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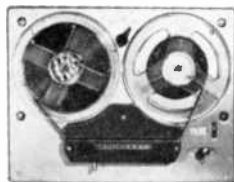
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TAPE RECORDING

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NEW TAPES

★—Fair

★★—Good

★★★—Very Good

★★★★—Excellent

CLASSICAL

Reviewed by Robert E. Benson



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

GRIEG: Peer Gynt Suite No. 1
ALFVEN: Swedish Rhapsody
SIBELIUS: Valse Triste
SIBELIUS: Finlandia (with the Mormon Tabernacle Choir) Philadelphia Orchestra conducted by Eugene Ormandy
COLUMBIA MQ 380
4 track, 7½ ips
\$7.95...41 min.

The feature attraction of this tape is the *Swedish Rhapsody* of Alfven, a lively symphonic poem based on Swedish folk songs and dances, with brilliant orchestral writing. Other music on the tape is well known and requires no comment.

To the casual listener, this tape offers bright reproduction of expected superior performances by Ormandy and his orchestra. However, to the careful listener, it is soon apparent that these glossy sounds are very unrepresentative of the sound of a symphony orchestra. There is virtually no dynamic range here—many string passages are as loud as the full orchestral climaxes, indicating a constant manipulation of controls. The Mormon Tabernacle Choir, which according to the notes accompanying the tape consists of 375 voices, sounds like no more than fifty or sixty. How thrilling this performance of *Finlandia* would have been if it had the BIG sound it deserves.

Columbia has processed the tape well, although highs must be cut a bit.



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

TCHAIKOVSKY: Nutcracker Ballet complete) Bolshoi Theater Orchestra conducted by Gennady Rozhdestvensky
ARTIA ASTB 503
4 track, 7½ ips
\$11.95...93 min.

Will the senseless duplication ever end? This is the *fourth* complete *Nutcracker Ballet* on four-track tape!

The Bolshoi Theater Orchestra has the typically Russian sound quality—nasal woodwinds and tremulous horns, and unless you must have the score played by a Russian orchestra and conductor, you'll

find any of the other three versions are better than this. Stereo effect here is good, but many of the louder passages are distorted. My personal preference is for the New York City Ballet version, with Robert Irving conducting (Kapp K 45007) \$11.95.



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

BEETHOVEN: Piano Concerto No. 1 in C, Op. 15 Sonata No. 22 in F, Op. 54 Sviatoslav Richter, pianist; Boston Symphony Orchestra conducted by Charles Munch

RCA FTC 2070
4 track, 7½ ips
\$8.95...48 min.

This is reported to be Richter's favorite of all piano concertos, and he plays it lovingly, with crystal-clear technique and solid tone, avoiding the exaggerations displayed in his earlier Victor tape of two Beethoven piano sonatas (FTC 2069, \$8.95). One cannot help but be disappointed that during his tour of the United States Richter recorded only two piano concertos—the present tape and his superb performance of the *Piano Concerto No. 2* by Brahms (RCA FTC 2055, \$8.95). He should have recorded some of the great romantic concertos, particularly the Rachmaninoff *Concerto No. 3*; perhaps he will get around to this on his next visit.

The Beethoven *Concerto No. 1* is a relatively simple work compared to the same composer's last three concertos, but its simplicity is all the more disarming when it is played as well as it is here. Beethoven's rather unfamiliar *Sonata No. 22* is a welcome addition to the four-track tape catalog.

The solo piano is nicely balanced against the orchestra and reproduction of the Boston Symphony Orchestra is superb—bigger and more resonant than most of their recordings. It is to be hoped that this tape is an indication of a fresh RCA viewpoint of the way the Boston Symphony Orchestra should sound on recordings. The review copy had a constant buzz on one of the channels on track one, but this has doubtless been corrected on later copies.



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

MOUSSORGSKY: A Night on Bald Mountain BORODIN: In the Steppes of Central Asia CHABRIER: Espana Rhapsody DEBUSSY: Prelude to The Afternoon of a Faun DUKAS: The Sorcerer's Apprentice

Amsterdam Concertgebouw Orchestra conducted by Jean Fournet

EPIC EC 810
4 track, 7½ ips
\$7.95...48 min.

An appealing collection of orchestral display pieces played by the Mighty Concertgebouw Orchestra conducted by Jean Fournet, who gives rather straight-forward interpretations, perhaps feeling the scores already contain enough color as they are. Orchestral playing is superb, particularly the brass in *Night on Bald Mountain*.

If reproduction were better, this collection could be recommended without reservation. Unfortunately, the sound, while rich and free from distortion, lacks really defined timpani and bass, and the brass could have more bite. There are two rather obvious but inoffensive tape splices in the Moussorgsky, and one might question the stereo effect here, which places the woodwinds rather far to the left. This would be a rather stupendous tape if the sound did justice to the Concertgebouw Orchestra.

If it's *Night on Bald Mountain* you want, Reiner's with the Chicago Symphony is the most exciting ever recorded (RCA FTC 2037, \$8.95) and it is coupled with other Russian show pieces, with Victor's best sound.



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

OFFENBACH: Gaité Parisienne GOUNOD: Ballet Music from Faust Orchestra of the Royal Opera House, Covent Garden; Georg Solti, cond.

LONDON LCL 80081
4 track, 7½ ips
\$7.95...56 min.

Another fine bargain from London tapes, with almost an hour of razzle-dazzle music for \$7.95. Offenbach's wonderfully vivacious score has rarely sounded better, and the Ballet Music from *Faust* is an attractive plus, especially when played as vigorously as it is here.

There's plenty of whack to the sound, which is big and spacious, although bass is somewhat blurred by over resonance. However, the overall effect is one of high spirits, and this is a spectacular tape for display purposes, beautifully processed.



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It's All Right With Me

Stella by Starlight

Out of My Dreams

El Choclo

Blues in The Night

Jazz Pizzicato

Gigi

Title Song

Waltz at Maxim's

Thank Heaven for Little Girls

The Parisians

I Remember It Well

The Night They Invented Champagne

Reprise: Gigi

My Fair Lady

On the Street Where You Live

I've Grown Accustomed to Her Face

With a Little Bit of Luck

I Could Have Danced All Night

The Rain in Spain

Wouldn't It Be Lovely

Show Me

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SEMI-CLASSICAL



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

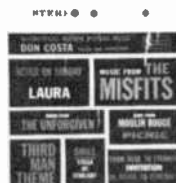
GERSHWIN

Sequence A: Concerto in F: First Movement: Allegro, Second Movement: Adagio: Andante con moto poco accelerando Sequence B: Concerto in F: Third Movement: Allegro agitato, "I Got Rhythm" Variations, Cuban Overture
Boston Pops/Fiedler, Earl Wild, Pianist
RCA FTC-2101
4 track, 7 1/2 ips
\$8.95 46 mins.

Here is another very good Boston Pops offering in which Gershwin comes to life again under the leadership of the reliable Arthur Fiedler. Earl Wild does the piano offerings as only he can do them, for he is a master at interpreting Gershwin.

The "Cuban Overture" and the "Concerto in F" are not as well known as the famous "Rhapsody," but they offer sparkling originality, particularly in the "I Got Rhythm" variations number. Excellent fidelity and stereo effect make this tape one that is certainly worth adding to your library of "Pops" concerts.—*F. N. West*

SHOWS



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

MAGNIFICENT MOTION PICTURE

MUSIC

Side 1: The Misfits, Theme From The Unforgiven, An Affair To Remember, Invitation, The Song From Moulin Rouge, Laura, The 3rd Man Theme

Side 2: Smile, From Here To Eternity, Picnic, Stella By Starlight, Never On Sunday

Don Costa Voices and Orchestra
UNITED ARTISTS UATC 2226
4 track, 7 1/2 ips
\$7.95... 35 mins.

This is another in the ever growing list of motion picture theme music albums that are being played by almost all of the popular orchestras today. Don Costa, with his orchestra and chorus, has assembled a group of popular favorites from films of the last few years, including "Never on Sunday," "Laura," and "Third Man Theme."

It's a nice, easy-to-listen-to package of mood music, with high but not strident violin and choral combinations, counterbalanced by resonant lower register orchestrations.

Well recorded with excellent stereo effects, it's worth adding to your library.—*F. N. West*



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

THE KING AND I

Side 1: Overture, I Whistle A Happy Tune, My Lord and Master, Hello, Young Lovers, The March of Siamese Children, A Puzzlement

Side 2: Getting To Know You, We Kiss in A Shadow, I Have Dreamed, Shall I Tell You What I Think of You?, Something Wonderful, Song of the King, Shall We Dance?, Something Wonderful (finale)

Starring Deborah Kerr and Yul Brynner
CAPITOL ZW 740
4 track, 7 1/2 ips
\$7.98... 43 mins.

Rodgers and Hammerstein's "King and I" first appeared several years ago as a Broadway musical and was later made into a motion picture. This is a reproduction of the original sound track from the movie and is decidedly superior to many recordings made from this source.

The stars of the picture are Deborah Kerr and Yul Brynner, and their performances, as well as the rest of the cast, are just about perfect. The hit songs,

familiar by now, to almost everyone, have not lost their charm and appeal. "Hello Young Lovers," "Getting to Know You," and "Shall We Dance," are among the many memorable tunes that are always worth playing many times.

Fidelity and presence are first rate, but stereo effect is not too well pronounced.—*F. N. West*

POPULAR

CAPITOL FULL DIMENSIONAL STEREO (7 1/2)



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

PORTS OF PARADISE

Side 1: Ports of Paradise, The Enchanted Sea, Blue Tahitian, Farewell, Now is the Hour, Isa Lei

Side 2: Whispering Wind, My Little Grass Shack, Forever More, Madonna of the Flowers, To You Sweetheart, Aloha
Alfred Newman and Ken Darby, with Mavis Rivers and other guests

CAPITOL ZT 1447
4 track, 7 1/2 ips
\$6.98... 38 mins.

This sound saga of the South Seas provides an exotic musical journey to far away places for the armchair traveler. Alfred Newman and Ken Darby have translated their impressions of the islands into vivid reality through words and music.

Instruments and voices are skillfully blended in their interpretation of native music to produce a big, beautiful sound that is more often reminiscent of Hollywood's movie scores than authentic native songs.

A mixed chorus, a full concert-size orchestra and a percussion section using native instruments all combine to create an expansive stereo aural display, with the best in recorded sound.—*F. N. West*

CAPITOL FULL DIMENSIONAL STEREO (5 1/4)



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

HAWAII CALLS

Side 1: Blue Hawaii, Hiiilawe, Hawaiian Wedding Song, Beyond the Reef, The Hukilau Song, Song of the Islands
Side 2: Lovely Hula Hands, Hawaiian War Chant, Kings Serenade, Mama's Muu-Muu, Sweet Leilani, Aloha Oe

Wesley Edwards
CAPITOL ZT 1339
4 track, 7 1/2 ips
\$6.98... 35 mins.

When Hawaii calls, the easiest way to answer, if you can't take the trip, is to play her music. Here is a collection of her greatest hits, done in the best tradition of the islands. Unlike the "Ports of Paradise" tape, this one was recorded in Honolulu by Wesley Edwards, using the

largest chorus of Hawaiian singers ever assembled in the islands. The atmosphere and mood created by these artists give one a feeling of being right there, reveling in the mystic and magic of the haunting melodies.

Excellent recording and stereo effect help make this a fitting tribute to our 50th state.—*F. N. West*



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

DREAM DANCING

Side 1: This Love of Mine, Dream Dancing, I'll Never Smile Again, Out of Nowhere, I Only Have Eyes For You, Embraceable You

Side 2: Street of Dreams, Stars Fell on Alabama, I Don't Know Why, Laura, Moonlight in Vermont, September Song

Ray Anthony . . .
CAPITOL ZT 723
4 track, 7½ ips
\$6.98 . . . 33 mins.

If there ever was an apt title, it's *Dream Dancing*—Ray Anthony really meant it when he titled this tape and he carried out his idea with each number. No raucous, riotous outpouring of sound here, only sweet, slow danceable melodies, the kind from which dreams are made.

Ray Anthony plays solo trumpet through almost every number and this gets to be a bit monotonous after a while. The band has a smooth, sweet sound that is ideal for dreamy love songs. Sound is not evenly balanced however, leaning heavily to the right channel for the melody.—*F. N. West*



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

HOLLYWOOD HITS FOR DANCING

Side 1: You Are My Lucky Star, How About You, Something's Gotta Give, Never on Sunday, St. Louis Blues, Song of the Sad Ranchero, Lullaby of Broadway, Under Paris Skies, Non Dimenticar Cha Cha

Side 2: Let's Face the Music and Dance, Cheek to Cheek, The Second Time Around, An Affair To Remember, Carioca, Love Is A Many Splendored Thing, Laura, Over the Rainbow, The Third Man Theme, Should I, San Francisco

Ernie Heckscher and His Fairmont Orchestra . . .
VERVE VSTC 262
4 track, 7½ ips
\$7.95 . . . 32 mins.

Ernie Heckscher and his orchestra have

made quite a name for themselves on the West coast where for 13 years they have been turning out toe-tapping rhythms at the Fairmount Hotel in San Francisco. In this album Ernie runs the gamut of tune variety as he plays twenty of Hollywood's theme songs from "Lullaby of Broadway" to recent hits such as "Never on Sunday" and "Second Time Around."

It's sparkling music with ingenious arrangements, and an occasional chorus helps add interest to the numbers.

Beautifully recorded with excellent stereo effect, the result is fine for dancing or just listening.—*F. N. West*

CAPSULE REVIEWS

CLASSICAL

RCA VICTOR, FTC 2079, VICTORY AT SEA, Volume III—Orchestra conducted by Robert Russell Bennett, 46 min., \$8.95. Robert Russell Bennett here conducts still more music he has arranged taken from the television score for *Victory at Sea*. The music is not up to the standard of the first volume from the score, but the gimmicked sound effect of guns, planes and other war sounds might be an attraction to some listeners. Sound is bright with typical RCA studio quality.

EPIC, EC 817, BEETHOVEN: Piano Concerto No. 5 in E Flat, Op. 73 "Emperor" Leon Fleisher, pianist; Cleveland Orchestra conducted by George Szell, 38 min., \$7.95. A solid performance of Beethoven's greatest piano concerto, with merit equal to the recent Van Cliburn version on RCA FTC 2081 (\$8.95) and costing a dollar less, although lacking the stereo richness of the latter.

COLUMBIA, MQ 395, VERDI ARIAS sung by Eileen Farrell, soprano, with Max Rudolf conducting the Columbia Symphony Orchestra, 43 min., \$7.95. Arias from *Aida*, *A Masked Ball*, *Otello*, *Simon Boccanegra*, *Il Trovatore* and *La Forza del Destino*. Competent performances recorded with vivid sound, but certainly not Farrell at her best.

LONDON, LOL 90037, *La Voce D'Italia*, Giuseppe Di Stefano, tenor, with Orchestra conducted by Dino Olivieri, 43 min., \$7.95. Here is an attractive program of Italian songs featuring one of today's leading tenors, backed by rather commercial-sounding accompaniments, with mandolins included in the orchestra. Reproduction and processing are fine, and the tape can be highly recommended to those partial to the musical content.

FOLK

VANGUARD, VTC 1603, TRAVELING ON WITH THE WEAVERS, 43 min., \$7.95—Folk song buffs will welcome this tape presenting The Weavers in top form. Sound is superb with crystalline clarity—I cannot imagine a small group like this being better recorded, and the tape processing is perfection.

OPINIONS

of leading music directors on their NORELCO 'Continental' Tape Recorders:

"... faithful, undistorted reproduction of vocal and instrumental timbres . . ." John Brownlee, Director, Manhattan School of Music.

"... ruggedness, versatility and high fidelity . . ." Norman Singer, Director, Aspen Music Festival and Dean of the Aspen School of Music.

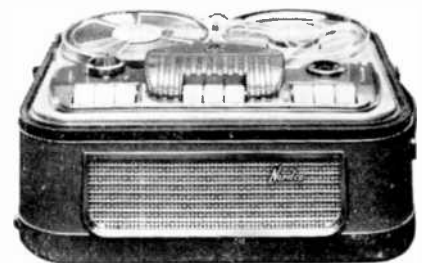
"... reproduces sustained notes without pitch variation . . ." Peter Mennin, Director, Peabody Conservatory of Music.

"... most useful in the evaluation of performance and progress . . ." Dr. Arved Kurtz, Director, New York College of Music. . .

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For more facts, investigate the complete line of NORELCO "Continental" at your dealer's — or write to Dept. P-5 for detailed literature and 'Tape Recorder Buyers' Guide'.

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CROSTALK

from the Editors

CAN TAPE RECORDING be a real, honest-to-goodness hobby? The answer is "Yes" if the experiences of thousands of tape recorder owners can be taken as a guide.

