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# TAPE RECORDING

VOL. 8 NO. 11

OCTOBER 1961

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TRITON ELECTRONICS, INC., DEPT. T10 62-05 30th Avenue, Woodside 77, N. Y.

# NEW TAPES

★---Fair ★★---Good ★★★--Very Good ★★★★--Excellent

### CLASSICAL

Reviewed by Robert E. Benson



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

BRAHMS: Violin Concerto in D Major, Op. 77.

Isaac Stern, violinist; Philadelphia Orchestra conducted by Eugene Ormandy COLUMBIA MQ 374 4 track, 71/2 ips \$7.95 . . . 41 min.

This recording was made to celebrate Isaac Stern's twenty-fifth season as a concert artist, and it represents him at the peak of his abilities, with a glistening, expansive performance. Columbia has recorded him rather larger than life, with the superb Philadelphia Orchestra surrounding him in natural, full-blown stereophonic sound. Here there are none of the exaggerated high frequencies Columbia has favored on some of their recent tapes, and bass is sonorous, although slightly lacking definition.

I still feel the older Heifetz-Chicago Symphony-Reiner recording, available on RCA two-track tape ECS 4 (\$11.95) is the supreme recorded performance of this concerto, but the Stern is almost as good, and there are no indications that the Heifetz version will ever be released on four-track tape. The only four-track competition is the Morini-Rodzinski on Westminster P-125 (\$11.95), a twin-pack also containing the Tchaikovsky Concerto. Fine though it is, it must bow to the supremacy of this new Columbia recording.



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

BRUCH: Violin Concerto No. 1 in G Minor, Op. 26

MOŻART: Violin Concerto No. 3 in G, K. 216 Jaime Laredo, violinist; National Symphony Orchestra conducted by Howard Mitchell RCA FTC 2053

4 track, 7½ ips

\$8.95 . . . 50 min.

Extraordinary performances of two standard concertos in the violinist's repertory by the 19-year-old Jaime Laredo, who won the Queen Elizabeth Competition in Brussels in 1959. He has the virtuoso approach and rich tone necessary for the essentially romantic Bruch concerto, which is the more successful of the two on this tape. Doubtless in a few years Laredo will have a more complete sympathy for the Mozart style.

The National Symphony Orchestra is one of the lesser-known American ensembles fortunate enough to be recording commercially, and one can have only praise for their participation.

Victor's reproduction is somewhat light in scope, with a distant orchestral pickup, but generally good sound quality, and the processing is fine.



PUCCINI: Operatic arias from La Boheme, La Rondine, Madame Butterfly, Manon Lescaut, Tosca, Gianni Schicchi and Turandot

Eileen Farrell, soprano; Columbia Symphony Orchestra conducted by Max Rudolf COLUMBIA MQ 358

4 track, 71/2 ips

\$7.95 . . . 39 min.

Eileen Farrell is perhaps America's most beloved soprano. In 1942 she began a series of nation-wide broadcasts displaying her extraordinary abilities in all areas of music, from popular songs to operatic arias. She's always held back on her singing career so it wouldn't interfere with her happy home life (she's married to a policeman and they have two children). She has toured considerably and only recently turned to the operatic stage, making her debut at the Metropolitan Opera last season. Only in the past few years has she recorded to any great extent.



Fine as this new tape of Puccini arias is, I find it somewhat disappointing; it appears Miss Farrell may have waited too long. The fresh bloom to her voice isn't always apparent, and as she never involves herself very deeply in the drama of the music as, for example, Maria Callas does, the result is a series of sometimes beautiful, detached performances. In questa reggia from "Turandot," a fiendishly difficult aria, finds Miss Farrell forcing her voice beyond its limit and is the least-successful aria on the tape.

Sound is generally satisfactory, closemiked and sibilant for the soloist, who is surrounded by the rather small orchestra.



Music ★★★ Performance ★★★ Fidelity ★★★ Stereo Effact ★★★

BEETHOVEN: Piano Concerto No. 5 in E Flat, Op. 73 "Empercr" Piano Sonata No. 14 in C Sharp Minor, Op. 27 No. 2 "Moonlight" Piano Sonata No. 8 in C Minor, Op. 13 "Pathetique" Wilhelm Backhaus, pianist; Vienna Philharmonic Orchestra conducted by Hans Schmidt-Isserstedt LONDON LCK 80048

4 track, 71/2 ips

\$11.95 . . . 68 min.

