shank of the ball stud assembly in a vise and file-flatten the ball on one side. Be sure to file it down on the side *opposite* the set-screw on the shank, and check

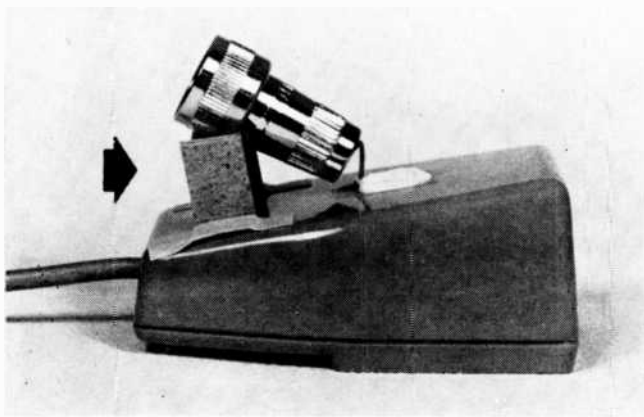
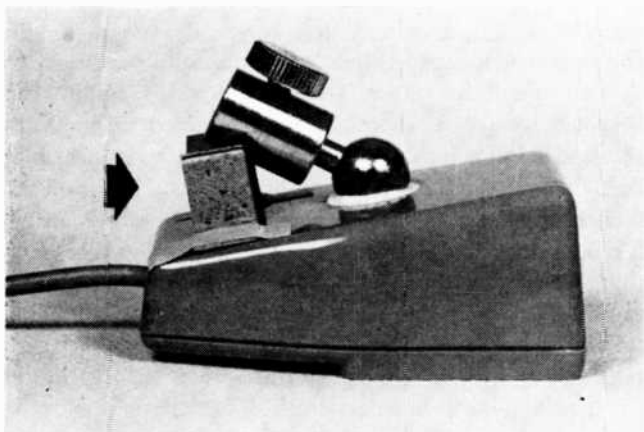


Fig. 4: Use heavy-consistency Epoxy but only use a small portion for the first setting or it'll be difficult to get the adapter set exactly straight. After the proper angle has been determined, temporarily tape a little wooden or cardboard jig (at arrow) to the back of the mike to hold the position during the hardening period.

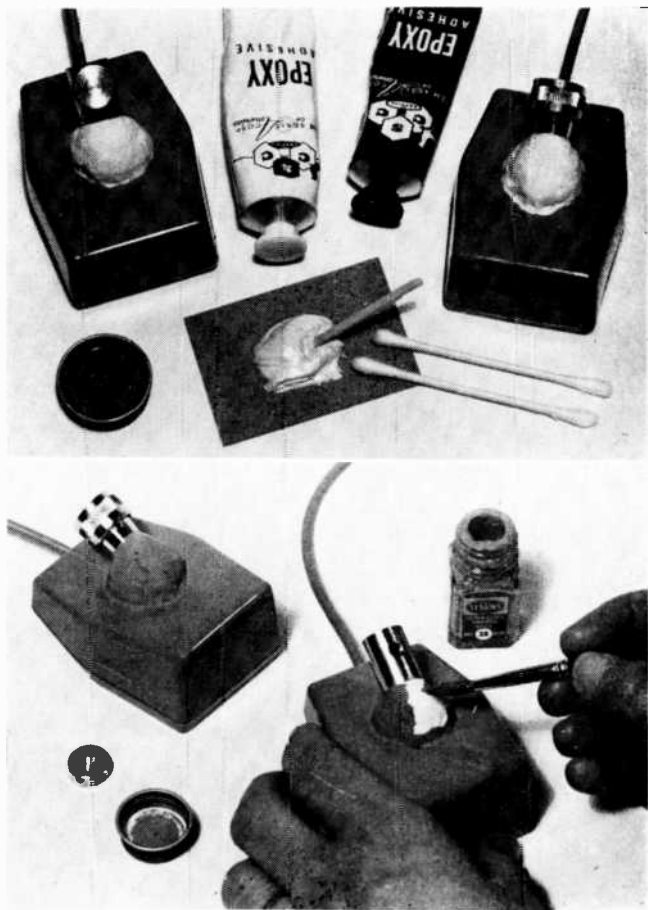


Fig. 5, top: Then, with the adapter "locked" into position with just a bit of hardened Epoxy, heap lots more of the adhesive generously around the lower third of the adapter, securely anchoring it to the rear of the mike. Before leaving it to set, though, dab at it gently with a moistened Q-tip to properly shape it and smooth it out. Fig. 6, bottom: Finally, to dress it up, paint the hardened Epoxy with an enamel that matches the microphone case as closely as possible. Hobby shops, especially, have little ten and fifteen cent bottles of model paint in most any color imaginable, so it shouldn't be difficult to find a near-exact color. Give it 24 hours to dry.

the angle of your filing every now and then by holding it against the back of your microphone. I liked it best with my microphones *tilted slightly upward*, but of course you can decide on any angle you wish for your own needs.

When you've filed it enough, and to the angle you want, fasten it lightly to the back of your mike as shown in Fig. 4, with just a dab of Epoxy adhesive. And please do NOT use any other type of adhesive or you'll risk the assembly falling off some day. With Epoxy (the heavy-consistency type that mixes together to about the "thickness" of tooth-paste) you'll get a welding together of parts that will form a solid union forever. And the reason I suggest fastening only lightly first, is so you can more perfectly judge the "straightness" of the ball stud in relation to the mike. Once the Epoxy hardens you can't make any changes, no matter how slight, so be sure to get it straight the first time. Otherwise, naturally, your mike will forever look a bit lopsided and most unprofessional when it's set atop its stand. Then, with the initial setting dry and hard, add to the rigidity of the final support with lots more Epoxy heaped all around . . . and finish up with a neat paint job.

That's all it takes to adapt your hand-held microphone so it'll quickly and securely fasten atop a light stand any time you need it. There's one "bad" point to all this, though, that you should know about. This is a beautiful little stand

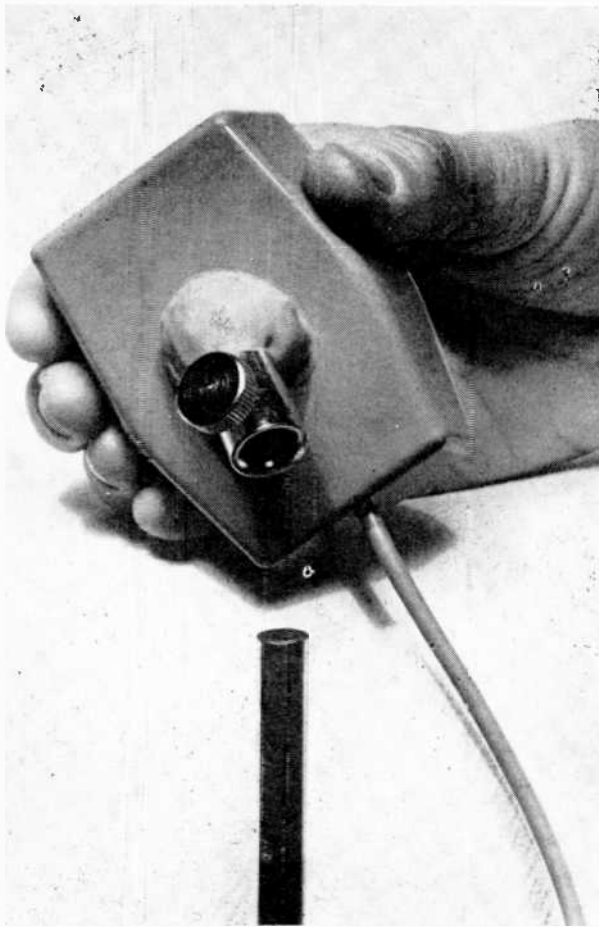


Fig. 7: Now the microphone is ready for action, either held in the hand as before or placed on a convenient stand (with just a twist of the wrist you can have it on or off within seconds). For hand-held use it's important to tighten the set-screw again so it won't jiggle and rattle, causing mike noises when recording.