* * * * *

IT CAN BE a hobby of many facets, or it can be a hobby of limited scope depending upon the inclinations of the recorder owner. It can be a casual interest or an all-absorbing one. In many cases it fits in well as an adjunct to another hobby.

* * * * *

ONE OF THE SIMPLER aspects of tape recording as a hobby would be the building of a collection of off-the-air recordings in whatever category holds the most interest. There is plenty of history being broadcast today. There is comedy, now more to be found on TV than on radio, and there is music. There are worthwhile discussion programs on some stations which make valuable reference material. A real baseball fan might tape the broadcast of every game played by his favorite team.

* * * * *

CREATIVE WORK USING a tape recorder can provide a hobby that is not only satisfying but deeply absorbing. This involves heavy use of the imagination, script writing and sound effects production. It may involve trips afield with a portable recorder to get the sounds needed for the sound picture that is being created and it will most certainly involve hours of splicing and editing and polishing to come up with a professional-type presentation.

* * * * *

THEN THERE IS the chap who is a bug on electronics. To him, keeping the tape recorder in tip-top working condition, installing the latest heads, trying new amplifiers, speakers and circuits and similar endeavors are his life's blood. He is satisfied with nothing short of perfection, mechanically and electronically and in attaining it he derives his greatest pleasure from the recorder.

* * * * *

THEN THERE ARE THOSE who find the recorder a valuable ally in self-improvement through the study of foreign languages or other audio work. They use the recorder as a tool to achieve greater knowledge, to learn more about the world around them.

* * * * *

THE RECORDER CAN BE an ear to the world and tapespondence with other recorder owners is an entire hobby in itself, built around the tape recorder. Thousands of people have found great satisfaction and made friends of people all over the world through the medium of the recorder. If you have never indulged in it, give it a try. The tape clubs will welcome you as a member.

* * * * *

WITH THE ADVENT of reliable portable machines a whole new world has been opened. Now the recorder and the camera can go hand in hand on vacations to bring back the sound as well as the sight.

* * * * *

THE MARKETING OF tape-slide synchronizers makes it possible to use the recorder to produce automated slide shows with background music and narration on tape. These can be very effective and great satisfaction can be had from the making up of a good show.

* * * * *

THE TAPE RECORDER can be a hobby all in itself or it can be a very useful part of many other hobbies. All you need is a bit of imagination applied to your own particular interest to see how the recorder can contribute its capabilities toward making life more enjoyable. It's worth a try.

NEW PRODUCTS

CITROEN RECORDER



Citroen Electronics Corp., 832 N. La Brea, Los Angeles 38, Calif., has announced it is ready to market the first of its line of portable tape recorders, the Model 660. The 660 offers an hour and 10 minutes of playing time on a 3" reel using 1 mil tape at 1 7/8 ips. Unit also operates at 3 3/4 ips. In portable use, this machine is powered by a cartridge of six penlight batteries. It can also be plugged into AC current or automobile cigarette lighter with optional adapters. Features include: two speed capstan tape drive, fast rewind, automatic tape erase, push-pull audio output, transformer coupled amplifier, remote control dynamic microphone, record level and battery condition meter, and tape indicator scale. The price of \$149.50 includes leather case, remote control mike, earphone, battery cartridge, roll of tape and take-up reel, and telephone pick-up. Accessories available. Literature is available from the manufacturer.

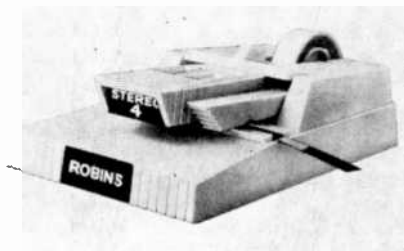
MIRANDA MIRANDETTE



The new Miranda Mirandette is a portable, transistorized, precision tape recorder which offers a choice of two speeds, plus battery or AC operation. It features a built-in synchro disc that readily synchronizes the recorder with 8 mm movie projectors. It can be operated either at 3 3/4 ips or 1 7/8 ips. Compact and lightweight, the Mirandette is powered by four inexpensive flashligh batteries; it has push-button control, simplified tape threading, and fast rewind. A stop-and-go control, built into the handle of the microphone, provides instant starting at the touch of a

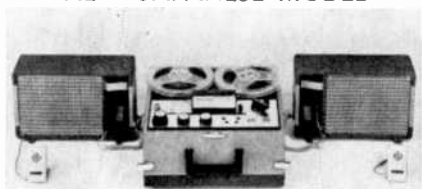
finger. A recording level indicator automatically shows when recording is in the proper sound range, and also indicates when batteries need replacing. Frequency response is 200 to 6,000 cps plus or minus 5 db; signal to noise ratio is more than 40 db; and wow and flutter is less than 0.8% Rms. It is priced at \$159.95. The Miranda Mirandette is imported into the U. S. by Allied Impex Corp., 300 Park Ave. South, New York 10, N. Y.; exclusive U. S. distributor is Interstate Photo Supply Corp.

STEREO TAPE SPLICER



New stereo recordings call for close trimming tolerances to protect their vulnerable outside tracks. To meet these precise requirements, Robins Industries Corp., Flushing, N. Y. has introduced its newest addition to the Gibson Girl line, the Gibson Girl "Stereo 4" tape splicer, Model TS-8D. Its trimming blades are factory pre-set to minimize contact with the "live" surfaces of four track tape. An adjustment mechanism permits the user to keep the blades in perfect alignment. The "Stereo 4" will handle all 1/4" tapes including one and two track recordings. A pair of holding fingers keep the tape accurately positioned throughout the splicing procedure. A two-stage selector knob with "look-thru" windows permits the user to see when blades are locked in precise "cut" and "trim" positions. To make the splicing tape easy to handle, a built-in tape dispenser is included. The cost of the splicer is \$11.50.

NEW JAPANESE MODEL



Fujiya Corp., Ltd., 405 Lexington Avenue, New York 17, N. Y., exclusive U. S. importer of Fujiya Electric Co., Ltd., Tokyo, Japan, has introduced the new Model FSR-75 stereo tape recorder which features 4 track stereo and 4 track monaural record and play, in a compact 44 pound completely self-contained package. Tape speeds are 3 3/4 and 7 1/2 ips; frequency range is 50-16,000 cps at the faster speed; signal to noise ratio is better than 40 db, and wow and flutter is better than 0.2%. Other features include universal 110-220 voltage, VU type recording level meters, linear tape-

position scale, tone control, separate On-Off switch for speakers, separate bass control switch, and input jacks for recording from external source. The price of \$289.50 includes two hi-fidelity dynamic microphones with 5' cords, 2 monitor earphones, 2-6 1/2" wing speakers, 50 cycle capstan adapter, 7" empty reel, and a Command 4 track stereotape. Write to Fujiya Corp., Ltd. for all details.

LAFAYETTE RK-137



Lafayette Radio Electronics Corp., 111 Jericho Turnpike, Syosset, L. I., New York has introduced a compact, 2-speed tape recorder with 4 track stereo playback. This machine, RK-137, features a positive action lever control mechanism for play, fast forward and rewind, as well as a pause button, electronic switching between tracks 1-4 and 3-2, separate record erase heads and VU meter. It has speeds of 3 3/4 and 7 1/2 ips, a signal-to-noise ratio of -42 db, input jacks are provided for microphone and radio/phono connection, and outputs for extension speaker, monitor and 2nd channel stereo playback. It is furnished complete with removable top cover, microphone, shielded patch cords, empty 7" reel and one 7" reel of recording tape. The cost is \$89.50.

GRUNDIG-MAJESTIC RECORDER



Majestic International Sales, Inc., Chicago, Illinois, is marketing the TK-40 four track portable Grundig-Majestic tape recorder. This machine records and plays back in monaural at three speeds. Tape enthusiasts can push a "trick" button on the unit for superimposition of voices over music or similar dual sound effects. In addition to controlling start, stop, superimposition and four track recording functions, push buttons also operate a lockable temporary stop and a tape cleaner. It has a built-in permanent dynamic "Supersonic" speaker. The TK-40 has input jacks for microphone, radio, phonograph, and telephone adaptors. Other features of this new monaural unit include a built-in splicing rule, tape counter, magic band recording level indicator, flywheel drive and tone and monitoring controls. The cost is \$299.95.

TAPE CLUB NEWS

Club Reforms

The late British Tape Recording Society first established by Ted Yates is to be reformed during the coming months by its former founder. This reformed club has no connection with any other organization or magazine whatsoever.

"The Recordist" directory of members will once more be published at the earliest possible date as the society's "house journal." Ex-members of B.T.R.S. and members who had joined The British Recording Club may rejoin this newly forming society quoting their late membership number and forwarding a P.O. for the sum of five shillings toward costs of the house journal and postal expenses. New applicants should forward full details of themselves, recorder speeds and interests, together with a P.O. for ten shillings. A newly printed membership card will be mailed per return to all persons joining, together with official B.T.R.S. receipt.

The Society will once more operate on a national basis, and will be open to the affiliation of local clubs on a member's subscription of ten shillings. Affiliation certificates are still available.

Ex-members and those of former affiliated clubs wishing to take active posts within the Council of the Society should send in their names at once to the secretary.

All applications for membership new or old as well as all correspondence should be addressed to Ted Yates, as listed in our roster.

Interesting Voicospence Club Bulletin

We have been glancing over the February, 1962 issue of the Voicospence Club bulletin—The Voicospender, and we find it to be very informative and interesting. Its theme is "How Dit It All Begin?," and it not only tells of the beginning of the club itself, but also of the beginning of club practices and groups, such as the start of round robins, the formation of the Tarver Memorial Fund, the origin of the Tape Library, and the start of the Service Committee.

Congrats to this club for its fine bulletins and listings.

New Club Listing

Our club roster now carries a listing for World-wide Friends by Tape. This organization was begun as a small round-robin tape group, but in 1961 a program of expanded development was begun. It was decided to not charge a membership fee, and to have only one body without various departments.

The club receives no income, but will still publish one Member Directory and one club magazine a year. A number of appointments have been made. These people have consented to assist the club manager, George A. Benton, 3rd, when called upon to do so.

This organization is operated to assist members within the scope of its function. Members are invited to contact the manager with questions, suggestions or criticisms.

At present this club has 64 members

from the U.S. and some foreign countries. It is growing fast and we wish it continued success.

Tape Network Club

Still another club has now been added to our roster—Universal Tape Network. We have found that our listing is growing larger with each issue, and we are happy to see the hobby of taping increasing.

Although we just learned of it, the Universal Tape Network club is already three years old and has 350 members. Club fees are \$2.00 per membership. All details may be obtained from the club president, Larry Duhamel, Universal Tape Network Headquarters, R.F.D. #1, Main St., East Douglas, Mass.

Health Tape Club

We have received a notification from Jerry Lipman of San Francisco that he is organizing a new tape club dedicated in purpose to spreading cheer and friendship to shut-ins as well as exchanges in ideas in obtaining and maintaining good health. The club is to be called The Health Friends Tape Club and the mailing address is P.O. Box 223, Daly City, Calif. Registration is free and any that wish details may write for a questionnaire to be filled out.

International Tape Fellowship

Jack Talling, of Britain, has formed his own tape club, known as International Tape Fellowship. The club is still in its infancy. Its aim is to create an international brotherhood of tape enthusiasts. New members are asked to contribute a fee of three shillings to cover running costs of the club.

We were informed of this organization by Terry Nurse, 161, Stuarts Road, Birmingham 33, England, and assume that anyone wishing details may obtain them from her. We have found that the British people are great recording enthusiasts and they have many groups and clubs organized to pursue their hobby.

New WTP Roster

The March '62 listing of World Tape Pals gave club members a list of 578 members, including complete membership lists of England, Ireland, Scotland, and Israel.

New members were listed from Australia, Belgium, Bolivia, Trinidad, Canada, Denmark, Germany, Iran, Malaya, Samoa, Holland, Hong Kong, Northern Rhodesia, Spain, Syria, and New Zealand, in addition to members in 40 states of the U.S.

The loose-leaf roster was adopted by WTP about three years ago, and has proved a flexible method of keeping up with new members and relisting complete memberships of various countries on a rotating plan.

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 Bocage 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. Ciarrocchi, Secretary
26 South Mount Vernon Avenue
Uniontown, Pennsylvania

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

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

MAGNETO-VOX CLUB
J. M. Roussel, Secretary
7915 Des Eraldes
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 VOICOSPENCE 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.
John F. Wallan, Hon. Secretary
Box 970. H., G.P.O. Adelaide, South Australia

ENGLISH SPEAKING TAPE RESPONDENTS'
ASSOCIATION
Robert Ellis, Secretary and Treasurer
Schoolhouse, Whitson 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.

TAPE IN EDUCATION

Robert C. Snyder

As has been mentioned in this magazine from time to time, the British tape recordists seem to be ahead of those in the United States in the matter of using the tape recorder as a creative instrument.

While our British cousins have a number of lively face-to-face tape clubs, we have few. While they go in for producing their own dramatic and educational efforts on tape, we are content to record from the radio or TV and let it go at that.

This lack of interest in the creative use of the tape recorder is not limited to the home front, however, since the schools likewise do not seem to be getting from it all that they should.

The tape recorder should be thought of as an educational tool. Many times the value of its use lies not so much in the tape which is produced but in the experiences of the pupils who made the tape.

For instance, one British school class in the lower grades set about to make a sound picture of "Our Town." This involved interviews with such people as the vicar, the local police chief, some of the tradesmen and artisans, etc.

In the process a lot of tape was made which could not be used and, like any audio show, had to be edited out.

But the pupils learned a lot. They learned how to ask intelligent questions, they learned that strange adults were quite happy to talk with them, and, in interviewing people about their jobs they learned quite a bit about the work-a-day world and how the various people in their town earned a living.

Even, if by some mischance, the mike had not been working and not a single word had been recorded, the value of the experience was still there. The tape recorder was the tool and the base which held the whole together.

In another British school, of the higher grades, the tape recording club makes up a weekly newsreel. Students tape various school happenings, conduct interviews with the teachers and record gossip about their classmates. The tapes recorded during the week are edited by a student committee.

Here again the experience of interviewing and the experience of making decisions in committee as to what shall or shall not appear on the finished tape is of educational value. Again, the tape recorder simply served as a vehicle for an educational experience.

In this instance, the tape is reviewed by the headmaster before it is broadcast over the school's P.A. system to all the classrooms.

There are thousands of American schools which could promote similar activities but have failed to do so.

Many teachers are afraid of tape recorders, believing them to be too complicated, too difficult to set up, etc. If a teacher does not want to use one a thousand excuses can be found.

But such is not the case with the pupils. They love recorders and this native

love of machinery and things scientific can be put to good use through the formation of tape recording clubs in the schools. Such clubs can be of distinct value to both the school and its members.

Learning the ins and outs of sound recording and tape recording operation in their club meetings, they are well prepared to set up and operate the machines in the classrooms, leaving the teacher free for other things.

They can also be instrumental in arranging tape correspondence between the school and others both in the United States and abroad.

The idea of an operators club has been used somewhat in the field of slide projector and movie projector operation and it could well be extended to cover the tape recorder as well.

But actually, there is enough material inherent in the use of the tape recorder to sustain interest as a separate club. The recording of assembly programs of note, the production of a school yearbook in sound to supplement the usual picture book, the exchange of tapes with other similar clubs in other schools, the recording of material for the teachers in the school for use in the classes, etc. The list is almost endless.

It might be well, also, for the manufacturers of tape recorders to do a little survey work and find out what is most needed in a machine designed for school use.

For one thing, a school recorder should be much more rugged than a machine designed for home use. A sturdy case and easily worked controls would seem to be very important points for consideration.

A teacher cares very little about the specifications of the machine or its inner workings. All she wants to be sure of is that when she loads it with a reel of tape and presses the button it will work. Nothing can be so embarrassing to a teacher, or so mirth-provoking to the pupils, as a mechanical failure, especially if the teacher is not aware how such failure can be speedily remedied.

Today's generation, accustomed to TV tuning, including color, jet planes, satellites and the myriad household gadgets simply cannot understand any lack of ability of a member of the older generation to handle these things.

Today's teen-agers can tear an automobile down to its component nuts and bolts, refinish it and put it back together again with the greatest care and precision. Needless to say, a teacher who cannot do such a simple thing as operate a tape recorder is not held in very high esteem by the mechanically minded youth.

Instead of allowing this to happen, the mechanically minded youth should be called upon to display his talents and put to work running the recorder. Thus, if for some reason it should fail to work, the class would be sure there must be a good reason for such failure. . . . not simply a lack of knowledge of things mechanical.