Containing as it does Beethoven's most popular piano concerto and his two bestknown piano sonatas, this tape is certain to attract a large audience, particularly as the concerto is heard without interruption. Backhaus is a specialist in the music of Beethoven; more exciting performances exist on records, but none are more musically satisfying than those on this tape. The magnificent Vienna Philharmonic strings sound rather thin as recorded here, but the solo piano has a solid ring to it, and the over-all effect is very good. Prospective purchasers of the Emperor Concerto might want to keep in mind that new recordings of this concerto by both Van Cliburn and Leon Fleisher will be released within the next few months. and doubtless they will soon be available on four-track tape.



 Music
 ★★★☆

 Performance
 ★★

 Fidelity
 ★★

 Stereo Effect
 ★★

BRAHMS: Symphony No. 3 in F, Op. 90 Symphony No. 4 in E Minor, Op. 98 Vienna Philharmonic Orchestra conducted by Rafael Kubelik

LONDON LCK 80055

4 track, 7½ ips

\$11.95 . . . 77 min.

Kubelik can be relied upon for a sane interpretation, if not always an exciting one. These are prosaic readings, offering no new insight into the scores involved. The beauty of the Vienna Philharmonic Orches-



to capture snapshots in sound —for under \$100

Now you can capture snapshots in sound—with the first Webcor-quality American-made tape recorder under \$100. This new <u>COMPACT DELUXE</u> even records and plays back your own slide-show narration, with sound effects! Compact in size and price only, it's loaded with deluxe features: two speeds, dual track, plays three sizes of tape reels; complete with powerful amplifier, high fidelity speaker, wide range microphone, volume and tone controls, record level scale, and slide synchronizer jack. You'll value its versatility; besides slide shows, you'll use it for studies, parties, business—all the sounds of life!



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tra has largely eluded the London engineers on this release, with string tone, in particular, thin, strident and quite unpleasant. Definitely not one of London's best endeavors.



BERLIOZ: Fantastic Symphony, Op. 14 Vienna Philharmonic Orchestra conducted by Pierre Monteux RCA FTC 2033 4 track, 7½ ips \$8.95

Although on the tame side, this is by far the best *Fantastic* currently available on tape, primarily because of the sound of the Vienna Philharmonic Orchestra, which is glorious, with a richness that usually isn't captured on this orchestra's recordings. The symphony is given a solid performance under Monteux' sure hand, but there is yet to be a recording of this music which really takes advantage of everything in the score.

The stereo effect here is rather strange, with the first violins on the left and the second violins on the right, spreading the string tone around. Brass seems to be placed predominantly in the middle rather than on the right, which is rather disconcerting, but once one becomes accustomed to the layout it is quite acceptable. The sound of the bass drum in the March to the Scaffold is great, as is the bell in the last movement.

Up to this time the finest tape version of this music was the Everest with the London Symphony Orchestra conducted by Sir Eugene Goossens, still a good performance costing a dollar less than the new Victor Tape. The Paris Conservatory Orchestra recording on London is simply out of the running in such company. Technically, the only fault of the Victor tape is a considerable amount of both pre and post echo.

### SHOWS





PEPE

- Pepe, Mimi, September Song, Hooray For Hollywood, The Rumble, That's How It Went, All Right, The Far Away Part of Town, Suzy's Theme, Pennies From Heaven, Let's Fall in Love, South of the Border, Lovely Day
- Shirley Jones, Maurice Chevalier, Sammy Davis, Jr., Andre Previn, Bobby Darin, Judy Garland and others
- COLPIX CXC-601
- 4 track, 71/2 ips
- \$7.95 . . . 34 mins.

I have a perennial gripe against misrepresentation. The cover of the box is dominated by Cantinflas. It's nice he made the cover, for with the exception of a couple of words in the first number, and a slightly more generous treatment by Bing Crosby, he just about made the tape.

Actually, the tape is a vaudeville performance by such guests as Maurice Chevalier, Bing Crosby, Judy Garland and Shirley Jones, interspersed with less interesting material by Bobby Darin, Sammy Davis, Jr. and Andre Previn. Their performances are well recorded, but as in any vaudeville extravaganza, there is no plot, no theme, and nothing to hold the thing together.