(for its purpose) and I recommend it highly, but it *can* be a little bit awkward at times. The bottom of the light stand consists of a tripod-like deal with a foot spread of 32 inches. This foot spread, which is what keeps the stand up so securely, is easy to stumble over until you get used to it. It's not bad, really, but it's worth keeping in mind when you're deciding which type of stand to use: photo stand or regulation microphone stand. Keep in mind also,

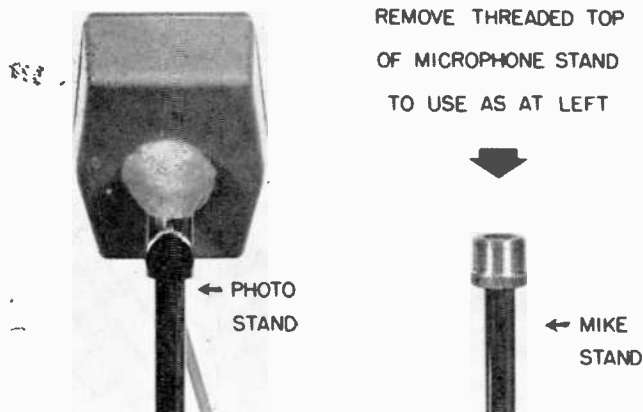


Fig. 8: If you'd like to combine the extremely easy "on-offness" of the photo stand adapter with the "better-lookingness" of a standard microphone stand, pick a mike stand that has a $\frac{3}{8}$ " diameter top stem. The Knight stand shown here (right) is topped with a regulation $\frac{5}{8}$ "-27 mike threading that can be removed by unscrewing.

though, that for stereo use, where you have *two* stands, this problem is not a worrisome one because usually you're not standing near the stands, but *between* them.

Now for those of you who would rather use a regular microphone stand, it's just a matter of fastening a different type of adapter (Fig. 3, middle) to the back of your mike. Regular floor stand mikes cost at least double and they're heavy and clumsy (especially when you need two of them) both for transporting and storage. But I must admit they're quite a bit more *impressive* looking when recording than the skinny light stands. Also, you don't have to worry about stumbling over an extended leg. And best of all, they come in a wide choice of types, including not only regular floor and desk models, but *boom* types as well. The floor stand shown here, by the way, came from Allied Radio. It's their #94SX001-2, which sold for \$7.35 in last year's catalog but I don't find it listed again this year. Very likely they still have some on hand, if you wish to inquire. The reason I mention this is because this particular stand is a bit unique (as far as I know) in that its top stem is $\frac{3}{8}$ " in diameter, the same as a light stand. It is topped by an out-sized regulation $\frac{5}{8}$ "-27 mike threading (Fig. 8) but this can be easily unscrewed. Personally, I prefer the simple set-screw fastening of the ball stud (the mike goes on or off in a second, without the usual complicated unscrewing), so this makes it possible to use the photo-stand ball stud adapter atop a "regular" mike stand. It's worth considering.

The photos pretty well show how a female Amphenol cable connector (Type 75-MC1F) is fastened to the back of a microphone to adapt it for mike-stand use. This Amphenol cable connector has a *rotatable sleeve* on the end of it which has the same $\frac{5}{8}$ "-27 threading as is regulation on most mike stands. The fact that this threading can be rotated makes it especially easy to fasten the mike to the stand. But once off the stand, it *jiggles* . . . which is bad, because this metallic clinking and clanking sound is picked up by the mike. So to avoid this unwanted sound, it's necessary to *anchor* the sleeve securely against something that will hold it in one spot without moving. You can do this by cupping the mike in your hand and holding on with a continuous pressure against the back, but that's rather awkward and completely impossible when you want to pass the mike around. So do this! When you're heaping

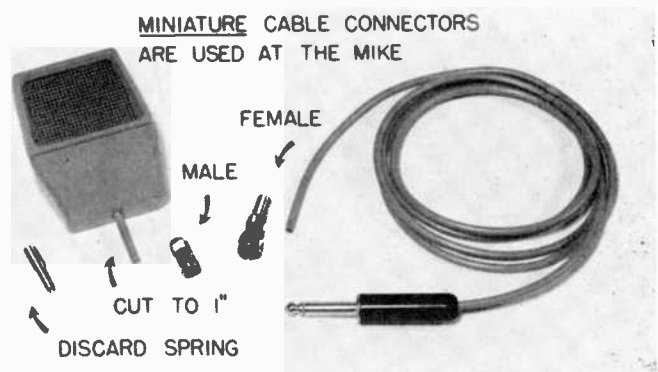


Fig. 9: To further extend the versatility of your microphone you may wish to remove the permanently attached cable and replace it with a connector system, using ultra-mini connectors. This will permit you to use the regular cable as before, and also to change to a longer cable whenever you wish to provide more range.

on the Epoxy (Fig. 5), make sure that you keep it below the level of the *set-screw* that's in the side of the Amphenol connector. Then later, after the Epoxy has hardened, *unscrew this set-screw almost an eighth of an inch*. Originally it has to be fastened tightly to hold the coiled spring inside, but once the Epoxy takes over holding down the connector, the screw can be backed up. Now it's an easy matter, after uncoupling the connector from the mike stand, to screw the Amphenol sleeve back down against the protruding set-screw where it will jam tightly and won't jingle or jangle an iota.

Just being able to fit your microphone to a stand will increase its versatility greatly, but you can go still further toward "professionalizing" it if you add another cable connector to the bottom. This is usually done (in effect) with dynamic mikes so you can change cable connections when you wish to switch from high impedance to low impedance . . . but it has other important possibilities as well. You can have *various* lengths of cables on hand, for different recording purposes and needs. Also, if you want to use one mike with two different recorders that have different input plugs, this becomes a simple matter of merely screwing on the appropriately plugged cable.

Regular cable connectors are too large for this purpose so you should use a miniature version. The ones I used here are Switchcraft "Mini-Con" Mike Connectors, male Type 5501M for the mike and matching female Type 5501F for the cable (Fig. 9). These connectors will work with single-conductor shielded cable up to 3/16" outside diameter, which should include most of the cables attached to home recording mikes. CAUTION! After cutting the cable so that only one inch is left protruding from the mike, it's a pretty good idea to fasten the connector on correctly the first time to avoid weakening the wires. If in any doubt about your ability to do this, you'd better practice a few times on some discarded cable. Also, try to keep your soldering heat down to a minimum when working around the microphone so there's no unnecessary risk to the sensitive inside element. It's easiest to bring the cable *shielding* to the outside of the connector and solder it there. Prepare for this first by scraping a spot bare on the side of the connector and then actually depositing a bit of solder there. This will cause the metal connector to heat up



Fig. 10: Work cautiously when fastening the male mini-connector to the one-inch-long cable coming from the mike. Strip off the insulation, bring the shielding to the outside of the connector, then solder both it and the inner connector carefully, using a minimum of heat. Now test the mike on your recorder before proceeding.

considerably (in order to get a good bond with the solder) so do this before attaching the cable *and then let it cool again*. Now, when you work with the shielded cable coming out of the mike, it'll be a simple matter to remelt the solder on the side of the connector and do a neat job of fastening down the shield with a minimum of heat. Then finish up as shown.

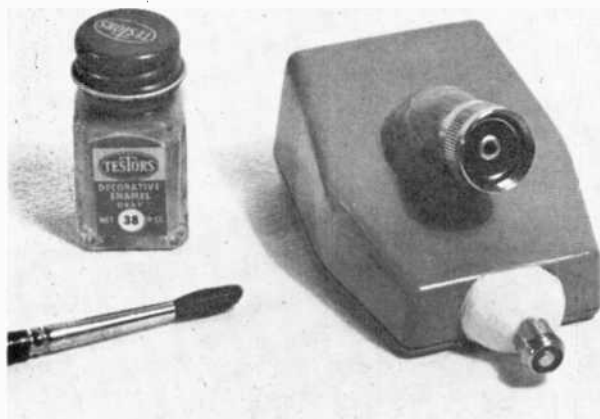


Fig. 11: Be very certain, before leaving the connector on the bottom of the mike to harden into permanent position, that the connector is "aimed" properly (see Fig. 2) for cable direction, for once set it can never be changed again. Then finally, as before with the stand adapter, paint the hardened Epoxy with mike-matching enamel.