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by Harold D. Weiler

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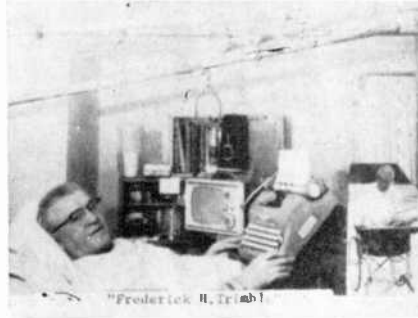
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Severna Park, Md.

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

Tape Recorder Cheers Shut-In



To the Editor:

It is now proven, at least to me, that to get any satisfaction from tape recording, be ye novice, bug, nut or professional in this field, your monthly issues of TAPE RECORDING are a must, almost a Bible in need to have at hand to keep up with events in this tape recording world. I note your new "Tapespondents Wanted" how much enlarged it was in the March issue from its starting issue—I am testing one out to see what response will come.

I shall state here I am much different than the normal, therefore tape recording has to blend into that difference with me.

The difference from the normal is that I am a patient confined to a hospital bed 99% of the time in a nursing home—and it has been my lot to be so confined in hospitals and nursing homes of this state since June of 1953.

This electric typewriter has been a developed outlet since 1958. It, itself, has brought about a new education as I have worked out the use of this typewriter while I lay flat on my back in bed and also an education to the many, many thousands who find themselves so confined in their different handicaps in sickness and disablements with life remaining for the most part just a bleakness.

With nerve life left in only the upper third of my body, having still use of my arms, fingers with no impairment, a clear mind to give expression from, with that I was to discover an aged patient in this nursing home owned a rather old Sears tape recorder (April 61). I asked him to play some of his tapes and he made me record my voice—this after 64 years of being mike shy. From the moment I heard my own voice I became a bug to the point where I wanted a recorder of my own where I could have control of its operation. The first one I got in May last year and it was a Webcor Regent Remote Control recorder. I now have a second one so I can make copy tapes and this one is a new Webcor Compact DeLuxe. I am finding its operation blends in very well with my purpose. I received this in February 1962.

Now somebody start laughing—you may if you want to—because I am—outloud al-

most. You may laugh more when you find one who is only able to keep each month for his personal needs the large sum of \$6.89 out of the monthly \$85.00 granted by social security because he is a sick and disabled person. There are no rehabilitation funds here nor is there charity—yet all is paid for by a benefactor who shall remain nameless.

Your TAPE RECORDING Magazine has helped in contacting sources who have made it possible for me to go into tape recording in an expanded way. Yes, there is a story to be told over this—if not as an example to others, then as food for thought.—Frederick H. Trimble, 2315 Williams Street, Bel-
lingham, Washington.

Ten Headphones At Once

To the Editor:

What is the best way to use as many as ten headphones with a Webcor Royalite tape recorder?

It is desired to be able to use any number of earphones at one time, the remaining ones not being connected to the recorder. Is this a simple or a difficult problem?

Of course the phones would be in parallel and changing the number of phones would, of course, cause some mismatching. Economy is a point to consider and could you please advise as to the cost. Does the problem require an addition or reconnecting inside the recorder?—F. E. G., Smethport, Pa.

A simple and inexpensive means of solving your problem is to make up a jack box which is simply one of the Miniboxes obtainable at any radio supply store or electronics house into which you mount a number of jacks. As you mention, they should be connected in parallel. A single lead is run to the tape recorder and plugged into the external speaker jack.

The whole outfit should not cost over a few dollars and if you don't have the facilities, you can purchase ready-made jack boxes from such firms as Switchcraft, 1328 N. Halstead Street, Chicago 22, Ill.

Wants To Tape AM Broadcasts

To the Editor:

Can you inform me if it is possible to make a tape recording directly from a tuner only, that is a tuner with no amplifier, speaker, etc? What I have in mind is to tape AM broadcasts and I don't know if I have to purchase an amplifier, speaker, etc., or if a tuner is all that is basically needed.—R. K., Jr., Poughkeepsie, N. Y.

It should be possible for you to record directly from a tuner by plugging it into the low level (mike) jack of the recorder. By using the monitor button on the recorder (if it has one) you will also be able to hear what is being recorded or to use the tape recorder itself as an amplifier speaker when simply listening.

INDUSTRY NEWS

AUDIO DEVICES chalked up record gains, according to its annual report just released. Now in its 25th year, the firm had a net income increase of 117% for 1961 over the year before. Sales of discs and tapes were up 12% over the prior year. The increase was attributed to the growing market and a reduction in manufacturing and operating costs during the year.

The NATIONAL ASSOCIATION OF BROADCASTERS convention and show in Chicago was heavily dominated by tape equipment. Complete automation of broadcast stations is possible with machines doing the switching from tape to tape to insert station breaks, commercials and time checks in appropriate spots in the programs. Several firms offered complete programming services and also the tape equipment on which to air it. Both reel to reel and cartridge machines were in evidence with the cartridges being favored for such use as spot announcements.

WEBCOR is well pleased with the results of its "Music Man" contest in which \$162,000 in prizes are being offered to young musicians. The contest is being co-sponsored by the Richards Music Company, makers of band instruments. According to Webcor Vice President James J. McLaughlin, the response to the contest, the largest ever held for American youngsters, has been tremendous. The students tape a 3-minute musical rendition on any instrument of their choice at their nearest Webcor or Richards dealer. The tapes will be judged locally, regionally and nationally. It was expected that 1500 dealers would participate but instead 2000 have cooperated. One Philadelphia dealer taped more than 300 entries the first three days of the contest.

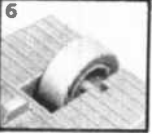
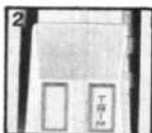
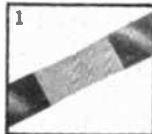
Webcor dealerships have increased as have sales of Webcor recorders as a result of the competition, the boost amounting to 136% over the same period of last year.

IRVING ROSSMAN, former Pentron president, has formed a new firm called Ionic Industries which will be located at 1618 Orrington Ave., Evanston, Ill. The company will introduce several electronic products in May.

CITROEN ELECTRONICS CORP., at 832 N. LaBrea Ave., Los Angeles, has named E. J. Freeman as new president. Mr. Freeman resigned as general manager and vice president of Roberts Electronics to take the post although he will remain as a sales consultant to Roberts for a year. Citroen Electronics will market a portable recorder at \$149.50.

ROBERTS ELECTRONICS has appointed Gordon W. Mallatratt and Lewis S. Glaser to the board of directors, according to Robert G. Metzner, president and founder of the firm. Mr. Malatratt is also a group vice president and director of Rheem Manufacturing Co. and Mr. Glaser is president of Revell, Inc.

next to your
tape recorder
the most
important
thing you
can own



NEW GIBSON GIRL® STEREO 4 TAPE SPLICER

Splicing 4-track tape is a critical operation. And, the new GIBSON GIRL Stereo 4 is well-equipped to assure safe, clean splice everytime—with every type of tape 4-, 2- or 1-track. The precise alignment of its surgically keen blades is always maintained by a special adjustment control. An ingenious "window" tells you when the blades are in precise "cut" and "trim" positions.

The Stereo 4 contributes to better performance too. For a new stream-lined GIBSON GIRL® shaped splice protects program material on the tape and leaves the edges of the tape entirely free of adhesive. Splices glide past your tape head with never a hint of their presence. List price of the Stereo 4 Deluxe is \$11.50.

STEREO 4 FEATURES THAT MEAN FAST, SURE SPLICES

1. New stream-lined GIBSON GIRL shaped splice leaves tape edges, which contact critical recorder parts, entirely free of adhesive.
2. Two-stage selector knob with 'look-thru' window permits you to see when blades are locked in precise 'cut' and 'trim' positions.
3. Precise pre-set alignment of surgically keen blades easily maintained by special adjustment control.
4. Safety lock for protection must be removed before the Stereo 4 can be operated.
5. 'Grip-Tite' holding fingers keep tape perfectly positioned throughout the splicing operation.
6. Built-in splicing tape dispenser brings splicing tape into position easily.

See the new GIBSON GIRL Stereo 4 Deluxe at your tape recorder dealer today.

ROBINS INDUSTRIES CORP. • FLUSHING 56, N. Y.
Export: Telesco Int'l, New York 16, N. Y. Canada: E. S. Gould Sales, Montreal 1, Quebec,

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 tapesspond 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.

Russ Bothie, 4119 N. Pittsburgh Ave., Chicago 34, Illinois; Recorder: Ampex 970, 2 or 4 track and/or Webcor 2150, 2 or 4 track, both 7 1/2 or 3 3/4 ips; Interests: Wanted—Ballet, musical comedy, or long hair tapes. Comment on audio problems; Adult, professional musician and audio engineer.

R. L. Hawks, 814 N. Main St., Wichita 3, Kansas; Recorder: Bell, 3 3/4 or 7 1/2 ips, 2 or 4 track; Interests: Poetry and organ music such as Moon River, Ted Malone, Carl Zomar, etc. My collection available, no charge.

Gus DeRidder, 34 Winton Lane, Dolgeville, New York; Recorder: Magnecord 728, 7 1/2 ips, monaural, dual track; Interests: Pre-war big swing band broadcasts & air checks; Adult.

Craig Umberham, 18706 East Chapman Avenue, El Modeno, California; Recorder: Wollensak, 7 1/2 or 3 3/4 ips, dual track; Interests: learning about electronics, records and recording. Wishes to correspond with someone about 17, 18, or up, boy or girl. Loves music—all kinds; Teenager (18).

Robert Simonton, c/o Nat'l. Theatres & Television, 9570 Wilshire Blvd., Beverly Hills, Calif.; Recorder: Radio, stereo, 7 1/2 or 3 3/4 ips, 2 & 4 track; Interests: Motion pictures, photography, most popular and classical music, want tape respondents male or female anywhere, any age; Adult (28).

Howard H. Rice, 143 Bernard Drive, Buffalo Grove, Illinois; Recorder: Viking 85 deck and RP-62 record/playback preamp, 7 1/2 and 3 3/4 ips, monaural, half track; Interests: Want to swap tape dubs of classical recordings withdrawn from Schwann LP catalog, classical music from FM delayed "live concert" broadcasts not available on LP records. Monaural only. Prefer 7 1/2 speed; Adult.

R. W. Harmon, 6502 Buena Vista Dr., Vancouver, Washington; Recorder: Norelco "400," 1 1/8, 3 3/4, 7 1/2 ips, 4 track; Interests: Jazz and/or percussion, humorous dialogue; Adult.

W. Don Curtis, Route 2, Box 280, Denham Springs, Louisiana; Recorders: Roberts 990, 3 3/4 & 7 1/2 ips, quarter track, will also record monaurally, and Sony 262-D tape deck, 7 1/2 & 3 3/4 ips; Interests: Drama, theater, stereo, U. N. Stamps, Photography, travel; Adult (32), single.

Ed Miles, 2738 Maxwell St., Phila 36, Pa.; Recorder: Telectro, 1 1/8, 3 3/4, 7 1/2 ips, four track, plays stereo; Interests: Coin collecting, Dixieland jazz, ham radio; Adult (31).

Ray Galloway, your musical host, with recording studios located at 714 Stadium Place, on the "Banks of the Beautiful Wabash" in Logansport, Indiana; Recorders: Norelco, 1 1/8, 3 3/4, 7 1/2 ips, Crown Broadcaster, 3 3/4, 7 1/2, 15 ips, dual track, monaural; Interests: Wants music of the swing era, sounds of the great bands recreated in hi-fi, and those who have a collection of Eddy Howard recordings. Desperately need copy of "A Million Dreams Ago," by Eddy Howard. Also would like to contact someone in Palm Springs, Calif. and Honolulu; Adult.

Lawrie C. Perera, Apt. 10, 470, Albert Street, Ottawa 4, Ontario, Canada; Recorder: Grundig TK8, dual track, 3 3/4 and 7 1/2 ips; Interest: Jazz, small group; Adult.

Malcolm H. Bender, 1234 Donna Dr., Richardson, Texas; Recorder: Sony Sterecorder, access to others, can cover any standard speed, 2 or 4 track; Interests: Symphonic and March music, semi-classical, high fidelity; Adult.

Earl Linder, acting secretary, Christian Bible Classes, Inc., 2521 N. W. 23 St., Miami, Fla.; Recorders: Norelco, Wollensaks, & Webcor, 1 1/8, 3 3/4 and 7 1/2 ips; Interests: harmonizing, true scripture, true science, true history, tapes exchanged.

Lorraine Sele, 4325 W. 104th Street, Inglewood 2, Calif.; Recorders: Viking 75 deck, Heathkit Electronics, 3 3/4 and 7 1/2 ips, dual track; Interest: want tapes of LP's by Edith Piaf (current and catalog deletions); Adult.

Sam Gish, 2411 Jefferson Street, Wilmington 2, Delaware; Recorder: Pentron Astra-Sonic II, monaural record and playback, 3 3/4 and 7 1/2 ips, dual track; Interests: Photography, stamp collecting, model building and music; Teenager (14).

Paul Nagle, 815 Terrace Ave., Dayton, Kentucky; Recorder: Norelco Continental "400," 1 1/8, 3 3/4 & 7 1/2 ips, 4 track; Interests: Exchanging stereo music of big bands. I am also interested in 8mm movies and travel; Adult (31), single.

Wilfrid C. Kennell, 2723 East Shields Avenue, Fresno 3, Calif.; Recorder not listed; Interest: Wants copy of Camera Three broadcast for 2/18/62. Can anyone help?

Jim Moulder, 3102 Seewers, Dallas, Texas; Recorder: Ampex 960, 2 track stereo, 3 3/4 and 7 1/2 ips; Interests: Old radio programs (comedy, drama, mystery, musicals); Adult.

Duane Davidson, RR-12 Box 172, Lafayette, Indiana; Recorder: RCA cartridge, 4 track, 3 3/4 ips; Interests: Promoting correspondence via the cartridge type tape. Educating the public to the superiority of magnetic tape as a means of music playback; Adult.

Phillip P. Towell, 107 Spilsby Road, Boston, Lincolnshire, England; Recorder: Sony 300 Sterecorder, 7 1/2 or 3 3/4 ips, dual or quarter track; Interest: Locating recordings. all music (except jazz), stereo especially; Adult (31), bachelor.

Tony Leslie (wife: Jean), 23 Mount Street, Levenshulme, Manchester 19, England; Recorder: "Countess", 3 3/4 or 7 1/2 ips, dual track, up to 7" reels; Interests: Modern Jazz (Herman, Basie, etc.), general topics; Adult, occupation "Minicab" driver.

Jacob J. Hess, 1130 Hillcrest Drive, Freeport Illinois; Recorder: Sony 300 Sterecorder, 3 3/4 & 7 1/2 ips, monaural, 2 or 4 track, others available; Interests: Stereo hi-fi, round and square dance music, background, Hawaiian, South American, etc.

Ray Stewart, Jr., P. O. Box 177, Winston-Salem 1, N. C.; Recorder: V-M Model 710A, 3 3/4 and 7 1/2 ips, dual track; Interests: Ham radio, audio, hi-fi, psychology; Adult.

Laurence Aragon, P. O. Box 40, Casa Blanca, New Mexico. No recorder given. Interest: I wish to have tape pals with whom I can voice-pond. My hobby is collecting phonograph records of various kinds. I am also a sports fan. I like baseball, basketball, football, boxing and wrestling. I did some wrestling during my high school years and am still active at this time. If there are Indians of any tribe, I wish to hear from them, but in English speaking, please. Perhaps I can exchange songs and chants with someone, as I am an Indian song composer too. My tribe is Laguna Pueblo.

Charles W. Ingersoll, 1420 Ave. "C", Cloquet, Minn.; Recorder: Wollensak, 3 3/4 & 7 1/2 ips, dual track; Interest: Wants to be tapesspondent with resident of San Francisco, Calif.—also organ enthusiasts; Adult.

Wayne Johnson, 306 Livermore Terrace, Los Angeles 42, Calif.; Recorder: Knight (KN-4075), 1 1/8, 3 3/4 and 7 1/2 ips, 4 track, stereo; Interests: Swing era bands, light classical, collector's items—all kinds. Interested in exchanging tapes, idcas and general tapesspondence. Adult (32), single.

E. Walcott, 22140 Cohasset St., Canoga Park, Calif.; Recorder: Sony, 3 3/4 & 7 1/2 ips, 4 track; Interests: Piano Music, just about all subjects.

Michael Bett, 81 Northfield Road, Peterborough, Northants, England; Recorder: Phillips, 2 or 4 track, 3 3/4 & 7 1/2 ips; Interests: Swing Bands 1936-1942, Dixieland, Show & Film music, all tapes promptly answered.