Besides, another gripe is to pay full price for a tape and have about 40% of one side blank. There oughta be a law!—*F. N. West* 

### POPULAR



ROSIE SOLVES THE SWINGIN' RIDDLE Sequence A: Get Me To the Church On Time, Angry, I Get Along Without You

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# the all-new

adjustable frequency response microphone

Life-like, natural reproduction achieved through a smooth response from 60 to 10,000 cps..., without coloration, *Revolutionary Adjustable Frequency Response* feature permits you to roll off highs or lows, separately or together—provides additional flexibility in a variety of microphone applications. Omni-directional..., high output dynamic element. Equipped with *reliable* on-off switch and "positive action" 150° swivel that permits you to "aim" the microphone at the source of sound. Model 5408 priced at only \$29.97 audio net.

Very Well, How Am I To Know?, You Took Advantage of Me, April In Paris Sequence B: I Ain't Got Nobody, Some of These Days, By Myself, Shine On Harvest Moon, Cabin in the Sky, Limehouse Blues Rosemary Clooney; Arranged and con-

Rosemary Clooney; Arranged and con ducted by Nelson Riddle RCA FTP 1048

4 track, 7 1/2 ips

Sooner or later two talented musicians such as Rosemary Clooney and Nelson Riddle had to get together and on this tape they make a fine combination — Rosie's expressive voice, her correct phrasing and equally pleasant manner blend with the smooth, sweet swinging musical arrangements that Nelson Riddle does so well. The result is a delight to the ear and her best album to date. Good songs, swell stereo, and excellent recording techniques make this one that Clooney and Riddle fans will want for their library.

Also available in cartridge form at 3<sup>3</sup>/<sub>4</sub> ips.—F. N. West

+++

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\*\*\*

	Music Performance Fidelity Stereo Effect
CHARLE A	Stereo Effect

AL HIRT-THE GREATEST HORN IN THE WORLD

Sequence A: Stompin' At the Savey, Begin the Beguine, Let's Do It, Sweet Sue-Just You, Undecided, I'm On My Way

Sequence 8: Out of Nowhere, Georgia On My Mind, Stella By Starlight, Willow Weep For Me, What's New, To Ava Al Hirt with Henri Rene and His Orchestra RCA FTP 1082

4 track, 7 1/2 ips

\$7.95 . . . 32 mins.

While Al Hirt may or may not be the greatest horn in the world (as the title suggests) he is certainly the biggest physically and loudest musically. Starting in New Orleans with a small Dixieland jazz combo, he has literally blown himself to the top by the overwhelming drive of his playing. He is a trumpeter par excellence, equally at home with a jazz group or a symphony, and now, in this tape, with the full instrumentation of Henri Rene's Orchestra — on one side with twenty pieces, mostly brass, and on the other with thirty pieces including 12 strings and rhythm section. Here again, he is equally as dominant, with a full rich tone and good technique.

Real low-down jazz lovers may not dig his style, but for Dixieland trumpet playing that will blow you out of your seat, this is it!—F. N. West Write for literature: Shure Brothers, Inc. 222 Hartrey Ave. Evanston, Illinois Dept. 28-J

Erases an entire reel in seconds!



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At last! A professional quality bulk eraser for the amateur recordist. The ME-77 completely removes recorded and unwanted signals from reels of tape up to ¼" wide and 7" in diameter. Seconds after you switch it on—you have a fresh—sound-free and noise-free tape ready for recording. And since the ME-77 reduces background noise 2 to 4 db below normal erase head levels, future recordings will be as clear as the original. Easy to use, the compact ME-77 comes in adurable bakelite housing. Only \$22.00

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<sup>\$7.95 ... 31</sup> mins.

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PE\* tapes are something quite NEW

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- Double play tape PE 41 giving 100% longer playing time.
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### FUJIYA JAPANESE RECORDER

TAPE ERASER



Fujiya Corporation, Ltd., 405 Lexington Avenue, New York 17, N.Y., exclusive U.S. importer of Fujiya Electric Company, Ltd., Tokyo, is marketing the Model FL-351 compact tape recorder. Tape speeds are 33/4 and 71/2 ips, with frequency range of 200-8000 cps at  $7\frac{1}{2}$  ips. The unit handles 5" tape reels, is dual-track monural, and features record-lock safety, neon-type recording level indicator, quick-stop button and single selector-control knob. The price of \$89.95 includes magnetic earphone, 5" empty reel, high performance crystal microphone and 50 cycle capstan adapter.