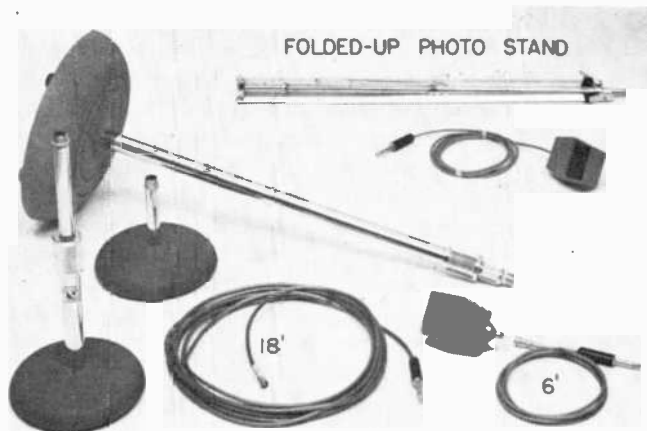


Fig. 12: So which stand system is the one for you? The inexpensive photo light stand that folds so compactly and is lightweight and easy to transport? Or the more expensive, more impressive looking regulation mike stand that comes in many styles and sizes? And of course, with either system, you can have a disconnecting cable.

Stereo, Stereo, Wherefore Art Thou Stereo?

by Jack Bayha

. . . concealment of the sound source from the eye brings out the stereo illusion effect.

AS a pioneer advocate of stereo, and I think I may place myself among this elite, I have been a non-listener of late. Somehow the thrill was gone, and I couldn't be sure just what was missing. We still have our old equipment, and we measured its response etc. No soap, it was still as good as ever, not professional, but in good shape considering its relative antiquity for stereo. We recently acquired a considerable amount of new tapes, but found it was something other than program material at fault. Our search, and its conclusion may be of interest to those of you who really love stereo, and we do, *again!*

To find out why someone has lost interest in something is not easy. Its a combination of psychological factors usually, mostly beyond our ken to understand, certainly to advise someone else about, but we can, we are sure, tell you how to magnify your appreciation of stereo, and even if you have lost the thrill, how to get it back!

The other day a friend came in to hear our tapes, and we found the illusion of stereo was completely absent to him. He sat and listened, he commented on the absence of snap crackle and pop, his record friends, had but was generally unimpressed. This we decided was not proper. We noticed him looking back and forth, from one speaker to the other. This in itself is interesting, and should be noted. The shifting from speaker to speaker of his eyes was a dead giveaway. When is the last time you heard an orchestra playing through two keyholes.?

Could the mere presence of the two speakers mean the difference between true stereo and the synthetic mechanical sound we all know? Astonishingly enough this has turned out to be the case.

We also found to our amazement that the mere concealing of the two speaker cabinets by an acoustically transparent drape caused a rebirth of our own interest. The true psychological reasons behind this too are beyond our explaining, but we can assure you that a wall of drapes speaks with a myriad of voices. Two speaker cabinets, with two voices. A number of very interesting experiments have been tried by the writer, and should be tried by any listener with an experimental turn of mind. The results are actually astounding, indicating coupling between the eye and ear to an extent we believed impossible. We might add that even the so called experts can be taken in by alleged six speaker systems, with floor and ceiling speakers as a claim, as long as they cannot see the source of the sound.

How-to-do-it kits are the rage. Ours consists of a traverse drape rod, an inexpensive set of drapes, and one end of your family room, recroom basement, or what have you. Unless you have a fair amount of room, you cannot do justice to the experiments. The drapes should be skimpy,

preferably matchstick or bamboo, or thin acetate or fiber glass. Heavy drapes will cut high frequency response, although it will not be too seriously noticed due to the illusion accomplished.

The importance of covering a large spread cannot be overemphasized. Even if you have a big console unit with end speakers, you must have the long drape area, or l'illusion stereo won't work.

Once you have the drapes installed, keep the darn things closed. In particular with an old listener friend. You can tell him you have a new multiple speaker system, a reflection system, multi-track or what have you. As long as he can't see the speakers you will be able to get away with murder. Its actually amazing the trained ears you can catch with this gimmick.

With new listeners, let them hear stereo with the drapes closed then open them. Watch the lack of realism appear at once in their eyes. The illusion will be shattered as soon as they see the two speakers.

The use of a spotlight type of lamp shining on the curtain is also an effective implement to achieving the desired illusion. The lack of scratch etc. makes this capable of eliminating the mechanical reproduction effect of recorded music to a point which cannot be achieved with records, the light adds just the right touch of the dramatic.

You will find the drapes add an illusion even to your own listening. Try listening to your system with and without the drapes. The effect of realism of a concealed speaker system has to be tried, I am sure the writers observations won't be believed by anyone who does not try it.

As we go back in the years we recall that the original Emory Cook demonstrations we heard used this technique. We also recall that Ched Smiley at Livingston used this same audio tool in his early demonstrations to the musical greats of the day. We wonder how much part the concealed speakers had to do with ultimate advent of stereo as we know it today? We sort of feel like the fellow who invented the wheel again.

Our own lack of the utilization of this technique has been due to our moving from an area where we had room for this, to one where we didn't. For the last year or so when we have had the room, we just floundered around trying to find out what we were missing. We found that once acclimatized to concealed listening, the speakers standing there with their bare faces sticking out just won't make the grade.

We hope we are able to revitalize the stereo appetites of others in one small measure of the way it has our own.

In answer to the title question, it's hiding behind that curtain, try it and see!



Output of the Wurlitzer Piano is fed directly to the mixer making the pickup, independent of room echo or noise. Any electrically amplified instrument can be so handled.

Professional Tapes from Budget Equipment

by Jack Grimes

. . . . a do-it-yourself idea for home recordists

ONE recording enthusiast, anxious to try out a new tape recorder, invited several musically inclined friends to bring drums, guitars, and sax. Several hours later, the frustrated, budding-recording-engineer, gave up in disgust, for not once had he achieved any balance between the various instruments.

A young singer and song writer, persuaded a quartet to provide choral background for a number. A friend volunteered services of his tape recorder, but the best tape was unusable, from room echo created a booming effect which detracted from the song.

Another group rehearsed for several hours. At last their number was perfect and a tape recorder was brought into use. But, alas, when the tape was played back the recording level was found to have been too high and the music distorted.

These examples are not isolated cases and they have several things in common. First, each person was extremely desirous of obtaining a quality tape—in fact, needed the services of a professional recording studio, but was forced by financial circumstances to use budget priced equipment.

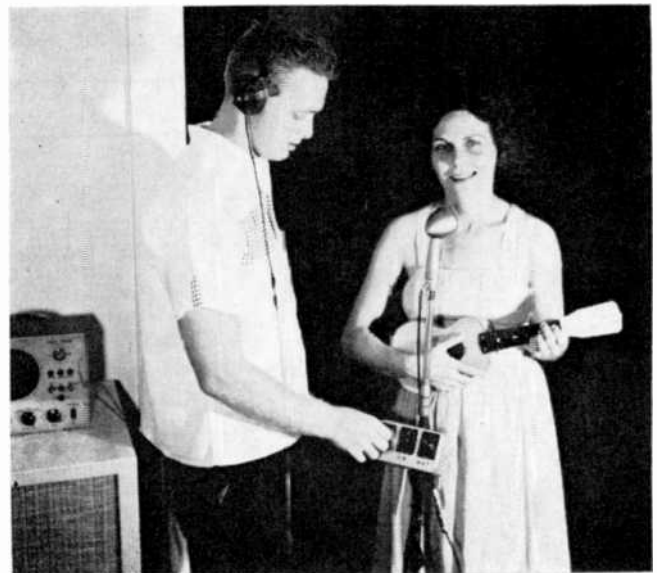
Second, each of the low priced recorders featured only one microphone input.

Third, not one of them provided an audible monitor, the neon bulb or meter indicating only peaks, giving no indication of what was actually going on the tape.

Yet, by the addition of simple, external, equipment, any,

or all of these users can produce near professional tapes, suitable for use as masters (assuming the speed and fidelity of the recorder are satisfactory.)

A clue to the necessary equipment is readily available from watching a professional studio recording session.



Adjusting mixer to maintain voice level in proper ratio to music background. Individual microphone gain controls are used for balance and the gain control of the recorder becomes the master control.

Several things are apparaent. The professional sound man uses a number of microphones, strategically placed, near each sound source. His equipment is located adjacent to the recording room in a soundproof booth, separated from the performers by a double thickness of plate glass.

A top quality amplifier and speaker allows him to hear, via the microphones, all that transpires in the recording room. Separate gain controls permit him to adjust each microphone for balance of instruments and vocal. A master gain control allows him to control recording level without disturbing balance. The plate glass window and intercom system allows him to see and communicate at will, with the performers.

Sound complicated? Difficult to duplicate on a budget? Well, faced with the problem, I managed to achieve the feat with an expenditure of less than \$60.00, and it could have been done for even less had I wished to construct my own equipment.