Kenneth Kaplan, 67-38 108th St., Forest Hills 75, N. Y.; Recorder: Wollensak 1515-4, 3 3/4 or 7 1/2 ips, 2 or 4 track; Interests: Broadway Shows, pop and semi-classical music, Martin Denny arrangements, Bob Newhart humor, all interesting people, I welcome and will answer all English language tapes; single adult (29).

Leslie L. Smith, 411 E. Mason St., Owosso, Michigan; Recorder: Webcor, 3 3/4 and 7 1/2 ips, dual track, monaural; Interest: Would like complete John Glenn press conference which was broadcast on 2-23-62, advise amount of tape needed, will pay all postage.

Tom Castellucci, 734 E. Waugh St., Alliance, Ohio; Recorder: Ampex 960, 3 3/4 and 7 1/2 ips, 2 track. Interests: Secretary for Sound Dimension Club of 15 members whose interests are exchange of stereo tapes, jazz, organ music, popular and motivation recordings; Adult group (25 to 35).

Bill Vautrain, 2666 So. Marion St., Denver 10, Colo.; Recorder: Telectro MDL, 1975, 3 3/4 and 7 1/2 ips, 2 track, monaural; Interests: Sports cars (foreign), guns, poetry, short stories, exchange info on making better tapes at all speeds.

Walter Gass, 801 9th St., Ames, Iowa; Recorder: Norelco 300, 1 1/8, 3 3/4 & 7 1/2 ips, quarter track; Interests: Photography, tape pals around the world, language exchange; Adult.

Robert Ettinger, 3821 18th Avenue, Brooklyn 18, N. Y.; Recorder: Wollensak 1500, 3 3/4 & 7 1/2 ips, dual track; Interests: Jazz bands of 1940's and 1940's and Dixieland music; Adult.

Roger Feingold, 2055 Cruger Ave., Bronx 62, N. Y.; Recorders: V-M 722, 3 3/4 and 7 1/2 ips, 4 track stereo record, V-M 714, 3 3/4 and 7 1/2 ips, 2 track stereo playback; Interests: Art of conversation, meeting of the opposite sex, provisions for copying music, almost all topics; Teenager (17).

Cedric H. O'Neil, 211 Santa Ana Avenue, Long Beach 3, Calif.; Recorder: Magnavox Concert Grand, 3 3/4 & 7 1/2 ips, dual track; Interests: Music, all types. Piano player and pianist, writing (professional writer & musician), travel and general discussion; Adult.

Sheldon Redder, 2157 Wallace Ave., Bronx 62, N. Y.; Recorder: Columbia, 2 track, 3 3/4 & 7 1/2 ips; Interests: Amateur radio, rock & roll, show tunes, meeting opposite sex, sound effects, provision for the copying of tapes; Teenager (16).

Joseph S. Szaryas, 315 Main St., Freemansburg, Penna.; Recorder: Crestwood 400 Series, 3 3/4 & 7 1/2 ips; Interests: Hungarian music, also Cimbalon (Dulcimer) music, would like to tapesspond with other Hungarians.

Greg Gordon, 5920 Colbath Ave., Van Nuys, Calif.; Recorder: Wollensak T-1515, 3 3/4 and 7 1/2 ips, dual track, stereo and mono playback, mono record; Interests: Most all types of music, especially swing and vocal groups, humor and satire, radio plays, science fiction, sound effects, never tapessponded before, but anxious to start; Teenager (17).

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

"WHY MY RECORDER IS IMPORTANT TO ME" CONTEST

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

Gentlemen:

I'm a family man working two hundred and forty miles away from home. The weekends at home are nice but too long in between, so each week, I make tapes of the conversation at home, and keep these on file for those moments when I want to hear the patter of the feet of the folks, both old and young, at home. Each week I made a tape of running commentary of things I see and do and want to let the family share with me. Another important phase of my recorder's importance is my voicepence with friends in twenty states and two foreign countries. It's entertaining, educational, and effervescent—lifts me up from moments of moody disposition.

Yep, I like tape recording.—*L. S. Cobb, Bainbridge, Ga.*

Gentlemen:

My tape recorder is important to me because it enables my wife and me to grow along with the progress of our seven grandchildren, although they are 900 miles away, in Brookfield, Wisconsin. If I never derived any pleasure from the beautiful music I have taped, I feel that the instrument has more than paid for itself on this count alone.

When my son and his family moved west, my wife constantly regretted that the grandchildren were growing up with very little contact with us, except for very occasional visits. Then John, Jr. purchased a tape recorder, and grandfather followed suit. For the past two years, instead of writing letters, we regularly exchange 5" tapes. What a difference! We can now keep in touch with their progress and development in a much warmer way than through the written word.

Everyone gets into the act: the children recite, tell about their various treats and activities: they are gathered together periodically for "sing-a-longs" and we get a terrific amount of pleasure in playing the tapes over again and picking out the various voices. I can recommend nothing finer for families who are separated as we are.—*Jack O'Brien, Philadelphia, Pa.*

Dear Sirs,

My tape recorders are important to me in many ways. First of all being an actor I find them most useful in studying scripts and learning lines. I record my part plus cues and play it back as many times as needed.

Also I use it for the purpose of learning dialects. I also, like Dr. A. Tomatis, (Tape In Education, December) have found that different languages use different frequency ranges and this has been most effective, for when I came to New York some fourteen years ago I was only able to act two dialects and this condition had existed for some 40

years. With the aid of my tape recorders I now have seven dialects under control.

Secondly I am a DX hobbyist and like to tape programs off the air from distant countries and send these recordings to the station. They are very glad to receive them as it gives them an exact reception (test) report. They, in return, send me recordings of music from their countries.

Needless to say it is a must for me in letter writing.—*Pat Malone, New York, N. Y.*

Dear Editor,

I am a puppeteer who finds it necessary to work by myself. Before I had my tape recorder I gave Birthday party variety marionette shows which were not very good primarily because the record had to be changed for each act. Since I now have two small children I decided it would be fun to entertain them with hand puppets. Well, I found handling all the puppets and props and curtains myself and trying to remember lines and put on some music was too much for me.

However, now that I have my tape recorder it has worked wonders. My marionette show has turned into a smooth running operation and my hand puppet show has developed into a first class show. In fact due to the progress I have made with my puppets since having my tape recorder, I was given a chance to give shows every month at our local little theatre. So, I not only have fun with my tape recorder but because of it what was once strictly a hobby has turned into a part time business.—*Mrs. Patricia Whitehill, El Sobrante, Calif.*

Gentlemen:

Why my recorder is important to me . . .

Because it has helped me to broaden the scope of my hobby of collecting circus material. Now in addition to having photographs, posters, advertising material, programs, etc. of the country's leading circuses, I can have the actual sounds of this wonderful never-never-land of the circus!

The blare of the circus band, the strident scream of the steam calliope, the roar of the lions in the menagerie, the shouts of the side show barkers, the announcements of the ring master, the chant of the black gang pounding stakes, all these sounds and many more are mine to enjoy and share with my friends, not just on one or two days in a year when the circus is in town, but every day, if I wish, thanks to my trusty recorder.

In addition to all this, whenever my friends from the circus world visit me in my home, I record a personal interview with them, thus retaining for myself and future circus fans, the voices and personalities of the circus greats of today.—*Bill Green, Beatrice, Nebr.*

TAPE RECORDING IN EUROPE

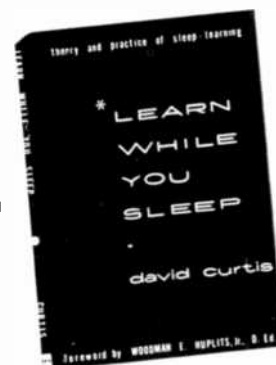
Some of the most interesting developments in tape recording are taking place in old-established factories and laboratories in Europe. The fullest information about them appears regularly in TAPE Recording Magazine, published in London, England, since February 1957.

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

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

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

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RECORDING MAGAZINE
7 Tudor St., London, EC4, England



SEND FOR THIS AMAZING BOOK TODAY

Now

After you have read "LEARN WHILE YOU SLEEP" and yet do not agree with the thousands who have read this book before you, return it for a full refund. Originally published at \$3.00 cloth-bound, we are making the paperback edition available for only **\$1.00**

USE YOUR OWN TAPE RECORDER

"... In ten interesting chapters, LEARN WHILE YOU SLEEP, by David Curtis, covers succinctly the theory and practice of the process of sleep-learning." *Science and Mechanics*

"... Just the thing for . . . cramming for exams . . ." *Dayton Daily News*

"... Thorough and fascinating . . . abundant data to show that this (sleep learning) works so more swiftly than the usual conscious techniques." *Dr. George Woodbury, Manchester Sunday News.*

"... Speeds up learning process considerably." *N.Y. Post*

"... Amazing examples of learning and memorizing . . ." *Burlington Free Press*

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207 East 37th St., New York 16, N. Y.

Send me copy of David Curtis' Book, LEARN WHILE YOU SLEEP @ \$1.00. I understand I may return for full refund if I am dissatisfied.

NAME
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EDITING "CLOCK"

by Tommy Thomas

... this special timer speeds up editing.

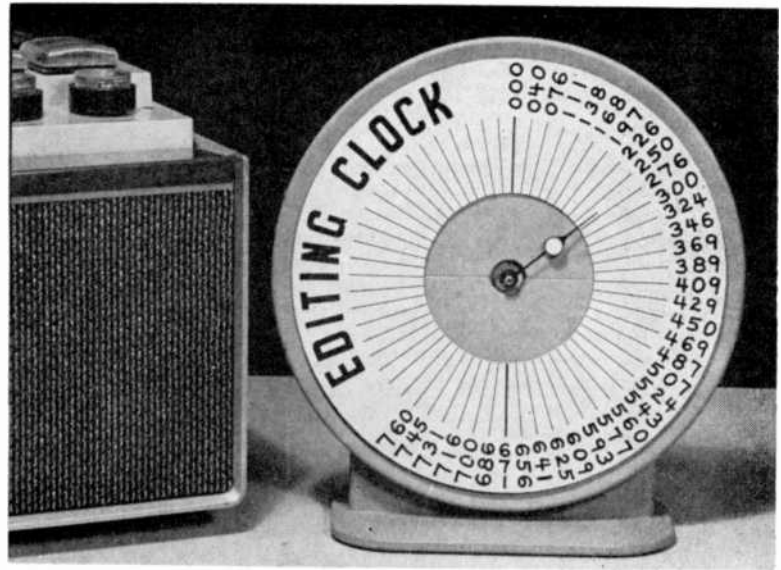


Fig. 1: Although this clock ticks off in minutes, it READS in digital "footage" numbers corresponding to the recorder counter it has been matched with . . . to provide you with a remote counter system that can be read from across the room or in another room completely.

As any ardent recordist well knows, one of the greatest thrills of recording *lies in editing*. It's a constantly exciting challenge to extract only those recorded gems really worth preserving and "plow back" the rest. But unfortunately locating and isolating these gems is not only a challenge, it's also time-consuming work . . . endlessly so. Therefore, for those of you who do a great deal of editing (and I hope that includes most of you) here's a terrific time-saving, chore-reducing recording aid practically guaranteed to reduce your editing time by countless hours.

Most recorders have an Index Counter System that arbitrarily "measures" the amount of tape that goes by the tape heads. By using this counter you are able to note where any certain recorded selection is on any track on any tape, so that in the future you can locate this same spot in a hurry. Now actually, though these index numbers are merely arbitrary, when applied to a certain thickness tape run at a certain speed *they definitely do represent a certain amount of TIME in minutes and seconds*. Using 1½-mil tape on my Knight recorder, for instance, traveling at a speed of 7½-ips and wound on a pair of 7" Audiotape reels, the index counter

number of "409" always represents 15 minutes (plus or minus a few seconds). So, by reversing this way of figuring you can alter an ordinary clock so it'll read index numbers directly instead of minutes of time. This lends itself to all sorts of marvelous possibilities when you're recording. For the first time, instead of being constantly "chained" to your recorder while doing preliminary editing, so you can make the necessary index readings whenever something re-recordable comes up, now you can wander about *anywhere within listening distance* and still take fairly accurate readings.

THE ED SULLIVAN HOUR:

I often record television variety shows such as Ed Sullivan's in the hopes of capturing a savable gem here and there . . . perhaps a song or a novel comedy routine. My recorder taps into the volume control of the TV via a short length of shielded cable so I have to set the recorder right next to the TV when taping. Naturally, to watch the screen, I'm over on the other side of the room where I can't possibly watch the tiny index counter unless I jump up and walk back over to the recorder. And this gets to be such a nuisance that more often than not I don't bother . . . and pay for it later by losing quite a bit of time racing the tape back and forth, haphazardly searching for something I decided warranted saving. Now, with my trusty Editing Clock to aid me, I handle the same situation quite differently. Once set up (I start the recorder and set the clock to "zero" at the same time) I put the clock facing me on a nearby table. The moment anything even slightly interesting shows up on the TV screen I just glance over at the clock dial for an instant reading (which I note on a scratch pad beside me). If the bit turns out to have possibilities I make another note of the ending figure. This way I not only enjoy the TV program more, but I don't slip up on making the kind of index readings and notes that will save me so much editing time later on.

RE-RECORDING WITH TWO RECORDERS:

With four-track tape the only practical means of accumulating selected bits of recordings is by re-recording. My own system is to do all of my recording with one recorder, using



Fig. 2: This particular DC-electric wall clock is perfect for converting over to a special clock for editing your tapes from afar. Its diameter is an ample 9½", giving you plenty of room for writing in large legible numbers. And being battery operated, you never need to worry about cords to plug in or a clock that needs winding.

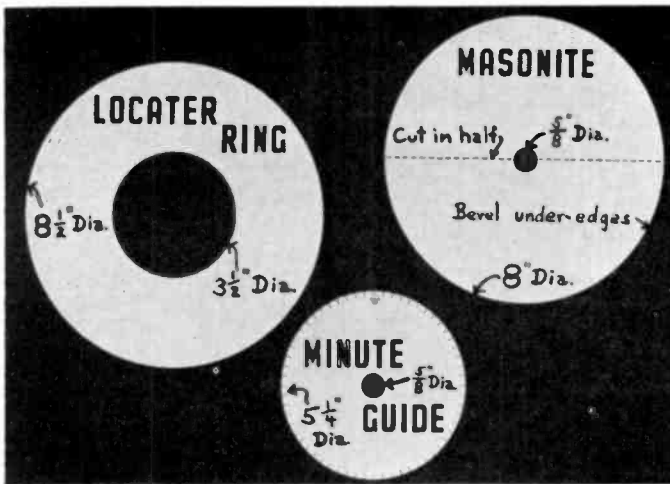


Fig. 3: Before beginning actual construction, make up these three paper patterns. Compass-draw the circles exactly as shown here with the possible exception of the Locater Ring's outside diameter. The 8 1/2" diameter indicated here makes for a more easily exchangeable dial, but increasing to 8 3/4" gives you a bit more room.

a second recorder just for playback. (For this reason, if you don't already have a second recorder you can use for this purpose, I suggest getting a "Play Deck" that has an Index Counter and the minimum electronics necessary for re-recording.) BUT HERE'S THE RUB! If you record with one machine and then play the tape on another, *your index readings won't match*. So, by using this Editing Clock system where the calibration is for the playback machine only, no matter *what* machine does the original recording, the entire problem is solved quite neatly.

DOING TWO THINGS AT ONCE:

Often I record TV programs when I'm away from home or I record family doings or party fun sort of endlessly and haphazardly on reels of tape. To make any future sense and to be really worthwhile, these tapes should be listened to (edited) to find out what's worth keeping. Formerly this has meant sticking close to my recorder as I played the tapes, so I could make note of the index readings when interesting bits came up on tape. Not any more, though! Nowadays when I start up the recorder for this chore I usually plug it into our remote speaker system (speakers all around the house), pick up my clock and a scratch pad and start wandering. Most of the stuff is junk so I only listen with half an ear as I leaf through a magazine in the den. Or make a sandwich in the kitchen. Or even work out in my shop. The moment anything worthwhile starts playing, I stop wherever I'm at and take notes and a reading.

Using this Editing Clock has saved me so much time already that perhaps I'm a bit over-enthusiastic, but I really think it's terrific! Not only does it save me time, but it also makes a tedious chore much more pleasant. And I keep finding new uses for the clock all the time. It makes a dandy impromptu "stop watch" for timing sketches, for instance. Just turn it to zero when the bit starts and note how many minutes have elapsed when it's over.