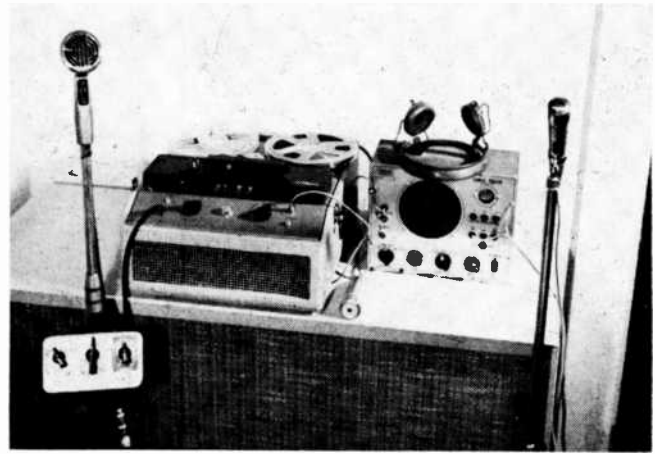
Basic items needed consist of a three (or more) channel pre-amplifier and mixer, a complete auxiliary power amplifier, including speaker, plus a high output, low ohmage set of headphones, extra microphones and connecting cables.

The pre-amplifier must be absolutely hum-free, and in meeting this requirement will, of necessity, be completely shielded. A battery powered, transistorized unit should be ideal, however I purchased a completely built, tube type, three channel unit for only \$19.95, and tapped an amplifier power supply.

The auxiliary amplifier can be an old radio's audio system, a commercial amplifier, or home built rig, as long as two requirements are met. An input gain control is necessary, and a switch must be installed to disconnect the speaker and cut in the headphones during recording. An inexpensive, professional looking, piece of equipment with these features already built in is the EICO SIGNAL TRACER kit, Model #147.

Assembly and operation of the entire outfit is extremely simple. Three or more microphones feed the mixer, and the mixer output goes to the microphone input of the recorder. Individual mike gain controls are used for balance and the gain control on the recorder becomes the master control.

The recorder amplifier output jack connects to the audio



Complete recording set-up, including three channel mixer (mounted on mike stand), three microphones, amplifier (Signal Tracer) and headphones.

input of the Signal Tracer, and the headphones to the test amplifier jack. (Or in another amplifier to the output with speaker disconnected.)

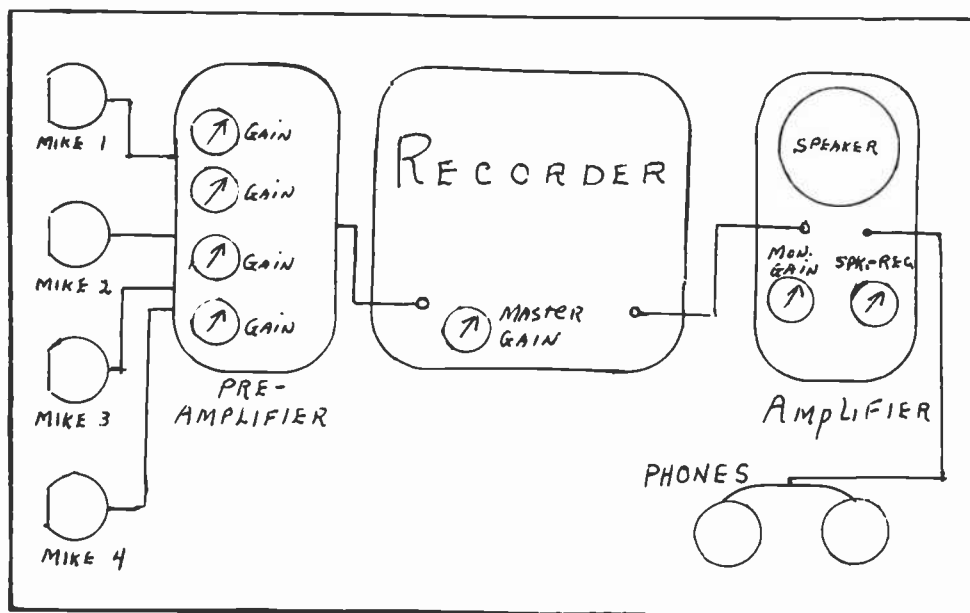
The headphones must have a long connecting wire to permit movement over the entire room—for placing the microphones, adjusting controls, etc.

With this set up basic requirements for professional recording are met. Wearing the tight fitting headphones, with volume turned high to override direct listening, its possible to balance the microphone system through mike placement and by juggling the gain controls. Room echo can be virtually eliminated by placing the mikes close to each sound source and inter-mike pickup held to a minimum by separating the sources.

Constant monitoring of a recording session is provided, with controls for flexible adjustment of balance, recording level and listening level. And on playback the recording gain controls remain adjusted, volume being determined by the auxiliary amplifier control.

If you decide to try this set up, you will find, in comparison, operating a one microphone, budget type recorder, in the conventional manner will seem like a modern version of blind-man's-buff.

And you will find that even with budget priced equipment, you can be making professional tapes.



Three or more microphones feed the mixer, and the mixer output goes to the mike input of the recorder. The recorder amplifier output jack connects to the audio input of the Signal Tracer, and the headphones to the test amplifier jack.

GLOSSARY OF RECORDING TERMS

. . . . an up-to-date listing for all recording enthusiasts.

Tape recording has given new meaning many words in the English language. Numerous terms long used in the field of sound have become important to the tape recorder user. Here — in non-technical language — is a new glossary of some of the most common tape recording terms.

"A" WIND—(rhymes with kind) Magnetic tape wound on the reel with the dull, oxide-coated side of the tape toward the inside. The wind almost universally used today. Recorder design determines whether "A" or "B" wind tape is required.

A.B. TEST—Direct comparison of sound of two tape recorders made by simultaneously playing identical recorded selections on both machines and successively turning on the speaker of first one, then the other.

ACETATE BASE — The super-smooth, transparent plastic film which forms the base of most of the tape manufactured.

AUDIBLE TONES—Sounds with wave frequencies which the average human ear can detect. The figure is usually given as 30 to 15,000 cycles per second.

AUTOMATIC SHUT-OFF — Special switch incorporated in some tape recorders which automatically stops the machine when the tape runs out, or in case of tape breakage.

"B" WIND — Tape wound with oxide out. Seldom used today. Wind can be changed from "A" to "B" by putting half twist in tape and rewinding on recorder.

BASS REFLEX SPEAKER ENCLOSURE—Type of extension loudspeaker cabinet frequently available as accessory item for tape recorders. Design employs a "port" or opening which greatly reinforces the bass, yet requires but a relatively small cabinet.

BIAS, AC, SUPERSONIC OR HIGH FREQUENCY—A high frequency alternating current fed into the

recording circuit to minimize sound distortion as the recording is made.

BALANCE—The relation between high and low frequency tones of a recording. In stereo, the relation between right and left channels.

BINAURAL RECORDING — Recording made with two microphones recorded on separate tracks on the tape and played back through earphones. Also see stereophonic recording.

BULK ERASER—A device for erasing an entire reel of tape at one time. This contains a powerful electro-magnet which generates a strong field.

CAPSTAN—The shaft which drives the tape and pulls it past the head. A roller squeezes the tape tight against the capstan to provide traction.

CERAMIC MICROPHONE—Inexpensive piezoelectric type microphone supplied with many tape recorders which employs a ceramic element to generate voltages. Extremely rugged, it requires more gain than does a crystal microphone.

CLEAN—Opposite of distorted. As applied to sound, means clear, undistorted and noise-free reproduction.

COUNTER—A device driven by the tape recorder mechanism which indicates the amount of tape run past the heads.

CROSSOVER NETWORK—Filter circuits for a multiple loudspeaker system which separates highs and lows and feeds each to the particular speaker designed to handle them.

CROSSTALK — Interference from one channel on a stereo tape with the other, usually due to stray currents generated by adjacent head coils.

CRYSTAL MICROPHONE—Inexpensive piezoelectric type microphone supplied with many tape recorders which employs a natural crystal—usually Rochelle salt—as its element. As the diaphragm moves, it causes the crystal to generate electrical voltages. Should be handled with care, however, and never exposed to heat. Provides best quality of all inexpensive microphones.

CYCLE—One complete oscillation of a waveform. Cycles per second applies to the number of such oscillations in one second.

DB (Decibel)—A unit of measurement of sound intensity. Two db is generally accepted as the smallest change in loudness that can be detected by the human ear. Reference level is zero which is 1 milliwatt of audio power at 1000 cycles. The db scale is logarithmic as is the response of the human ear.

DEAD ROOM—A room which is acoustically treated to prevent sound reflection. Such rooms lack reverberation. The opposite of live room.

DECK — The tape transporting mechanism of a recorder including the heads, drive and tape motion controls. May or may not include the electronics, such as a preamplifier.

DEMAGNETIZER—A hand held device used to remove the magnetism from recording or playback heads. It usually has two prongs which are applied to either side of the head gap.

DISTORTION—Sound containing elements which alter the faithful reproduction of the original sound.

DUAL-TRACK—see tracks.

DUBBING—Copying a tape from one recorder to another.

DUPE—A copy of a tape made by playing the original on one machine and feeding the output to the input of another recorder. Also called a Dub.

DYNAMIC MICROPHONE — High quality electromagnetic type microphone which employs a moving coil in a magnetic field to produce varying voltages.

DYNAMIC RANGE — The ratio between the softest and loudest sounds a tape recorder or other device can reproduce, without undesirable distortion. Usually measured in db's.

EDIT—To change the sequence of a tape recording by deleting section, rearranging or adding new material.

ELECTROMAGNET — A device which produces magnetism when connected to a source of electric current.

The recorder head is an electromagnet energized by the current from the microphone (after passing through an amplifier).

ELECTROMAGNETIC TYPE MICROPHONE—Microphone using an electromagnet to produce varying voltages. Includes ribbon or "velocity" microphones, dynamic or "moving coil" type, and reluctance, or "moving vane" type.

EQUALIZATION—Either boosting or decreasing the intensity of the low, middle or high tones of a recording during recording or playback or both. This compensation serves to correct any deficiencies in the recording system and to increase the signal-to-noise ratio.

ERASE HEAD—An electromagnet which erases any magnetic pattern on the tape by subjecting it to a decreasing magnetic field. A permanent magnet may be employed but is not as satisfactory. The erase head always precedes the record/play head in a tape recorder to clean the tape of signals before it is recorded by the record head.

EYE, MAGIC—A type of tube used as a volume indicator. As the sound current increases the bright wedge-shaped segments come together.

FAST FORWARD CONTROL — Provision on a tape recorder to run tape rapidly through the machine.

FEEDBACK — A howl or sound from a loudspeaker caused by sound from the speaker entering a live microphone connected to the same recorder or amplifier powering the speaker. The sound emerging from the speaker is picked up by the mike and fed back to the speaker where it again enters the mike; this continues until it produces the howl.

FEED REEL—Reel on the recorder which supplies the magnetic tape.

FIDELITY—A word meaning the faithfulness of the reproduction as compared to the original sound.

FLAT RESPONSE—The ability of a sound system to reproduce all tones—low and high—in their proper proportion. A high fidelity sound system might be specified as having an essentially flat response, plus or minus one db, from 30 to 15,000 cycles per second.

FLUTTER—A high speed variation in tone caused by faults in the tape moving mechanism or by sticky tape which does not move past the head at a constant speed. See wow.

FOOT SWITCH—Electrical or mechanical foot pedal device for stopping and starting a tape recorder without use of hands. Especially useful for dictating and transcribing.

FREQUENCY — The number of cycles per second of a sound wave—the pitch of a sound.

FREQUENCY RANGE — The range between the highest and lowest-pitched sounds which a tape recorder or other sound system can reproduce at an useable output, or volume, level.

FREQUENCY, SUBSONIC — A sound frequency too low to be heard by the ear. Usually used as a control signal to actuate a slide projector or other device from the tape.

FREQUENCY, SUPERSONIC—A sound frequency too high to be heard.

FREQUENCY RESPONSE — The outside limits of transmission or reproduction of sound by a piece of audio gear. A "flat" response is one which varies not at all over the range specified.

GAIN—Amplification. "Riding the gain" is adjusting the volume control to keep the sound within the limits of the equipment. Too much "riding" destroys the naturalness of the sound.

GAP—The space between opposite poles of a recording or erase head. Usually given in mils or microns. Gap length is the distance across the gap, the width is the distance from top to bottom and the depth, from the head face to the point where the pole pieces diverge for the coils.

GUIDE—The part or parts of a recorder which align the tape so that it passes properly over the head.

HEAD—A device which is basically an electromagnet. It consists of a ring-shaped metal core broken at the gap where the tape touches it. Coils wound on either side of the gap either energize the head when in recording mode or are energized by the passage of the magnetic domains on the tape past the gap when in the play mode.

HEAD, DUAL TRACK—A head with one pole piece having a gap which covers only the upper half of the head recording one track. The second track is recorded by flipping the tape and recording again.

HEAD, ERASE — An electromagnet head which demagnetizes the tape as it passes the gap so that a new recording may be made on the tape.

HEAD, FULL TRACK—A head with a gap covering the entire width

of the tape.

HEAD, QUARTER TRACK — A head having two pole pieces which cover the first and third quarters of the tape. The second and fourth quarters are recorded by flipping the tape.

HEAD, RECORDING — An electromagnet which produces the varying magnetism in response to current variations from the microphone. These variations are recorded on the tape as it passes the gap. The same head is frequently used for playback.

HEAD, PLAYBACK—Construction is the same as the record head except that sometimes a finer gap is used. As the magnetized tape passes the poles of the gap a current is induced in the coils and this, when amplified, becomes the current fed to the loudspeaker to reproduce the original sound.

HEAD ALIGNMENT — Adjusting the angle of the head so that the gap is exactly perpendicular to the tape.

HIGHS — Abbreviation of High Frequencies.

HISS—A hissing noise which may originate in the amplifier or from the tape itself. Hiss will increase if head demagnetization is not done at intervals and will be recorded on the tape even with the machine in play.

HUM—A background noise caused by poor shielding or current loops in the equipment. Generally low in pitch.

IMPEDANCE—The resistance effect of a circuit or component (as applied to alternating current). Expressed in ohms. Hum or distortion may result if impedances are not matched when feeding current from a source to an input.

INDEX COUNTER—An odometer type counter which makes it possible to note the location of any particular selection of a tape, thereby making it easier to find. Many late model tape recorders feature built-in index counters.

INPUT—1: a jack or other connecting device designed to accept an incoming signal. 2: the incoming signal itself.

IRON OXIDE—The coating which is applied to the backing (using a binder to hold it) in making magnetic tape. The iron oxide has the ability to hold variations in magnetism indefinitely.

INVERTOR—Device to change one type of electrical current to another type. Frequently used to change 6 volt or 12 volt direct current to 110

volt alternating current for operation of a tape recorder in an automobile.

I.P.S.—Abbreviation for tape speed in inches-per-second.

JACK—Receptacle for a plug connector leading to the input or output circuit of a tape recorder or other piece of equipment.

LEADER TAPE — Non-magnetic tape used to provide blank spaces between recorded segments or attached to ends of the tape for identification and protection of the tape ends.

LEVEL—The volume of sound or the signal. "Record level" is one application.

LEVEL INDICATOR—A device on the tape recorder to indicate the level at which the recording is being made, and which serves as a warning against under-recording or over-recording. It may be a neon bulb, a "magic eye", or a VU meter.

LIVE ROOM—A room which lacks sound absorbing qualities and hence produces many reverberations of a sound. Opposite of Dead Room.

LOUD SPEAKER — A device to convert the varying currents from the power amplifier to air waves that may be heard by the ear.

LOWS—Abbreviation for Low Frequencies.

MAGNETIC FIELD — The area around an electromagnet or conductor where magnetism exists.

MICROPHONE, CERAMIC — A microphone which has a ceramic element as its generating unit. Usually found in inexpensive mikes.

MICROPHONE, CONDENSER — A microphone having the diaphragm suspended a very small distance in front of a metallic plate. Operates on varying capacitance as diaphragm moves toward or away from plate.

MICROPHONE, CRYSTAL — A microphone that generates current by the bending of a crystal, attached to its diaphragm. Must be protected from heat and shock.

MICROPHONE, DYNAMIC — A microphone which has a coil suspended in a magnetic field. The motion of the coil generates the current.

MICROPHONE, RIBBON—A microphone having a metallic foil ribbon suspended in a magnetic field. Operated by the sound pressure.