The clock I used was a General Electric "Gourmet" kitchen wall clock that runs continuously for nine months to a year on a single "D" flashlight battery. It sells for \$13.44 from Sears & Roebuck (Cat. No. 4K7213E, shpg. wt. 2 lbs., 8 ozs.) though you most likely can get it locally. I looked at quite a few clocks before I picked out this one as having all the desirable features that I wanted. Wind-up alarm clocks are way too small and regular plug-in electric



Fig. 4: Exactly center and then fasten down the 5 1/2" Minute Guide paper atop the clock's inner dial by means of double-faced Scotch tape. Go completely around the rim of the guide, marking off the sixty divisions. You'll find the clock's markings a bit less than perfectly accurate, but your later calibration will make up for this.

clocks tie you down to a nearby wall socket. The "Gourmet" clock has a 9 1/2" diameter which is just about perfect for the large easy-to-read-at-a-distance numbers that go on the special "Locater Ring" dials you'll be making up. Also, and I must admit that this rather fascinated me, the combination

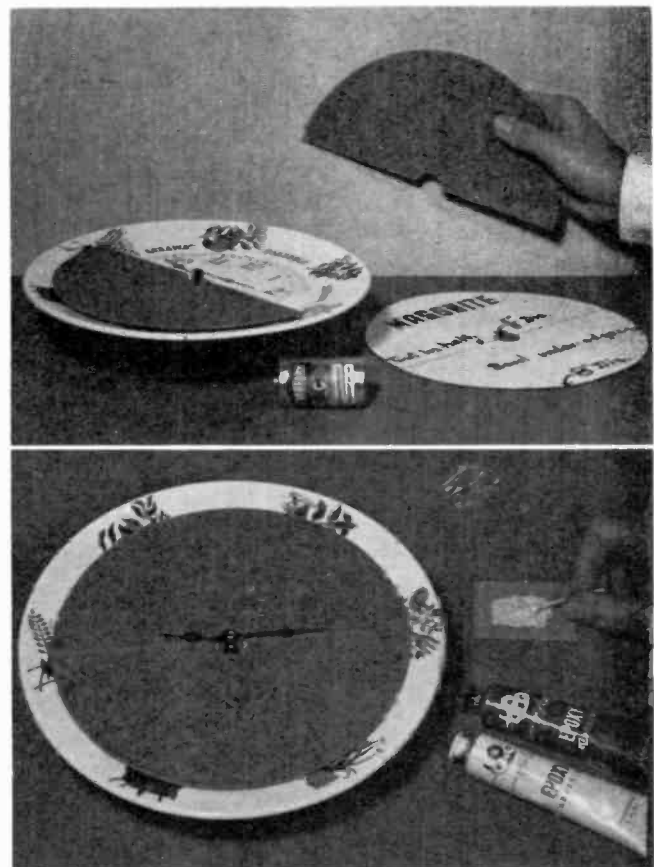


Fig. 5, top: Though not shown here, the easiest way to cut the Masonite out accurately is to first tape the paper pattern directly to the Masonite, then cut out the two pieces with a jig saw or coping saw. Use rather coarse sandpaper to sharply bevel the outer underneath edges until the Masonite lies perfectly flat on the clock dial.

Fig. 6, bottom: The original face of this clock is actually a regular dinner plate with a dial and decorations. Use Epoxy adhesive to secure a good bond between the shiny plate surface and the Masonite, with the two halves centered and matched together so that where they meet goes along the "line" from the nine to three o'clock marks.

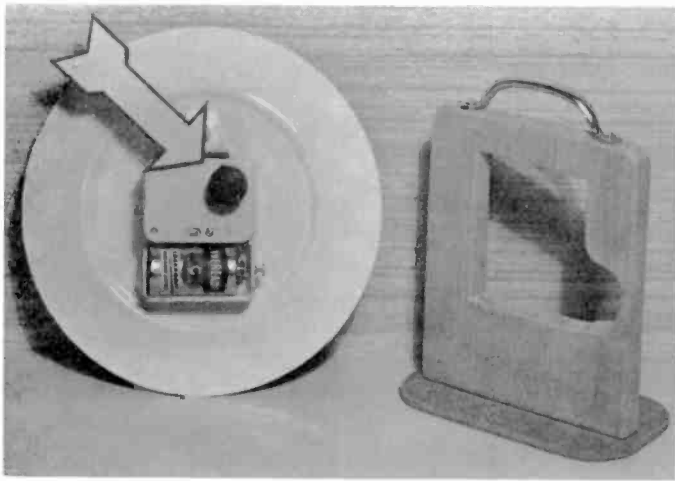


Fig. 7: The rear of the clock discloses the encased-in-plastic movement along with the flashlight battery that operates the clock continuously from nine months to a year. Also shown is the simple wooden framework that is used to support the clock, complete with carrying handle. The arrow points out a special added setting knob.

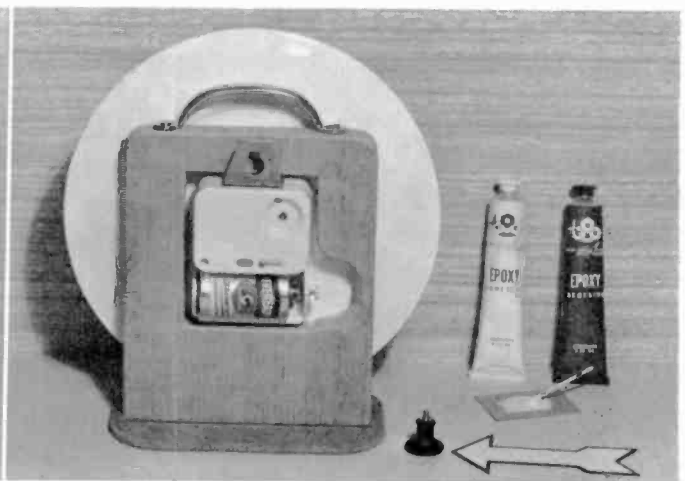


Fig. 8: Heavy-consistency Epoxy again comes to the rescue, forming a rugged and dependable bond between the slick plate surface and the wooden framework supporting the clock. Especially note that plenty of room is left for getting at the battery-mounting screw, allowing your fingers ample space for tightly securing the battery.

of these special indexing dials and a battery-run clock moror make this accessory quite a conversation piece. Painted a gay bright blue, it's quite striking and a lot of fun to *try* to explain to fascinated visitors who never fail to ask about it.

You'll be voiding the clock's guarantee the moment you alter it, so keep it running for a week or so first to make sure it's working okay. And take this same period to check to see that it keeps correct time. If a bit off, make the necessary correction at the rear of the clock and check it out again.

Before changing the face of the dial as shown, building it up to a level surface with Masonite, make your *Minute Guide* dial as shown in Fig. 4. Mark off the sixty divisions around the rim of the paper dial and be sure to mark a "zero" point so all your Locater Ring dials will be oriented exactly the same. (By the way, though I left the hour hand on the clock for most of the photos, it really isn't needed and only gets in the way, so you can carefully snip it off right away if you wish.)

Since the face of this clock is actually a ceramic plate,

complete with slanted sides and an "indented" inner dial, the $\frac{1}{4}$ " thick Masonite serves as a level surface for the smooth mounting of the various cardboard dials. These dials (Locater Rings) should be made of stiff $\frac{1}{16}$ " or thicker cardboard so they won't warp or bulge easily when mounted on the clock. The clock itself is designed to be hung on a wall so you'll have to build a simple little carrying stand to hold it for portable use. I need $\frac{3}{4}$ " wood for the vertical portion, $6\frac{1}{4}$ " wide by $7\frac{1}{2}$ " high. The base was made of Masonite, 4" by 7" with large rounded corners.

Making the special cardboard dials is a bit of a chore since you'll need a different dial for every different kind of tape and/or different speed. And be sure to use the same type *reels* each time for utmost accuracy in future readings. If you can get your wife or someone to help you make the initial readings (Fig. 11) it'll be easier and most likely more accurate. Double-faced Scotch tape provides an easy and inexpensive way to fasten down the dials: three one-inch lengths equally spaced between the clock surface and the cardboard dial. CAUTION! A $3\frac{1}{2}$ " circle is cut out of the

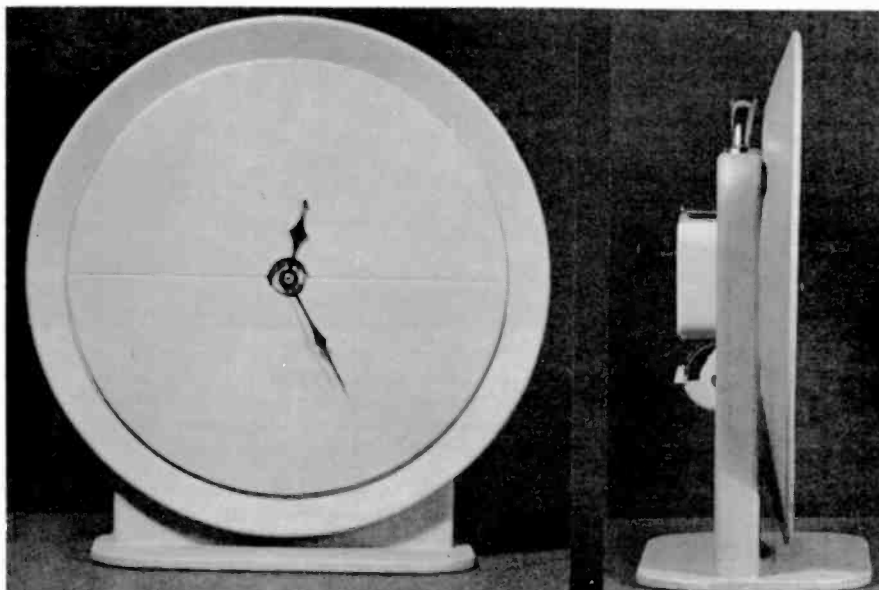


Fig. 9: The final result, shown here in two views and with an overall coat of paint (except for the movement in back), is large yet slim and graceful and almost elegant looking. It's all set for the special dials that will save you so much editing time when recording. Note that the base extends more in front, to offset the heavy plate.

Fig. 10: With the Minute Guide to aid you, preparing the Locator Ring dials is an easy matter. Use black India Ink and a ruling pen if you have them, otherwise a regular ball pen will work almost as well. In pencil, draw a 6 1/4" circle as an outer guide for the division (minute) lines, putting them in before cutting out the dial.

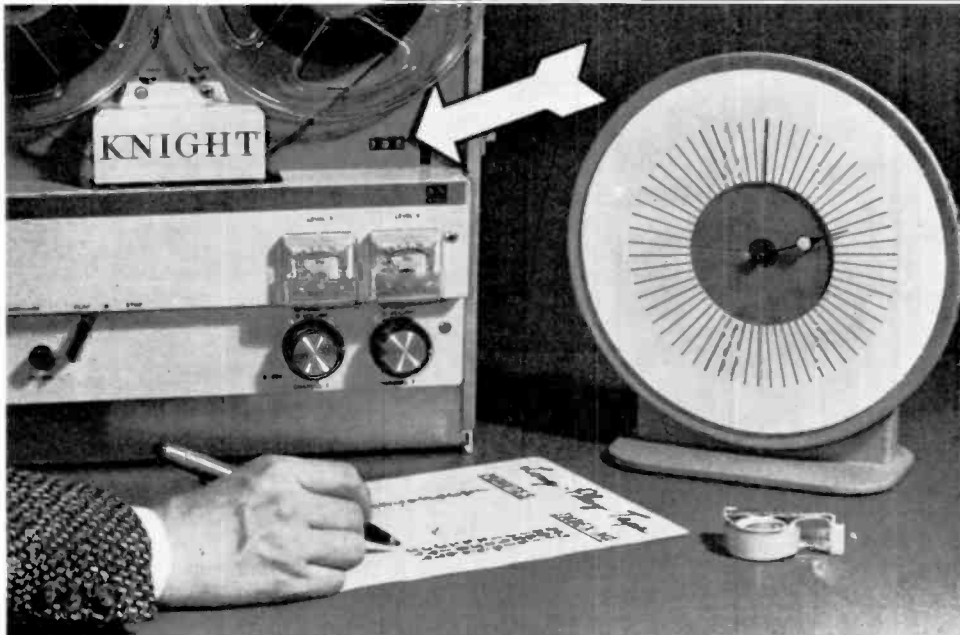
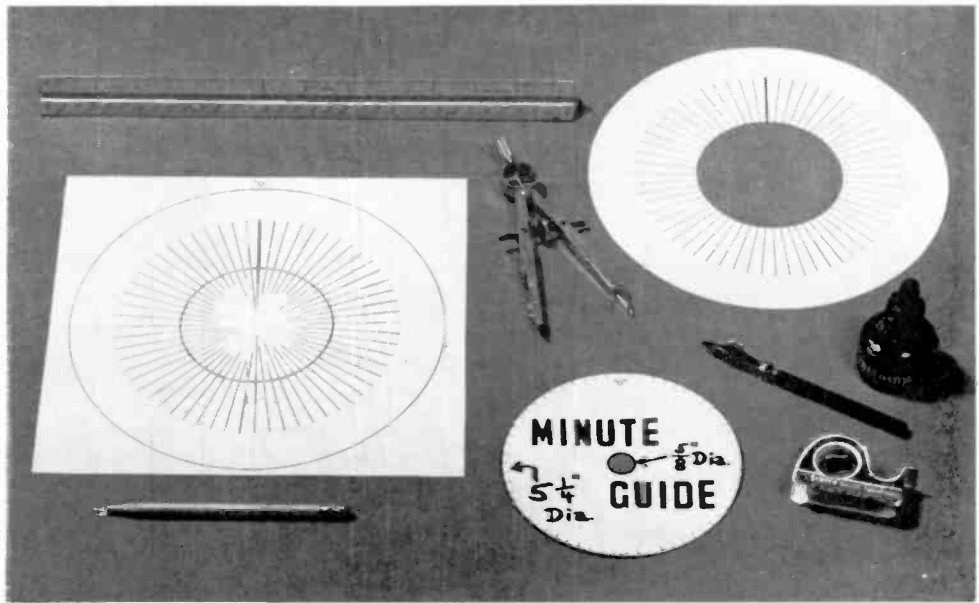


Fig. 11: Each dial you make should be individually calibrated to correspond with a particular type tape, speed used, reels, etc. Start at zero [formerly 12 o'clock] and as the large hand exactly passes each black division line, write down the digital counter number (at arrow). Ideally this chore is best handled by two people.

center of the Locator Ring calibrated dials to make them easy to slip on and off underneath the clock hand. Now this delicate clock hand won't take much abuse so if you notice that you're continually hitting it with the cardboard dials as you remove and exchange them, cut an additional *notch* out of the dials as shown in Fig. 12 (black arrow). And by the way, notice that the numbers are printed "faced in reverse" once you pass the bottom of the dial, for easier reading.

OPTIONAL! When turning the hand back to zero each time you start a tape, you can turn it from the front with your finger or with the Set Knob at the rear. This hard-to-turn little metal "knob" slips off the clock easily, so you may wish to facilitate turning it by removing it once and gluing a larger, more easily gripped turning knob to it (Figs. 7 and 8, arrow). Also, I found that it helps to glue a *bright spot of color* to the clock hand, to help your eye locate it sooner at a glance. I clipped off the head of a bright red thumbtack and glued it to the widest portion of the hand.

That's it! Interpreting this clock fluently takes practice and may fuss you up a bit at first especially when you have to "guesstimate" an index reading between the division lines. But in no time at all you'll be making "readings" from the

clock almost as fast as from the regular counter. They won't be quite as accurate, of course, but plenty close enough so later you can rapidly and easily locate any section you've marked down.

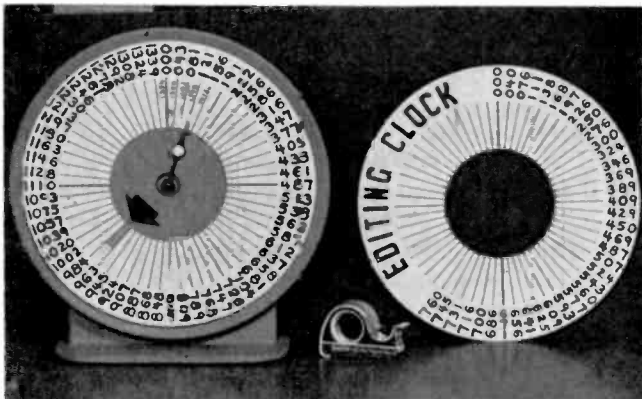


Fig. 12: Your final clock can have as many interchangeable dials as you need, and new dials can be added at any future time of course. When making the dials—transferring the digital figures—make the individual numbers as large as you can in the space you have, though without overcrowding them. Note removal of "hour" hand.



Two former winners of the Indianapolis 500-mile speed classic are exchanging reminiscences in an interview which is being taped by Jan Eden, Indianapolis sound engineer, for duplication and distribution to radio stations throughout the country. Chatting are Lee Wallard (holding microphone), 1950 champion, and Jim Rathmann, 1960 winner.