MICROPHONE, VARIABLE RELUCTANCE—A microphone with a moving armature suspended in a coil subject to a magnetic field.

MIL—One thousandth of an inch.

Standard tapes are 1½ mils in thickness, extra play tapes 1 mil and double-play tapes ½ mil.

MIXER—A device which permits the combining of two or more inputs into one which is fed to the recorder.

MONAURAL—A recording made with one or more microphones but which is recorded on only one track. See Stereophonic.

MONAURAL RECORDER — Standard type tape recorder which uses a single-channel system consisting of one microphone, amplifier and recording head (as opposed to a binaural or stereophonic recorder).

MONITOR—1: listening to the signal that is being recorded, either as it comes into the recorder or from the tape after it has been recorded. This latter requires a recorder with separate record and playback heads. 2: changing the volume to compensate for variations in volume.

MONITOR HEAD — Additional playback head featured on some tape recorders making it possible to listen to the material off the tape while the recording is being made.

MOTOR BOARD — Also called tape transport mechanism. The platform, or assembly, of a tape recorder on which the motor (or motors), the reels, the heads and the controls are mounted. It includes those parts of the recorder other than the amplifier, pre-amplifier, loudspeaker and case.

MUDDY—Blurred sound reproduction, opposite of Clear.

MYLAR—A DuPont base material for magnetic tape. Is stronger than acetate and impervious to changes in temperature and humidity.

NARTB CURVE—Standard playback equalization curve set by National Association of Radio and Television Broadcasters.

NOISE—Unwanted sound in a recording or extraneous sounds.

OUTPUT—1: the jack or other connector from which current is taken to feed other equipment, such as a loudspeaker. 2: the signal delivered by any device, microphone, amplifier, etc.

OVERLOAD — More volume than can be handled by the equipment, either on record or playback.

OXIDE — Microscopically small particles of ferric oxide dispersed in a liquid binder and coated on a tape backing. Red oxide is most common, although "High Output" magnetic tape employs a dark green oxide.

These oxides are magnetically "hard"—that is, once magnetized, they remain magnetized permanently, unless they are demagnetized by exposure to a strong magnetic field.

PATCH CORD — A cord, sometimes called an accessory cord, used to connect the tape recorder to other audio gear such as phonos, radios, amplifier, speakers, etc. Suitable connectors are placed on each end.

PLUG—Circuit connector which is inserted into a jack.

PM SPEAKER—Loudspeaker using a permanent magnet in its voice coil.

POLYESTER BACKING — Plastic film backing for magnetic tape used for special purposes where strength and resistance to humidity change are important.

PORTABLE RECORDER—Usually any tape recorder designed to be easily moved or carried about, but in most cases requiring an A.C. power supply. Some portable recorders, however, are self powered and use batteries or a spring motor; hence are completely portable.

POWER AMPLIFIER—An amplifier designed to boost signals to sufficient strength to operate a loudspeaker.

POWER CORD — Cord for connecting the tape recorder to 110 volt A.C. current.

PRE-AMPLIFIER — An amplifier that raises extremely weak signal levels such as those from a microphone, magnetic playback head, or a phonograph pickup to a level useable by the power amplifier. Some tape recorders combine the pre-amp and the power amplifier. Others—especially the tape recorders designed for use in high fidelity music systems—may feature a separate pre-amplifier. In such cases, the pre-amp includes an equalization circuit. In addition, the bias oscillator (necessary to record on tape) is often mounted in a unit with the pre-amp.

PRESSURE PADS—Small pieces of felt mounted on spring arms which hold the tape against the heads. If these become glazed and hard, they produce a squeal similar to chalk being drawn across a blackboard.

PRESSURE ROLLER—Also called "capstan idler" or "puck". A rubber-tired roller which holds the magnetic tape tight against the capstan by means of spring pressure to insure constant tape speed and prevent slippage.

PRINT THROUGH—The transfer of magnetism from one layer of a tape to another while the reel is in storage.

Produced by over-recording and high temperatures.

QUICK-STOP CONTROL — Feature of some tape recorders making it possible to stop the movement of the tape temporarily without switching the machine off "play" or "record" position. Essential for a tape recorder used for dictation.

RECORDING NOISE—Noise induced by the amplifier and other components of the recorder. High quality magnetic tape itself is inherently noise-free.

RELUCTANCE MICROPHONE—Inexpensive electromagnetic type microphone supplied with many tape recorders which is extremely rugged and durable but generally not as high quality as crystal or ceramic types. Employs a metal "wand" which moves in a magnetic field to produce varying voltages.

REVERBERATION—Reflection of sound from room surfaces adding echo to the original sound. The greater the time delay between the sound and its echo, the greater the reverberation.

REWIND CONTROL—Button or lever for rapidly rewinding tape from the take-up reel to the feed reel.

SELF-POWERED RECORDER — Tape recorder containing its own power supply, either a combination of wet and dry cells to power the unit, or dry cells in conjunction with a spring-driven motor.

SHIELDING—Enclosing wires or magnetic heads with metal to prevent stray currents from reaching them and causing hum. Most shields are "grounded" to the chassis of the recorder.

SIGNAL-TO-NOISE RATIO—The level or volume of the signal relative to the level of the noise.

SINGLE-TRACK RECORDER—A tape recorder which records only one track on the tape. Usually a full-track recording head is used which covers the full width of the 1/4-inch tape although some machines use a narrower, half-track recording head which records a single track down the middle of the tape. Output of a full-track recording is theoretically double that of a half-track recording, although actually the output is only slightly greater because of improved half-track head design.

SPEAKER—Abbreviation of Loud Speaker.

SOUND-ON-SOUND — A technique of adding a second part while the first is being played from another

track or machine. The result is a combining of the two parts on one track.

SPEED—In recording, the speed at which the tape moves past the heads given in inches per second (ips). Popular tape speeds are 7½, 3¾ and 1⅞ inches per second. The professional recording speed is 15 inches per second.

SPINDLES—The posts on which the reels of tape are held on the recorder. One is the supply spindle, on which the raw tape is placed and the other the takeup spindle which receives the recorded tape.

SPLICE — A joint between two pieces of tape. Splices are made by butting the ends of the tape together and applying a piece of splicing tape to the shiny side of the magnetic tape to hold the pieces together. The tape is usually cut at an angle where joined to make a smoother transition between pieces.

SPLICER—A device to hold the tape in place while a splice is made. Also includes cutting and trimming blades in some makes.

SPLICING BLOCK—A simple device to hold the tape while a splice is made. May have hold-down arms or channel slightly narrower than tape width. Does not have cutting or trimming blades.

SPLICING TAPE — An adhesive tape with special adhesive coating which will not soften and "bleed." Cellophane tape should not be used for splices.

SQUEAL—A noise produced by glazed or dirty pressure pads rubbing against the tape as it runs through the machine. Can be stopped by cleaning pads or replacing them. Squeal can also be caused by inferior tape which does not have internal lubrication.

STEREOPHONIC SOUND—"Dimensional" or "directional" sound reproduction achieved through use of two or more sound tracks, or channels, heard simultaneously through loudspeakers arranged in the same relative positions as were the microphones during the recording. In practice two channels are used, one on each track of a standard tape, with a recording head for each channel. Differs from binaural sound reproduction in microphone placement during recording and in using loudspeakers rather than headphones (required for binaural sound).

SYNCHRONOUS—A driving motor which is controlled by the fre-

quency of the current which runs it. Provides maximum reliability in timing.

TAKE—Making of a section of a recording.

TAKE-UP REEL—Reel on the tape recorder which accumulates the tape as it is recorded or played.

TAPE, ALIGNMENT — A special recorded tape used to check the alignment of recorder heads. It has a series of tones recorded which are played while the head is adjusted for maximum output.

TAPE CARTRIDGE—"Magazine" or holder for a length of magnetic tape which can be slipped into a tape recorder and played without threading up. Usually the tape is an endless loop feeding out from the center and back onto the roll on the outside. Some cartridges employ two reels, and must be turned over at the end of the tape.

TAPE DECK—Tape recorder designed for use in a high fidelity music system. Usually consists only of motorboard mechanism and does not include pre-amplifier, power amplifier, speaker or case.

TAPE GUIDES—Grooved pins of non-magnetic material mounted at either side of the recording head assembly to position the magnetic tape on the head as it is being recorded or played.

TAPE LOOP—A length of magnetic tape with the ends joined together to form an endless loop. Used either on standard recorder, special "message repeater" type units, or in conjunction with a cartridge device, it makes it possible to play back a recorded message repetitively without rewinding the tape.