Indianapolis Speedway Interviews

. . . . taped interviews with racing drivers are submitted to radio stations for broadcast.

WHEN spring comes to Hoosierland, the famed 500-mile Indianapolis speed classic is not far away.

The city of Indianapolis turns the month of May into a 30-day-long festivity, climaxed on Memorial Day by the roar of cars at the big track scorching the asphalt at speeds in the neighborhood of 200 miles an hour on straightaways.

Many join in producing the classic. The drivers and mechanics are the stars, but the production staff is vital to the success of one of America's greatest sporting affairs.

During the weeks preceding the race, hard driving audio expert, Jan Eden, tapes interviews with race drivers, rushing the reels to 355 radio stations throughout the United States, including Alaska and Hawaii, and Canada.

The interviews add up to nearly 100 miles of "Scotch" brand sound recording tape—enough for 40 laps of the track around which the cars race before upwards of 250,000 enthralled viewers.

To do so, Eden must virtually out-race the racers. The tapes promote interest in the classic and especially in safe driving. They are sponsored by the Champion Spark Plug Company, Toledo, Ohio. Champion's staff of safety lecturers, who are veteran speedway drivers, conduct the interviews, easing the racing entrants into off-the-cuff conversations about their experiences and aspirations.

Eden's portable remote sound recording equipment is set up at the track pit wall, where background noises of racing

automobiles and mechanic's shouts authenticate the interviews. The interviews can be moved indoors or to Eden's mobile recording truck during periods of inclement weather.

As Eden tapes an interview, it is transmitted by telephone line to his studio 15 miles away where it is recorded for duplicating. The telephonic transmission permits him to streamline the operation to the point where an interview tape can be in the mail within two hours after it is recorded.

The tape is edited for cleanness and timing as it is produced. A limiting amplifier levels the signal strengths which peak far above the voice level when the racers go by as the interview is recorded.

The tapes, which are recorded full track at $7\frac{1}{2}$ inches per second, are duplicated on seven slave recorders at 15 ips. A maximum of 84 tapes can be produced hourly.

The tapes, which usually run about $3\frac{1}{2}$ minutes in length, are duplicated in reverse so the reels do not have to be rewound to get the tape heads out.

"That is one of the things we do to make it easy for the stations to use the tape," Eden says. "We try to maintain studio quality, even though we record at a pit wall. Our equipment is kept in top condition, and we use quality 'Scotch' brand No. 111 tape."

The tapes are in the mail within two hours after the interview. "We have to maintain this pace because we are dealing with speed," Eden says. "An interview is quickly outdated in this business." Drivers are not interviewed on qualifying race days. They are too keyed up, and, besides, something could happen during the qualifications to make an interview obsolete.

The tapes are produced for radio sports shows, and are provided free of charge. References to the sponsor are confined to the Champion Highway Safety program and its "100-mile-an-hour Club," which is composed of Speedway drivers who have completed the "500" without relief at an average of 100 miles an hour or better. Most interviews are



Jan Eden, Indianapolis sound engineer, is taping an interview of Johnnie Parsons, 1950 winner of the Indianapolis 500-mile speed classic. Lee Wallard (far left) looks on as Dick McGeorge, public relations manager of the Champion Spark Plug Co., (far right) talks with Parsons.

signed off with a safe driving tip.

The program was initiated in 1955 and totalled about 75 interviews that year. Now 15 to 20 interviews are produced daily during most of the three-week-period preceding the Memorial Day race. Whenever possible interviews are localized. An interview with a driver from Florida, for example, will be sent to that state.

The list of stations requesting the tapes has grown annually, and this year may hit 400!



Jan Eden, Indianapolis sound engineer, has a well-equipped mobile recording truck at hand in case Indianapolis Speed Classic interviews must be moved from the racetrack pits because of inclement weather.



Photo Courtesy Bogen-Presto Company

The Bogen MXM is about as sophisticated as you could wish to get without going into large professional consoles. Input 1 can be switched to accommodate either a mike or a phono cartridge, and the remaining four inputs can all be filtered to eliminate extraneous noise. A further luxury not often found on mixers are bass and treble controls, which make the MXM ideal for almost any purpose.



The simplest type of commercially made mixer. This Switchcraft MINI-MIX is of the two-channel passive variety and measures only inches. It's designed to go with almost any recorder now on the market.

Photo Courtesy Switchcraft Inc.

I'VE lost count of the number of constructional articles that have been printed in this and other magazines on the subject of mixers, microphone or otherwise, and there seems to be little doubt in most people's minds that a mixer is one of the most valuable accessories that the recording fan can own (after the recorder and tape of course!). And the funny part of it is that very few writers indeed make any effort to explain their reasons for designing the mixer the way they did. Either they regard it as some kind of trade secret or they don't want everybody to know how simple it is to design one. For the work it performs, a mixer is one of the simplest pieces of electronic gadgetry known. Let's see why.

What's the main purpose of a mixer? To mix the signals from two sources and feed them into one input on the recorder (you can mix as many as you like of course, but let's keep it down to two for the moment). The easiest way to do that is just to connect them all in parallel as per Fig. 1. Perfectly legitimate, perfectly easy and it works . . . up to a point, and it won't take you very long to reach that point! You don't have any control whatsoever over the relative levels of the two signals. If one sounds louder than the other you're stuck with it, if you want to run music background beneath a voice you can't. Some sort of control is needed.

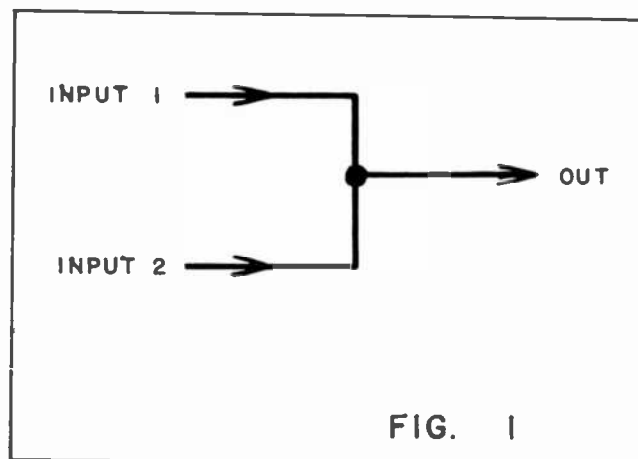
Next step (Fig. 2) is to add variable resistors in each leg of the input side of the "mixer". Well that gives you some control over the level of each input, but it doesn't take long to find that they interact like crazy and you're also getting a fair amount of distortion that wasn't there to start with. How come? No matter which input you look at, the load presented to the equipment on that input consists of two things. On

The Low-Down

. . . what they are, how they suit your needs.

input 1 for instance, there's the load represented by the input of your recorder and in parallel with it is a variable load represented by the output of whatever may be on the alternate channel in series with a variable resistor. Calculations for resistors will show that you come up with a load which is a lot lower than either of the other two and it will vary with the setting of R2. As if this isn't enough, R1 is in series with this lot, varying the whole lot all over the shop. So the load presented to either input 1 or 2 varies with the settings of both R1 and R2. Obviously that won't work.

Suppose we turn R1 and R2 into potentiometers instead of merely variable resistors (Fig. 3), or in other words, take the free end of the resistor to ground. What then? It's a step in the right direction, as I'll show in a minute, but it still won't work. A voltage will be developed across the resistors and the sliding part of the pot'r will tap off any desired portion of this voltage, so the idea is sound, but what happens to the voltage across the slider of R1 if R2 is set to its bottom (ground) end? It shorts input 1 completely to ground no matter what the setting of R1. A few seconds thought will show that the two pot'r's still interact.



The easiest way to mix two inputs. It works but you don't have any control over either input.

on Mixers

by John Berridge

work, changes you can make to

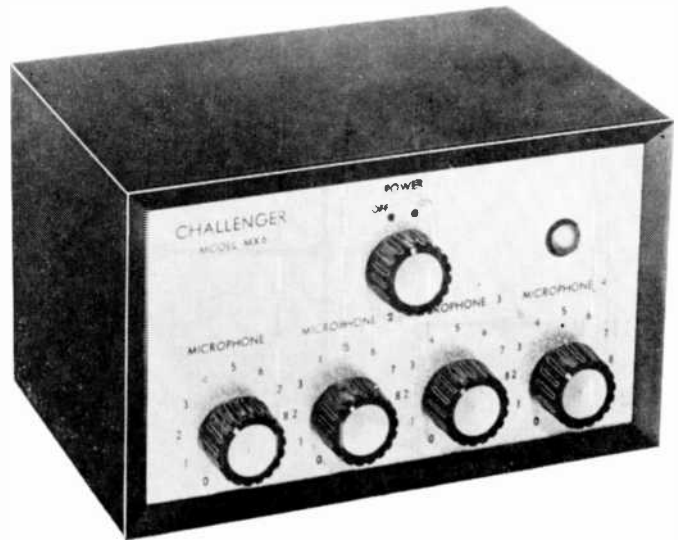


Photo Courtesy Bogen-Presto Company

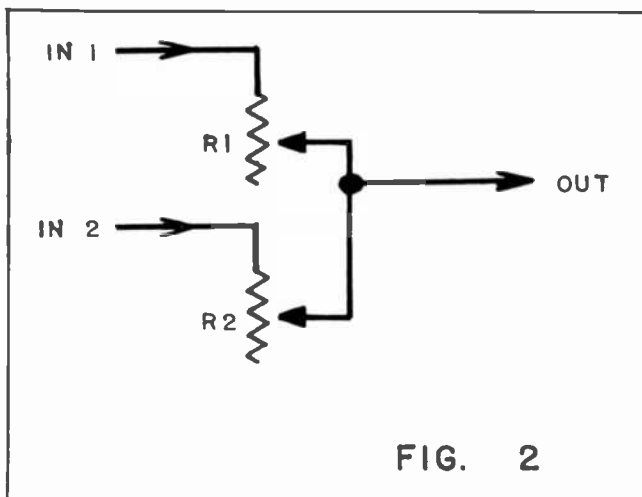
The Bogen MX-6 is one of the most widely used mixers, both for recording and P.A. work. A small pre-amplifier is included to overcome the losses of the mixing circuit.

However, using pot's does have a great deal of merit since the load presented to the equipment on any one input consists largely of the value represented by the pot'r. Bear this in mind for the next couple of paragraphs.

What we need to do now is to isolate one input from the other while still allowing both to feed the output of the "mixer". Fig. 4 shows how this is done. A fixed resistor is added in series with the slider of each pot'r and if we pick suitable values we have a perfectly practical two-channel mixer. To see what happens, let's examine the load presented to input 1 and let's also assume that R2 is set to the ground position (off, if you prefer it). The biggest percentage of the load is represented by R1. In parallel with it is a series combination of R3 and another value represented by a parallel combination of R4 and the input to the recorder (the latter I'll call Z from now on). Now if both R3 and R4 are fairly high (say ten times the value of R1 and R2) then the shunting effect across R1, even in its top position, can be kept negligible and the load presented

to input 1 is effectively constant. The same goes for input 2 and it doesn't much matter what you do with R2, it won't have much effect on the level of the signal coming from the first input. Only R1 will affect that. Note too that with these "isolating resistors" added we can now use several more inputs, all connected in the same way. In actual fact you can have eight or nine before the shunting effect of all these on any one input becomes objectionable.

So now we have a perfectly practical mixer with two or more channels as we choose. A good example of just such a simple mixer as this is the Switchcraft MINI-MIX shown. Being a two-channel device, all it consists of electronically is two pot'rs, two fixed resistors plus sundry hardware (it's the hardware and assembly that racks up the small cost of these items). There's practically nothing to go wrong with a mixer such as this and anyone can put one together. Values of the various resistors aren't hard to work out either. Since the pot'rs are effectively the load for the equipment placed on any one input, then their value should match the load called for on that equipment, plus a little more to allow for the small shunting effect of all the other resistors in the mixer. Now there are two kinds of load in present use and they're roughly divided into low impedance and high (impedance is just another way of describing resistance with embellishments). Most amateur equipment is high impedance input and, as far as AMPLIFIER outputs are concerned, high impedance output as well, and manufacturers seem to agree tacitly among themselves that "high" impedance means something like 100,000 ohms. Fortunately, you can deviate quite a bit from this without causing serious distortion. So, if the equipment plugged into one of the inputs has a high impedance output of 100,000 (or 100K) ohms then R1 and R2 should have a value something like 110K. I've already shown that it would be an advantage if R3 and R4 were something like ten times that value which makes them roughly 1,000,000 (or 1 Meg), ohm in value. All you need now is three jacks, two knobs and a box and you have your mixer, two-channel variety. Add another jack, knob, 110K pot'r and 1 megohm resistor for each extra channel.



The next step in the attempt to mix two signals. Inter-action between R1 and R2 prevents this circuit from being practical.

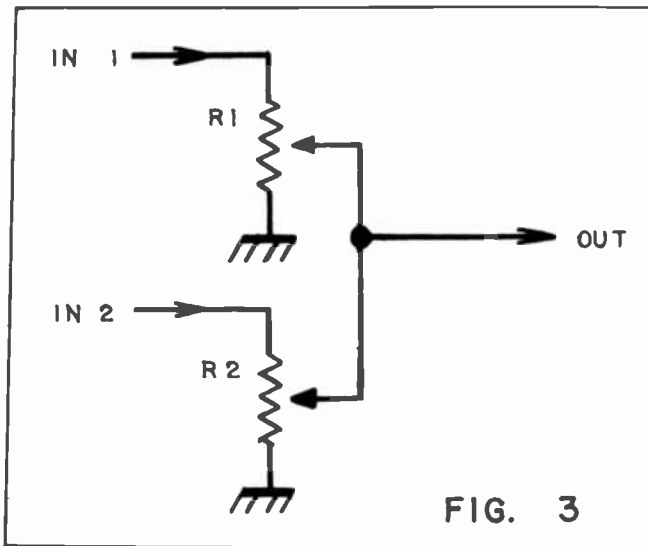


FIG. 3
Grounding the bottom ends of R1 and R2 to try and cut out the interaction between them doesn't help. If R2 is turned right down it also grounds out Input 1 and vice versa.

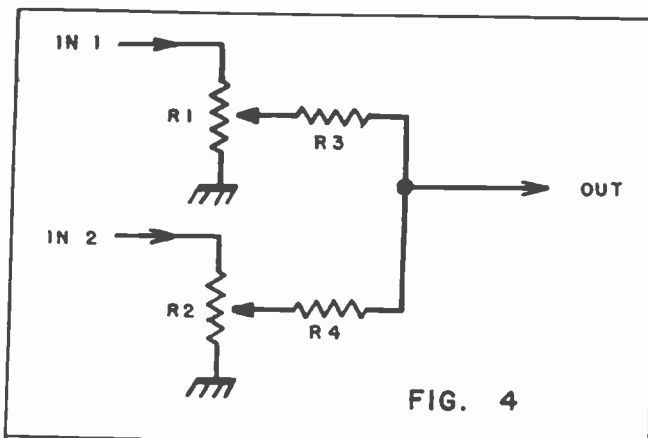


FIG. 4
Isolating the two inputs by adding R3 and R4 prevents the interacting and allows either input to feed the output at any desired level. A penalty is the loss in signal caused by the series resistance in each leg of this circuit.

OVERCOMING INSERTION LOSS

There are penalties of course. We now have a practical mixer but it isn't without its attendant disadvantages. There's a marked drop in the level of the signal before it reaches the recorder and it isn't hard to see why.