TAPE, MAGNETIC — A high-quality plastic ribbon coated with magnetic iron oxide capable of retaining indefinitely magnetization placed on it by the recording head.

TAPE PLAYER—Unit for playback only of recorded tapes. Sometimes called a tape phonograph.

TAPE, PRE-RECORDED — Tape which has a program already recorded on it when purchased. This term is giving way to the more logical Recorded Tape.

TAPE SPEED — Speed at which tape moves past the recording head. Standard tape speeds for home use are 3¾ inches per second (abbreviated ips) and 7½ ips. Faster speeds are 15 ips and 30 ips. Slower speeds some-

times used are 17/8 ips and 15/16 ips. Faster speed makes possible improved high-frequency response, while slower speed means greater tape economy. If a tape is recorded at 3 3/4 ips, then played back at 7 1/2 ips, all sound will be raised one octave in pitch. Cutting the speed in half lowers a tone one octave.

TAPE, TIMING—A non-magnetic tape which is marked at intervals so that it may be cut to length for the number of seconds desired and spliced between takes on a magnetic tape.

TAPE, RAW—Tape which has not been recorded. Also called Virgin Tape.

TAPE, RECORDED—Tape which has program material on it when purchased.

TAPE DRIVE — The motor and mechanism which moves the tape at correct speed and tension past the heads.

TELEPHONE PICKUP—Type of induction coil device which slips over a telephone receiver, or upon which entire telephone may rest, used to pick up both voices during a telephone conversation for recording on tape.

THREADING SLOT—Slot in recording head assembly cover-plate into which tape is slipped in threading up the reels for use of the recorder.

tone CONTROL—Control knob on tape recorder amplifier used to vary bass and treble response to achieve most desirable balance of tone.

TRACK—The magnetized area on a tape laid down by the head in recording.

TRACK, ADD—Adding a second track to a tape in synchronism with one already recorded on it. Requires a machine which can play the lower channel while recording on the upper. System widely used in language instruction. Practice track may be changed at will without altering master track in any way.

TRACK, DUAL—A track which occupies slightly less than half of the tape width. This is laid down by a head having a single pole piece situated so that the top of the tape is recorded first. Without rewinding, the tape is then flipped and recorded again, placing a second track on the tape in a direction opposite to that of the first one.

TRACK, FULL — A track which occupies the full width of the tape.

TRACK, QUARTER—A track occupying slightly less than one-quarter of the tape width, i.e. four tracks on standard 1/4 inch tape. Tracks may be recorded and played individually on most machines for monaural or, for stereo, tracks 1 and 3 and 2 and 4 are paired. May be thought of as dual track dual track.

VOLUME—An acoustical—rather than electrical—measurement, which refers to the pressure of the sound waves in terms of dynes per square

centimeter. The louder the sound, the greater the pressure. Most technicians prefer to talk in terms of decibels.

VTR—Abbreviation for Video Tape Recorder.

VTR—Video tape recording. Recording and reproducing television picture tube signals on standard—but highest quality — magnetic tape ("Scotch" brand Instrumentation tape No. 109). It is extremely difficult to design a tape recorder capable of handling wide frequency range up to 4 million cycles per second. Usually several magnetic tracks are recorded side by side on a 1/2-inch tape at a considerably higher speed than used in home recording, each track recording a certain range of frequencies. Improved quality and lower operating cost are expected to enable it to replace movie film for television use.

VU METER—A meter which indicates the recording or playback volume in terms of volume units, an electrical unit of power.

WATT—A unit of electrical power. Usually used to denote the output of speakers or the amount of current needed to operate a device.

WOW—A change in sound pitch brought about by a variation in speed of the tape past the head. May be a single change or one which recurs periodically. A very fast wow is termed a flutter.

JUST LIKE THE MOVIES

MAKING transitions from one subject to another on a tape can be done just as a transition from one scene to another is made in the motion pictures.

These can vary from an abrupt change to a long transition similar to the lap dissolves used in the films.

The most abrupt change is made by making a splice at right angles to the tape, rather than employing the usual angled cut. Such a splice is also useful where a click or pop is to be removed inasmuch as little material is removed on either side of the unwanted part.

A crossfade may be made using splicing technique by making a long angled cut, of perhaps as little as 10° which would pass the head over a number of inches of tape. If the splice is made using blank tape as part of the splice a simple fade will be the result. If a recorded tape is spliced to another recorded tape, one will fade out as the other increases in intensity.

This is most easily accomplished on full track tapes

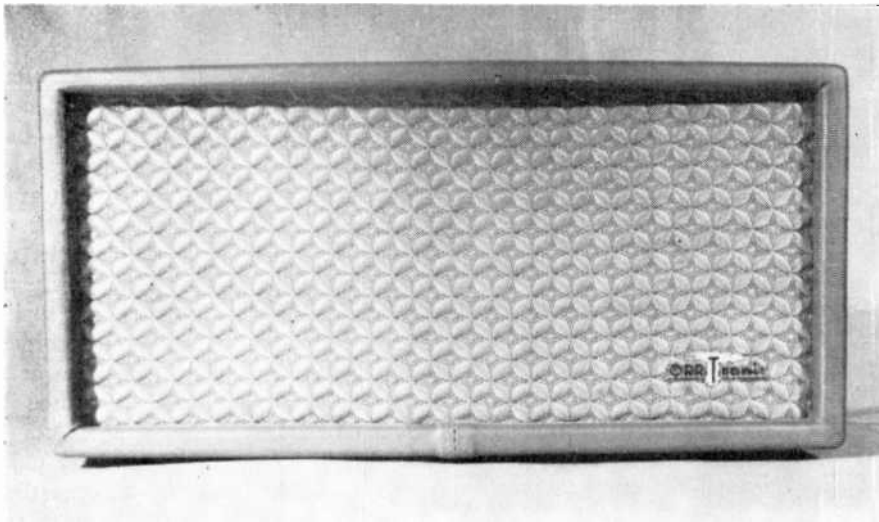
where the entire width of the tape may be used. It may be done also on dual track tape but the slant of the cut must be decreased because only half the tape is covered by the sound track. On four-track tape it is just about impossible.

The same kind of fades or laps may be secured through the use of a mixer where one signal is faded while the other is brought up in volume. Here the two signals are fed into different channels, each controlled by a potentiometer, and combined into one signal which is fed into the tape recorder.

Always remember that a good splice should be seen and not heard. The cut ends should butt exactly together so that no splicing tape shows through, which may stick to heads, guides or the next layer of the tape. Only one thickness of splicing tape should be used or the tape may be so stiff at the splice point that it will not conform to the head curve, or cause flutter in passing tape guides.

NEW PRODUCT REPORT

STA **OK** STED



Product: ORRtronic Clarion Amplifier-Speaker

Manufacturer: J. Herbert Orr Enterprises, 714 Wesley Street, Opelika, Alabama

Price: \$59.95

ORRTRONIC CLARION AMPLIFIER-SPEAKER

... bookcase-size unit suitable for stereo channel
or as speaker for FM tuner

THIS amplifier/speaker system should find a wide variety of uses for it is quite versatile. It may be used as an amplifier/speaker system for use with a tuner or phono, it can serve as the second channel unit for stereo playback, it can be used as a low power PS system by plugging in a crystal microphone or it may serve as an auxiliary speaker for almost any audio application.

The amplifier, which is housed within the case, has 8 watts power which is more than ample for ordinary use. The amplifier is a four-tube unit con-

sisting of a 7025 dual purpose pre-amp and phase inverter, two 6AQ5 output tubes and a 5Y3 rectifier. The unit operates on 110 volt power and draws 60 watts.

In addition to the on/off switch volume control and tone control which are mounted on the right side of the case, the amplifier/speaker also has an audio input jack on the back which is a multi purpose input being suitable for radio, phono, TV, tape recorder or crystal mike. A power cord and an audio connecting cord are furnished with the speaker.