All or part of the voltage developed across the pot's is tapped off by the pot's slider and unless the control is turned right up there's going to be a loss right there. You won't be using the full output of the equipment on that input. Then there's the effect of the isolating resistors. Now the currents in audio signals are very small, in the order of milliamps or less, but remember that the isolating resistors are quite high in value and there's bound to be a certain voltage drop across these resistors. Finally, there's the shunting effect of all the other channels, though the latter is generally small enough to make very little difference. In any event, no matter how much we juggle the values of the various resistors, there's no way to avoid cutting back the strength of any of the incoming signals by at least half, even with all the controls turned full up. It's those isolating resistors that cause the loss and we've already seen that we can't do without them. This loss is just a fact of life and it's called "insertion

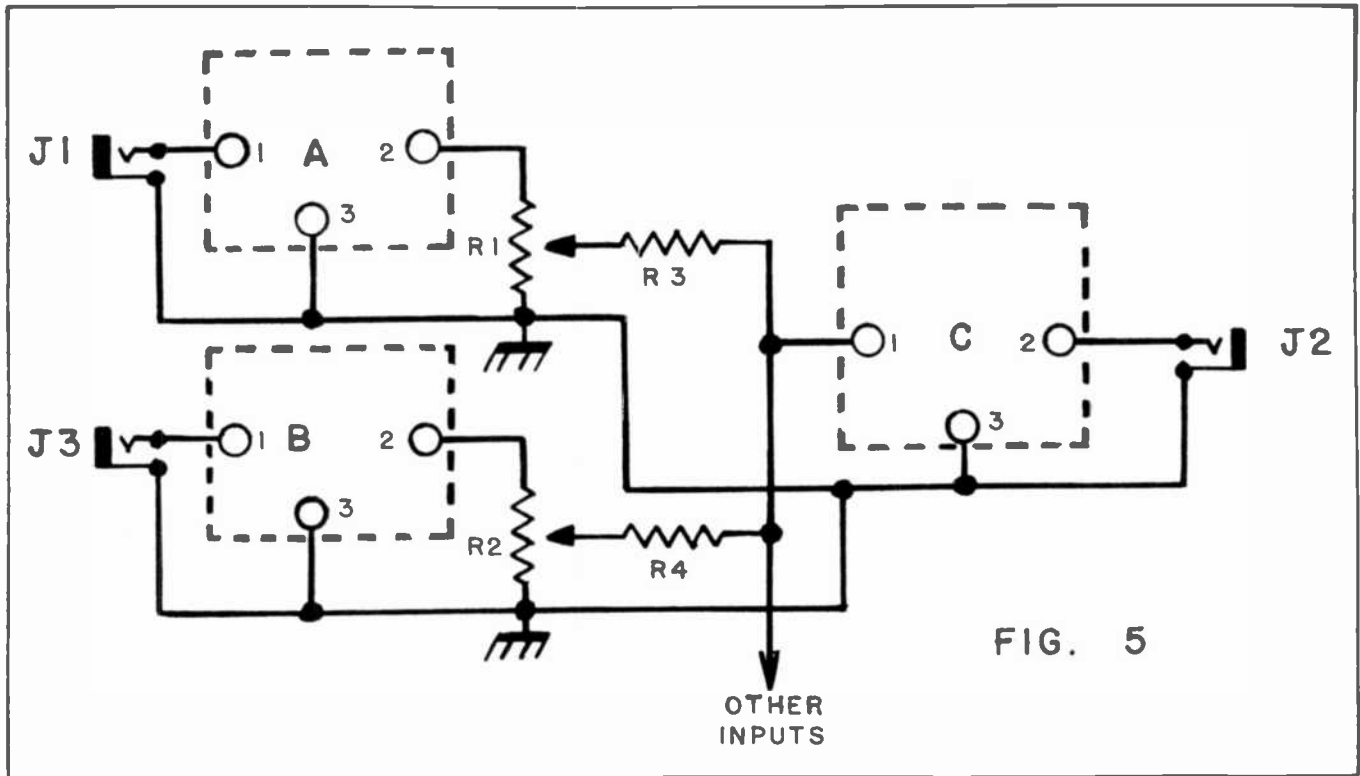
loss", a factor that has to be taken into account when we insert such a mixer into the input circuit of the recorder. Because of it too, such mixers are always called "passive" mixers.

Does this stop you from making use of such a mixer? In the majority of cases, no, since most recorders have enough extra gain to cope with this loss plus a slight leeway. Only ribbon mikes put out lower voltages than other types and unless you're planning on using two or more ribbon mikes, you can go ahead with a passive mixer with good results. Some older recorders may not have enough gain but most made in the last four or five years do. Incidentally, if you're using a passive mixer don't turn the record level control full up and then set level on the mixer, you'll get more recorder noise than necessary. Try and set all the controls so that the mixer controls are operated full up rather than the recorder. It improves what's known as your "signal-to-noise ratio". Note also that because of the insertion loss, you'll have to set the record level control somewhat higher than before and you will get more noise than previously.

Let's start with the case where the already small voltages developed by the microphone have been so cut back by the insertion loss of the mixer that there isn't enough gain in the recorder to give a decent level on the tape. Obviously we need more gain and in providing this gain we're now into the realm of what are called "active" mixers, ones with no loss but rather a little gain to spare. In the circuit of Fig. 5, if you connect straight across each one of the boxes A, B, and C you have the same circuit as Fig. 4 with the same results, but if you add a small amplifier into box C you'll have enough output to drive the recorder properly, and because we arrange it to have more gain than the normal insertion loss of the mixer you'll have more than enough signal and you'll be able to operate the recorder at a much lower level. Fig. 6 is just such an amplifier and in actual fact you don't even have to build one. You can buy mike pre-amplifiers with their own internal power supply, and a good example of this would be the General Electric Monaural Preamp UPX-003C which you can get from the Lafayette Radio people for \$14.65. Used in this fashion, an amplifier added into box C would classify as a "pre-amplifier" stage. If you're figuring on "rolling your own" incidentally, you'll need the supply of Fig. 8 to power it.

So far, so good. You've now got enough signal out of the mixer to give a good recording level with any type of recorder. Theoretically, everything works beautifully and for a while practice too. Eventually though, you may begin to find grounds for practical dissatisfaction. The signal isn't as clean through the mixer as it is from the mike alone, there's a lot more noise than before, and also the mixer controls might start introducing a crackling noise whenever they're operated. The background noise factor isn't hard to figure out. The mixing circuits are reducing an already low mike voltage to a microscopic value and you've had to use one whale of a lot of gain to get a decent signal. All this gain is amplifying the tube noise as well (you've added an extra tube remember) and your recorder is having a hard time sorting that microscopic signal from the tube noise. Your "signal-to-noise ratio" has dropped.

How about adding more gain? Hold on, haven't I got more than enough of that already? Sure, but as you've probably found out for yourself by this time there are more factors involved in mixing than just boosting the signal from a mike, and this is a good time to drag them in. The Switch-

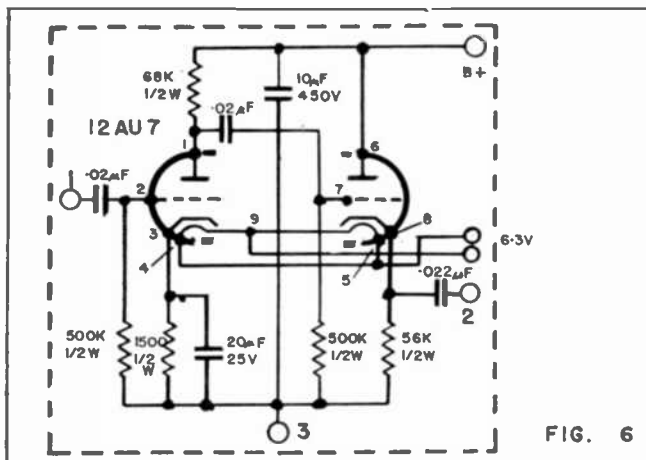


The practical version of Fig. 4. By joining 1 and 2 in each box you have a two-channel passive mixer, and by adding amplifiers (Figs. 6 and 7) it can be turned into an active one of as many channels as you need.

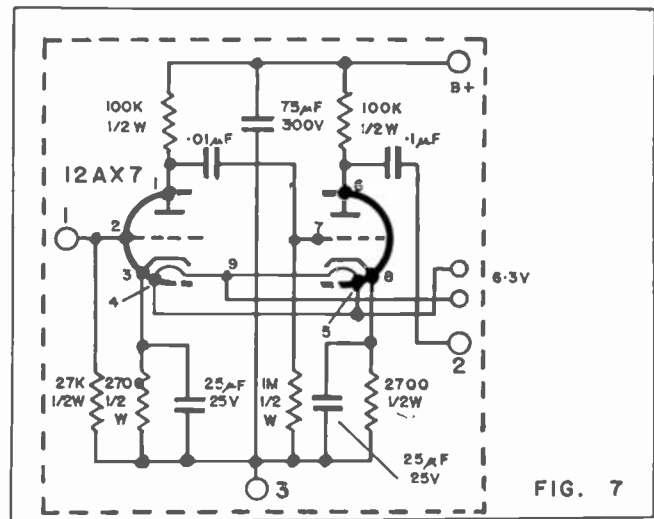
craft MINI-MIX for the recorder with lots of gain, and the Bogen MX-6 for the recorder with only enough gain, are both excellent if you're dealing only with microphones (the majority of reasons for using a mixer by the way), but what happens if you try working a mike with a phonograph, tuner or another recorder. The voltage from a mike is very low in comparison with that from, say, a phonograph and you'll find that the phono input will be turned practically all the way off while the mike input will have to be turned right up, not a very practical situation if you want to run music under a voice.

Suppose we add another amplifier into box A and connect straight across box B so that input 2 has no gain. Further suppose we arrange the gain of amplifier A so that it boosts

the voltage of a mike on input 1 to the same level as a phonograph on input 2. The mixing is done now not at the low mike voltage level but at the high phono level. In addition, the lowest voltage in the circuit is now that of the mike, and amplifier A is dealing only with low mike voltages since there aren't any microscopic voltages any more. This input amplifier A is now the pre-amplifier and the stage in box C has now become an intermediate amplifier, better known as a "line" amp. It, in its turn, is not handling very low voltages but something much higher than the mike voltage, since the gain of the pre-amp is much more than the loss due to mixing. If we arrange that the line amp. has



The "Line" amplifier which goes in box C in Fig. 5. You can make this up on its own separate chassis or in conjunction with one or more pre-amplifiers and the power supply of Fig. 8.



The "Pre-amplifier" which goes in box A, B and as many others as you wish. This pre-amplifier boosts a mike signal to the same level as a phonograph.

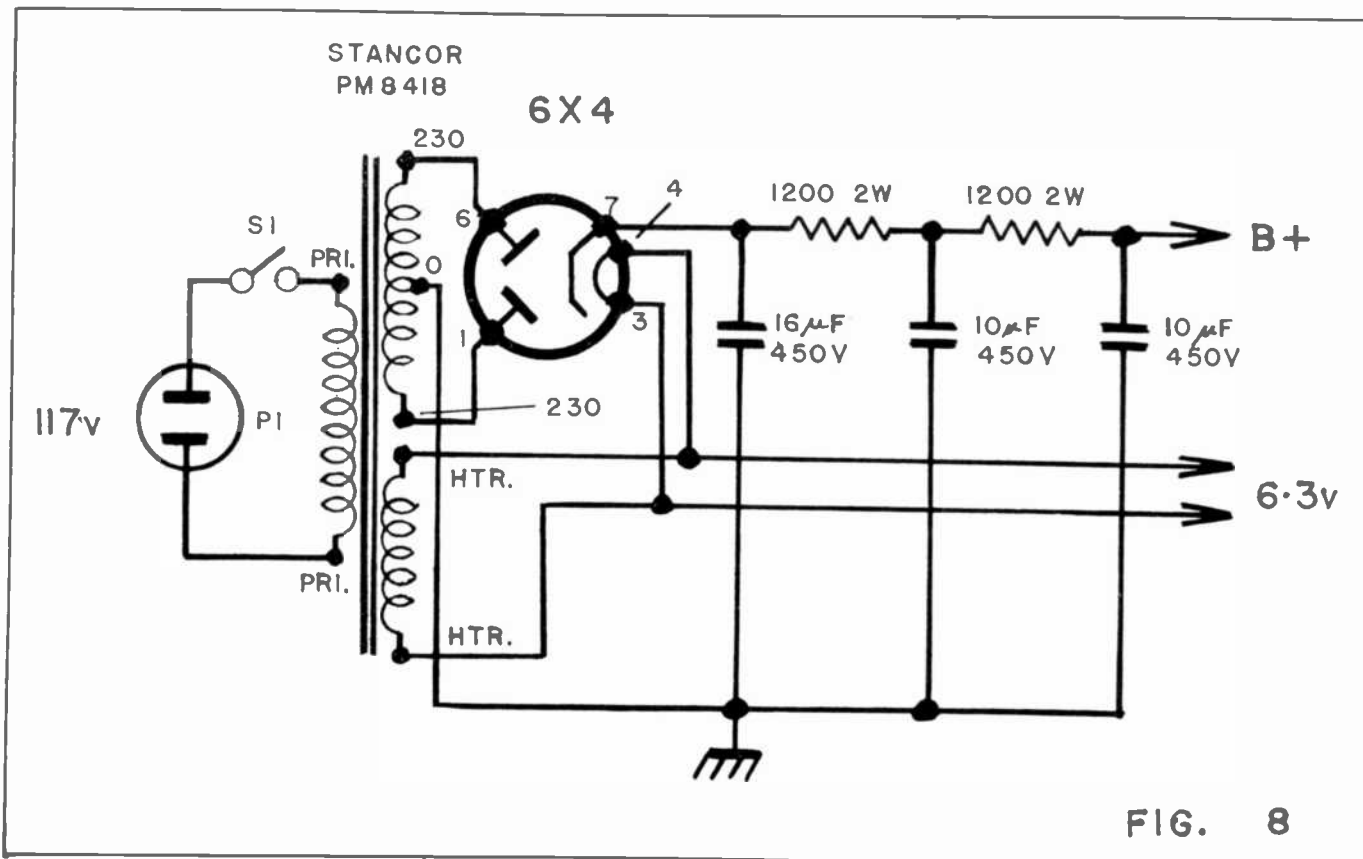


FIG. 8

A power supply with sufficient power to drive up to eight or nine pre-amps and a line amplifier. You can add a pilot light across the heater connections if you wish to know for sure when the mixer is turned on.

enough gain to overcome the mixing loss (with a little to spare for practical reasons), then the voltage you get from the mixer is essentially the same as you'd get direct from a phonograph, whichever input you have turned up. You can now use it to feed the RADIO input of the recorder rather than the MIC. input. Better still, the mixer will also feed a power amplifier direct, which means that you can use it for P.A. work, stage plays or anything else that takes your fancy. You can even mix the output of your recorder in with a microphone for P.A. work, or if you have a machine with separate playback facilities you can feed the output back into input 2 and you have a nice tape echo arrangement.

Another advantage is that your pot's aren't operating at low voltages any more and that crackling noise you were getting has all but gone (if you're REALLY fussy, you can

use high-quality molded-carbon or wirewound pot's for the job). The circuit of Fig. 7 is excellent for the pre-amp stages (the power supply of Fig. 8 will handle quite a few amplifying stages before it overloads), and as an alternative the UPX-003C will also do as a pre-amp. The 003C can also be switched for use with a magnetic phono cartridge, which means that you could use a turntable, arm and cartridge on the second input if you added another 003C. However, at fourteen bucks apiece you might find this somewhat expensive. If you want to use a second mike add another circuit like input 1, a second phonograph or tuner add another like input 2. You can keep adding up to about eight or nine though I doubt whether you'll ever need that many. You already have the basis of a very useful piece of equipment and you can tailor it to suit your own needs.

1000th Videotape Recorder



Aida Barrera, Spanish teacher for the Southwest Texas Educational Television Council, (pictured here) was tape recorded on the 1,000th Videotape recorder manufactured by Ampex Corp. Developed by Ampex five years ago to record live action for later broadcast, the device has revolutionized television broadcasting and is used increasingly in education and training. The 1,000th recorder will be used for educational broadcasts by the Council in cooperation with Austin-San Antonio station KLRN, an affiliate of the National Education Television and Radio Center, New York. KLRN will

operate the recorder from studios at the University of Texas.

Ampex delivered its first Videotape recorder in 1957, achieving a major technical advance in the field of television broadcasting. Today most network shows are tape recorded for broadcast at convenient viewing times across the country.

Of the 1000 Videotape recorders delivered by Ampex, 642 are owned by networks, individual stations, producers and educational users in the United States. The remainder are located throughout the world.

New Courses Make Language Learning Easy

. . . . V-M Corporation offers Add+A+Track® Tape Courses in French and Spanish based on latest language learning techniques.

If there were ever any doubts about the necessity for learning one or more foreign languages, these doubts have long since vanished.

Distance is no longer measured in miles but in hours. France is but six hours away. From our northern border the capital city of our southern neighbor is about three hours away by jet. The intermix of population continues with more than 100,000 refugees in Florida who are Spanish speaking people. The northern cities have seen an influx of people from Puerto Rico who seek greater opportunity than their homeland offers. Even police officers in certain districts have had to learn Spanish to be able to fulfill their duties.

As the world daily becomes smaller and more closely knit, the necessity of understanding and communicating with those who have now become our close neighbors becomes much greater.

The businessman who wishes to stay on top of his competitors will find that he must know more than his native language for markets are becoming world-wide. The great common market complex in Europe has already thrown our own legislators in a tizzy. Many companies with home offices in the United States are finding that they must erect plants in foreign lands in order to compete.

And every televiewer will be affected when the earth-orbiting satellite "Telstar," now on the drawing boards, is hurled into orbit. This will bring overseas TV programs into every living room and it will be much more fun to be able to understand the actors or speakers in their own language than to sit fat, dumb and happy awaiting the translation.