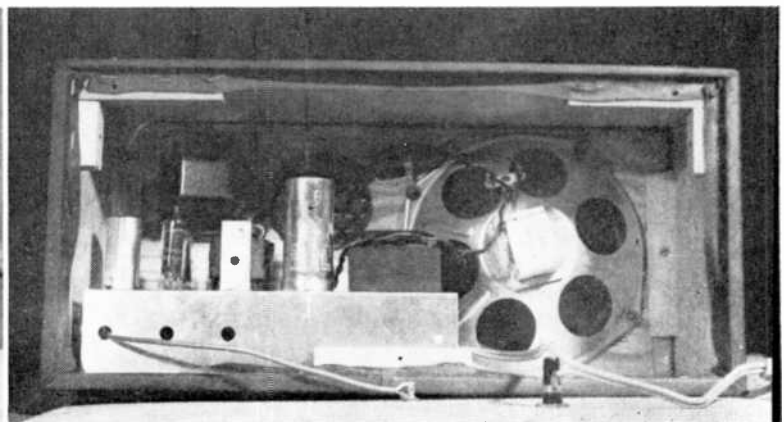
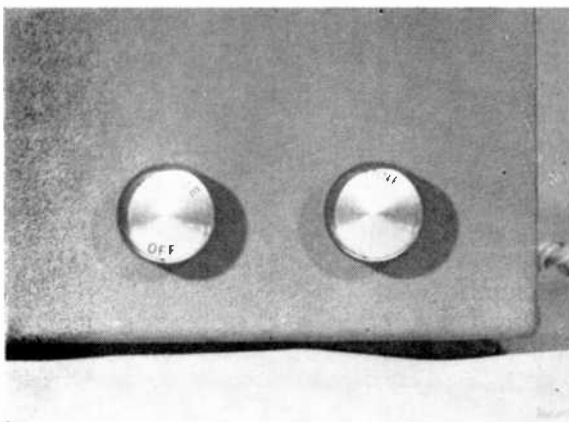
The unit measures 18" wide, 9" high and 8 1/4" deep, small enough to fit on a bookcase shelf.

The amplifier is a push-pull design for minimum distortion at all levels and the woofer and tweeter are balanced through a crossover network.

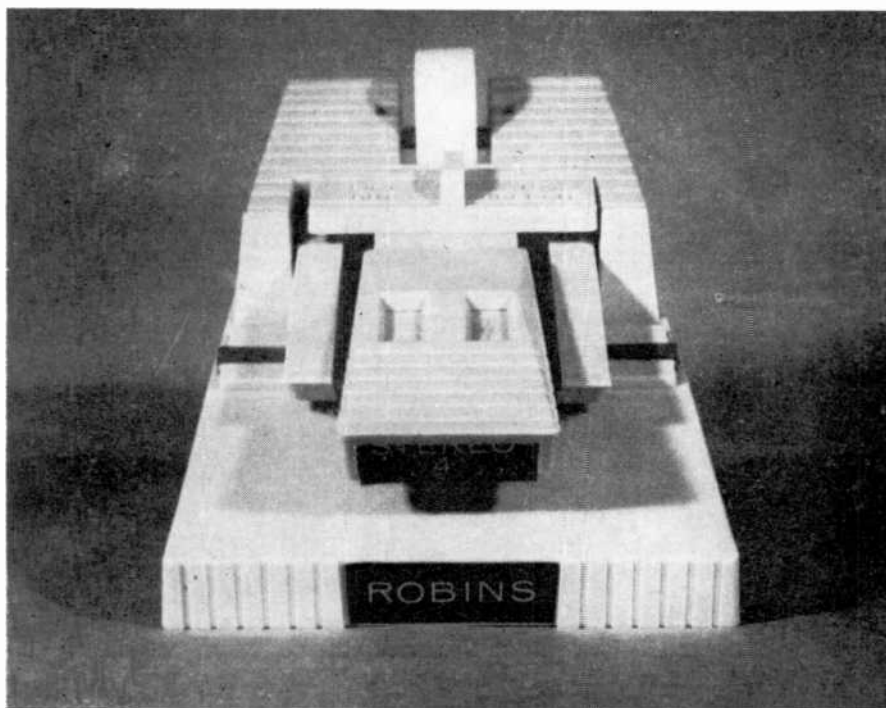
The amplifier/speaker was tried out by connecting it to a variety of sound sources, from tape recorders to tuners and the results were uniformly excellent. The design of the cabinet and the circuitry employed provide a wide range of sound of surprising quality for such a small size unit. Because of the low hum and noise (55 db below the rated output) and the low distortion the sound was very clean and well-balanced.

The firm also markets a 10 watt version of this unit called the "Trubadour" which sells for \$99.95.

The unit under test performed very satisfactorily. If you are in the market for an auxiliary amplifier/speaker to be used with a tuner, for multiplex operation or as a second channel for stereo we believe this unit is worthy of your consideration. The construction is good and the finish will blend well with any room surroundings.



Left: The on/off switch and volume control knob, and the tone control are mounted on the right hand side of the cabinet. Right: the 8 watt amplifier built-into the case and the 3 1/2" tweeter and 8" woofer. The case is covered with Dusky Brown vinyl and the face is covered with modern patterned grille cloth.



GIBSON-GIRL STEREO 4 SPLICER

... new unit makes less trim on edges to protect outer tracks of 4-track tapes

WITH the advent of the four-track system of tape recording every bit of the available space on the tape has been used. In the dual track system each of the two tracks occupies approximately half of the tape width. In the four-track system, each track is slightly less in width than one-quarter of the tape. In addition, the two outside tracks, 1 and 4, go to the very edge of the tape.

A properly made splice will not have any splicing tape overhanging

the tape edge. Should this happen there would be interlayer adhesion or the tape might stick to heads or guides at the point of the splice.

The best way of insuring that this does not happen is to cut slightly into the joint at the point of the splice, when making the trimming cut.

Since the four-track tape uses the edges of the tape any cut will also cut out some of the soundtrack and thus must be held to a very minimum.

With dual track tape, a cut of

Product: Robins Gibson Girl Stereo 4 Splicer

Manufacturer: Robins Industries, Corp., Flushing 56, New York

Price: \$11.50

1/32nd of an inch was normal and made no appreciable difference.

Robins Industries which developed the "Gibson Girl" line of splicers, so called because of the shape of the cut made by the splicer, has now developed the "Stereo 4" which takes a much finer cut from the edge of the tape than former splicers.

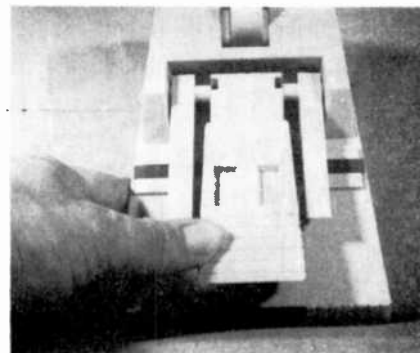
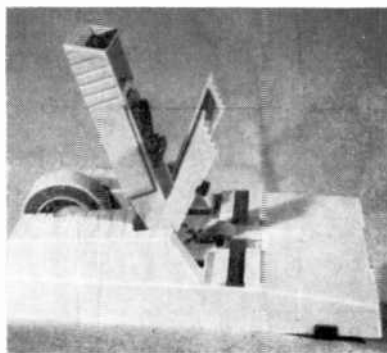
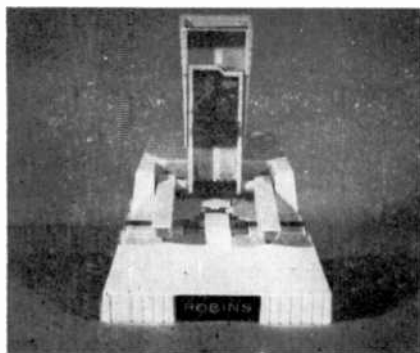
In addition, because the cut is critical, the blades are adjustable by means of a screw.

Another innovation is found in the windows on the operating lever which show whether the cutter blade, or the trimming blade, is in position. This is a distinct improvement over former models.

Also improved is the feature which feeds the splicing tape through the base to the splicing position from the roll mounted on the rear of the splicer.

The unit is made of plastic except for the necessary metal parts. A piece is provided to hold the operating lever in closed position when not in use. It is lifted out when the splicer is to be operated.

The unit worked well under test and the cut taken from the edges of the tape was small enough to make no appreciable difference in the sound as the splice passed the head. It is equally suitable for two or four track tape.



Left: The cutting and trimming blades are mounted in a moveable assembly so that each may be brought into proper position in turn. Tape hold-down arms are on either side. Center: roll of splicing tape is at rear of unit and feeds through the base to the proper position for splicing. Right: cutter bar has two windows which indicate "Cut" or "Trim." Blades are set to just barely trim tape in order to preserve maximum track width at splice.

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crunch

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