It has long been acknowledged that the most efficient way of teaching, or learning, a spoken foreign language is by means of tape. The growth of the language labs in our public school system and in colleges across the land attest to that.

While the machinery has been provided, in the form of tape recorders which permit recording on one track while listening on the other, to make this learning possible, there has been a great dearth of good tapes and other materials. To fill the void, some firms hastily voiced materials in their textbooks, others took material from disc recordings and put it on tape for use in the language labs. Even so, there was precious little good material for use in the schools and even less for general home use.

Now two new basic courses have appeared on the market, one in Spanish and the other in French which are the two most popular languages. These have been made available by the V-M Corporation who pioneered the Add+A+Track® tape recorder. The courses are suitable for use with or without a teacher and are designed for both home and school use.

The courses were designed and produced by Language Laboratories, Inc. (LLinc.) of Annapolis, Maryland exclusively for V-M. The production of the two courses took over two years and the principles upon which they are based were classroom tested for eighteen months. They are the first courses produced which are based on the tape recorder as a prime learning tool.

During the classroom test period it was found that children taught by the LLinc method progressed much more rapidly than classes taught by conventional methods and their grasp of the spoken language, their ability to use it as a means of communication and their retention of what they had learned were all ahead.

Both courses rely on a combination of audio-visual and audio-lingual techniques. Some of the approaches to teaching the foreign languages are new, while the ways in which the other elements have been combined and used make the new method highly effective—and pleasant. Great stress is placed upon teaching the student to *think* in the language and there are no boring grammar translation drills at all.

While the principle object of the courses is to teach the spoken language, the student also learns to read and to write it at the same time.

The general purpose of the basic courses is to provide the student with two things: (1) enough knowledge of the language to continue its study *in the language* and (2) to provide a sufficient vocabulary and fluency so that the student will be able to carry on simple conversations and to make his way about in a foreign country.



The V-M "Treasure Chest" courses are offered in Spanish and French. Above is shown the Spanish set which consists of four reels of tape, recorded by native speakers, four plastic bound flip books which match the tapes, an instruction manual and lesson guide and a glossary of over 1000 words used in the course. A small easel is also provided to hold the book in use and leave both hands free.

Foto 58



FOTOGRAFÍA NÚMERO CINCUENTA Y OCHO

Mozo:

Buenos días, señor.
Good(s) days, sir.

Hombre:

Buenos días.
Good(s) days.

Mozo:

¿Quiere usted una mesa, señor?
Wants you a table, sir?

Hombre:

Sí, por favor.
Yes, for favor. (*please*)

An almost full-size reproduction of two Spanish booklet pages (the actual books measure $3\frac{1}{2} \times 5$ inches). The top page has a situational picture that makes the conversation easy to understand. Fotos are numbered in Spanish so that the student automatically learns the numbers as he goes along. Bold letters are the words spoken on the tape and below them appear word for word translations which carry the syntax of the language being learned even though they are in English. The student should learn the sounds of the language from the tapes before attempting to pronounce the words. The Add+A+Track® courses are very easy to use and afford pleasant learning.

The beginning premise in the development of the basic courses was to find the answers to the question—"What would you need to know if you suddenly found yourself in a foreign land where no one spoke a word of English?" Since all of the instruction on the tapes is in the foreign language, this is the situation in which the student finds himself when he places the tape on his recorder—even to the introductory music which prefaces each reel.

The course starts out with the interpersonal relationships, I, me, you, we, they, etc. and continues through the most important basic questions such as: how do you say?, what is this?, how much?, where is?, what have you?, etc. and progresses through easy steps to more complicated situations involving food, lodging, travel, shopping and similar activities in which a stranger in a strange land would have to engage in order to get along.

The method of presentation of this material is two-fold. First, the audio-lingual approach in which the student hears the language spoken by native speakers of pure accent and imitates them and second, the visual approach in which he sees a situational photograph and the printed words which match the material spoken on the tape. It is the combination

of these two ways of learning which make the course effective.

But beyond that, a new element, based on modern teaching machine theory, has been added. All new words, or word groups are presented in small bits so that the student cannot go wrong. New words and phrases are introduced only when previously presented material assures their easy mastery. As a consequence, learning is easy and pleasant and through the reinforcement of being able to hear the master and student tracks immediately after completion, the chance of error is greatly reduced and retention of what has been learned is high.

Each basic course consists of four tapes, recorded at $3\frac{3}{4}$ ips, four flip-over books which match the tapes, a glossary of over 1000 words used in the course, the instructions for the use of the material and a small easel to hold the book being used so that both hands may be free.

All voices used on the tapes are those of native speakers. To enable the student to understand the language as spoken, a number of different voices, both men's and women's are used.

While the new words or word groups are presented in

small, readily understandable bits, the final phase is learned at full conversational speed. This latter point is very important for both French and Spanish are rather rapidly spoken languages and unless the student learns to comprehend the language as it is actually spoken he may find his comprehension of it to be lacking.

This method of word presentation caused some recording problems for Creative Associates, who made the master recordings in their studios. It was found that when the native speakers said the bits of an expression or phrase slowly so that every syllable could be understood and easily imitated by the student, they had a tendency to slow up when it came to recording the final complete phrase at full speed, just as it would have been said in normal conversation.

The only way in which this difficulty could be overcome was to do all the bits first, then go back and do all the completed conversational phrases at full speed. This produced very natural sounding dialogue.

But it also meant that thousands of splices had to be made to put the bits and pieces in their proper order in relation to the finished phrases. In addition, as each word, word group, or phrase appears on the tape there is a space left behind it in which the student records his imitation of the master track. These spaces were scientifically calculated down to the fraction of a second to allow sufficient time for recognition and repetition and yet not be so long that the presentation of the material was slowed.

To use the course, the student sets up the recorder for Add+A+Track® and connects the extension speaker. The flip book is set up on the easel and the tape started. The native voice will be heard from the extension speaker and the student listens to this while he looks at the first picture.

Below each picture are printed the words spoken on the tape and below them, in a different type, a translation of those words. At this point, the student should not look at the words for although they are made up of the same letters found in the English alphabet, they are pronounced differently. This can lead to confusion.

The entire course is broken down into Learning Units, of which there are 69. The first Learning Unit consists of just two pictures and, after the student listens to the tape covering these, he rewinds it to the start and putting the recorder in Add+A+Track® record, imitates the voice of the native speaker. When this has been accomplished, he then listens to his voice and compares it to the native speaker. If improvement is needed he makes it at once. This ability to immediately make improvements and corrections enables the student to correct errors before they become established. This is only possible with an Add+A+Track® machine.

To learn the written word, which is the next step, he listens to the tape while looking at the printed words, then he imitates the voice while looking at the printed words, compares his pronunciation with the native speaker on the tape and re-records if necessary until he is satisfied.

Next, he reads the printed words ahead of the voice on the tape. On playback he will hear himself reading the words aloud while the native voice comes right behind him with the correct pronunciation and phrasing. This reinforces his learning and produces what is known as saturation learning which increases the retention of material being learned.

To learn to write the language, which is the next step, the student plays the tape and writes down the words as he hears them. He then compares his efforts with the words printed in the book.

Thus by using the same material over and over, the student quickly gains mastery over the spoken and written word with maximum retention.

Since the master track on the tape is never touched in the Add+A+Track® process, the tapes may be used over and over again with no damage.

The translations which appear below the printed Spanish or French words in the books are unique. They are not translations into good English but, instead, are word for word translations.

For instance, in English we say "What is your name?" A Spanish speaking person says "¿Como se llama usted?" which means "How yourself calls you?". This is the type of translation which appears in all books and with good reason. Even if the student is tempted to scan the translations, which he shouldn't, he will still be forced to think in the syntax of the language being learned and not in English.

These courses lay great stress on learning to *think* in the language being learned without reference to English and this is really the only way to effectively learn to speak a foreign language.

The Learning Units, as set forth in the instructions, have been very carefully graded and the student should follow them as outlined. This is important because each unit is based on those which preceded it and by mastering each unit before going on to the next the way becomes easy when more complex ideas and sentences are presented later in the course.

While the words used in the course may seem to be geared to the situational photographs only, there is more to them than that. By the time the student has finished Book 1 and its companion tape he will have learned to pronounce and will have used every sound in the language he is learning! These basic sounds of the language are found in the words and word groups of which the conversational situations are made.

By the time the basic course is finished the student should be able to continue the study of the language in the language itself without further recourse to English. He is able to pronounce new words he meets and knows how to look them up in foreign language dictionaries. Because he has a knowledge of all the fundamental questions and answers he can easily carry on simple conversations in the language. This is easy since he has been taught to think in the language, not to think in English and then try to translate to the foreign tongue.

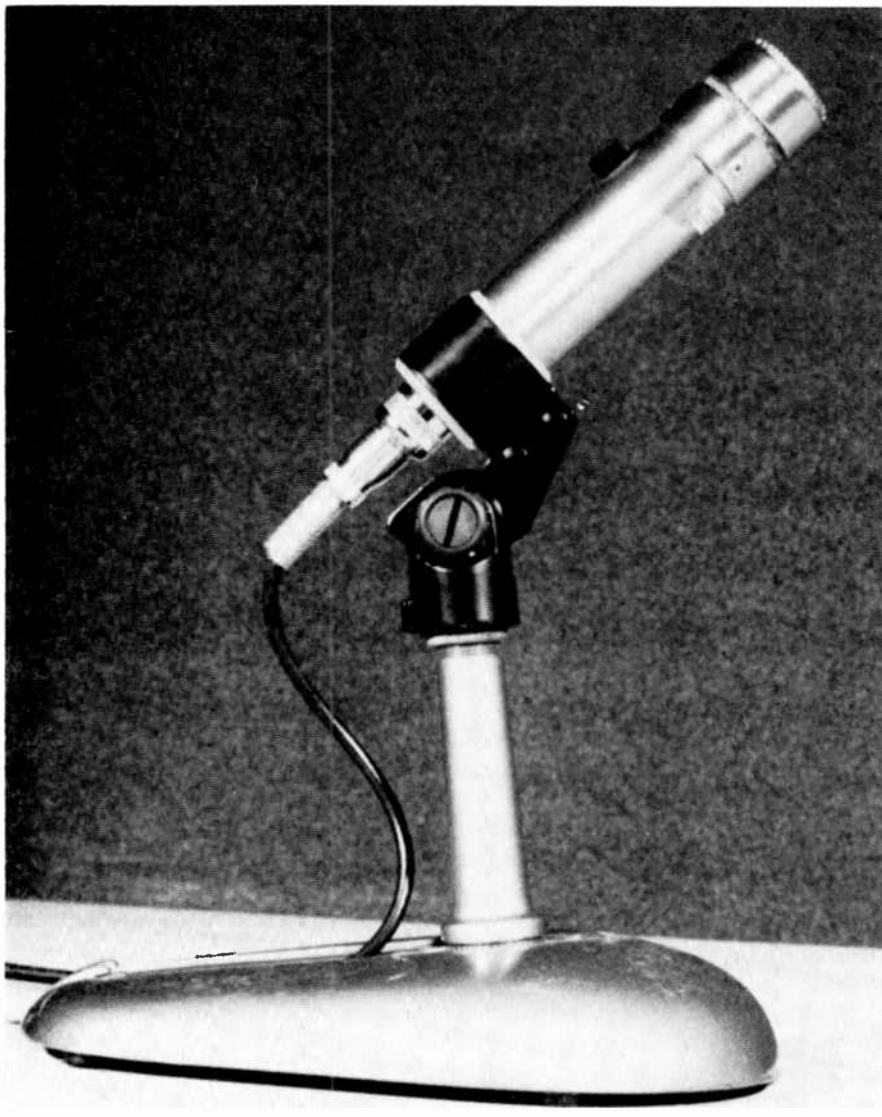
How long it will take a student to complete a basic course will depend upon the student. Someone with a knowledge of the foreign language who wishes to use the course as a check on pronunciation or as a refresher will breeze through it. Normally each of the 69 Learning Units should take from 30 to 45 minutes to master in all four phases of listening, reading, anticipating and writing.

As has been mentioned, the student should resist any tendency to rush through the course. Actually it has been broken down into so many easily assimilated bits that learning is almost automatic.

The courses are moderately priced and are available through V-M dealers.

With the world constantly shrinking and bringing its various peoples in ever increasing contact it may well be tape which will tie the whole together by providing the means whereby we can understand the other fellow and get to know him better. Apparently it is to be this—or else!

NEW PRODUCT REPORT



SHURE UNIDIRECTIONAL MICROPHONE

... designed to provide maximum pickup of wanted sound while subduing background noise.

THE Shure Uniplex Unidirectional microphone has been designed to work under adverse conditions of background noise where a mike with a wider beam would be under a severe handicap.

Employing the Shure Uniphase principle, the mike has a diaphragm actuated element combined with acoustical networks which causes cancellations of sound pressures for sounds which come from the rear.

The Model 245S was the one used for this report. It is equipped with an on-off switch on the case which may

be locked in the on position. The holder for the mike is furnished, as is the 15' cord. One nice feature is the fact that connection of the cord to the mike is made with a standard Amphenol connector.

The mike is small, measuring only $1\frac{1}{8}$ " in diameter by $4\frac{3}{4}$ " long. The cable is single conductor shielded with the shield going to ground.

The cardioid pattern of the mike pickup provides 6 db down at the sides and 15 db down at the rear. The reduced rear response permits more volume with less danger of feedback

S T A **F** O K S T E D

Product: Uniplex Unidirectional Ceramic Microphone

Manufacturer: Shure Bros., Inc., 222 Hartrey Ave., Evanston, Ill.

Price: \$37.00

for PA work. The rear response reduces pickup of random sounds by some 67%. By directing the rear of the microphone towards the audience or other source of interfering sound, pickup can be concentrated on the desired source. This also goes for reflecting surfaces which might provide difficulty from reverberation.

The microphone picks up from a broad area in front. Adding additional lengths of microphone cable will decrease the mike output but will not affect the frequency discrimination. If the drop falls below the ability of the recorder amplifier to handle it, a pre-amplifier may be inserted.

The element is a lead zirconate titanate ceramic which is impervious to moisture and which will withstand temperatures from 40 below to 170 above zero F.

The frequency response of the mike is from 50 to 7000 cycles with the response falling off rather sharply after passing the 7000 mark.

The only danger in using a ceramic mike is accidentally connecting it to a loudspeaker output or other source of high voltage which could damage the element. Otherwise ceramic elements are very rugged and stable.

The mike may be hand held or mounted on a gooseneck or table stand, or on a regular mike stand using the swivel adapter furnished.

We found the mike to be neat in appearance, practical and satisfactory in performance.



Microphone has a satin chrome case and may be hand held or stand mounted with the swivel provided. An on-off switch is built into the model 245S. 15 feet of cable is also provided as standard.

FOR YOUR AUDIO BOOKSHELF

HOW TO GET THE MOST OUT OF TAPE RECORDING

by Lee Sheridan

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

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

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by C. J. Le Bel, Vice President Audio Devices, Inc.

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Sections include: How A Tape Recorder Works, Characteristics of a Tape Recorder, Selecting A Tape Recorder, Selecting A Recording Tape, Using the Tape Recorder, Making A Microphone Recording, Acoustically Treating the Studio, Tape Editing, Binaural or Stereophonic Recording, Putting Together A Recording Show, and a Glossary of Tape Recording Terms. 5 1/4" x 8", 150 pp., paper bound, **\$1.50**
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by Charles G. Westcott and Richard F. Dubbe

This book is based on the principle that to get the most from a recorder, one must first understand thoroughly how it operates. It contains diagrams and schematics and explains in not too technical language "what's under the cover" of a recorder.

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by Joel Tall

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

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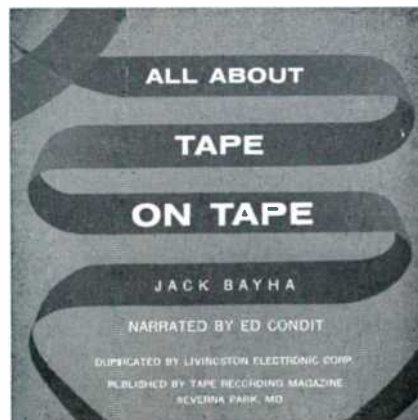
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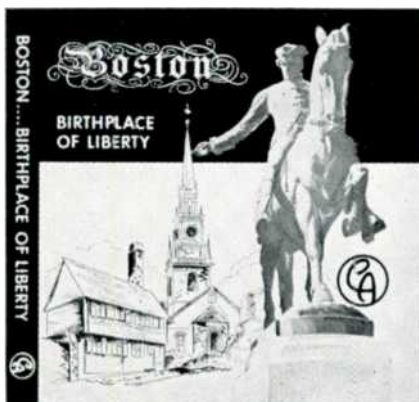
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