### SONOTONE CERAMIKE



Sonotone Corporation, Elmsford, New York, has engineered a ceramic microphone, Model CM-30, which is excellent for Citizen's Band applications. The frequency range is 100 to 6,000 cycles per second with sensitivity of -49 decibels. Made of lightweight shatterproof plastic, it is equipped with 6 feet of four-conductor shielded coil cable, a push-to-talk switch and dashboard mounting brackets. The high sensitivity is insured by a new ceramic tranducer element encased in the mike. The CM-30 comes in an attractive neutral tan gray color, with a lacquered brass grille. Price: \$14.00 complete.



Microtran Company, Inc., 145 E. Mineola Ave., Valley Stream, New York, has announced the availability of a new heavy duty magnetic tape eraser. This new bulk tape eraser is used to erase recorded signal and noise from magnetic tape without rewinding. It also develops a high intensity magnetic field enabling it to be used on tapes up to  $\frac{1}{2}$ ". Noise level is reduced below the level of standard erase heads. This eraser is cast of high impact epoxy and is permanently sealed from the elements for life. It may also be used for demagnetizing recording playback-erase heads, watches and other metal objects. The spindle mounting of reel permits demagnetizing of reels from 5" through 101/2". Spindle is removable for use with other reel sizes. Price \$18.95. Contact Microtran for additional information.

### FM STEREO BROADCAST EQUIPMENT



A line of equipment designed for recording and reproducing wide range FM stereo broadcasts, as well as other monaural and stereo program material, has been announced by Telectrosonic Corporation, 35-18 37th Street, Long Island City 1, N. Y. It is the 900-Series tape decks and preamplifiers. This series includes 5 tape decks, all essentially identical except for the head complements, pushbutton-operated, with 3-speeds, automatic shutoff and designed for horizontal or vertical mounting. Prices range from \$89.95 to \$139.00. They have a frequency response

50 to 15,000 cps at the fastest speed; flutter and wow less than 0.25%; a digital type tape counter; automatic shut-off, and a signal-to-noise ratio of -45 db.

There are 6 preamplifiers for mono or stereo record and/or play, ranging from \$29.00 to \$124.95, intended for connection to existing hi-fi amplifiers and speakers. Write to Telectro for more information.

### FERROGRAPH 424 RECORDER



Ercona Corporation, 16 West 46th Street, New York 36, N. Y., is now marketing the Ferrograph 424. This recorder is stereo and will play either 1/4, 1/2 or full track monaural, twin track stereo, or 1/4 track stereo. It will record a track stereo. It has speeds of 33/4 and 71/2 ips; frequency response 40 - 15,000 cps at the faster speed; and wow and flutter less than 0.2% at the faster speed. It has 3 motors, fast wind on/wind back, automatic stop, four preamplifiers, tandem gain controls, dial cueing/tape position indicator, and instantaneous stop/start. Maximum reel size is 814"; 114 hours playing time per track with .5 mil tape at 71/2 ips. It is priced at \$595. For all details, contact the Ercona Corp.

### STEREO CONVERSION KIT



The Nortronics Co., Inc., 1015 South 6th Street, Minneapolis 4, Minn., is marketing the R-67 conversion kit which converts Roberts. Metzner, Akai, and Terracorder tape recorders to 4-track stereo playback, while retaining existing monophonic record/play capabilities. Four-track stereo recording may be performed by using the original two recording amplifiers, or one amplifier plus the Nortronics RA-100 recording amplifier. The record/play head in this kit is the Nortronics Model TLB-2 laminated core head. It has a fine 100 micro-inch gap for high frequency response. The erase head is the Model SEQ-1 stereo erase head.



**True professional recording now within your reach.** This new Bell Stereo Tape Transport has all the features of tape recorders costing as much as \$350 more . . . every feature you need to record *with superb fidelity* . . . on 2 track and 4 track: Record Level Meters on each channel • Integrated record-playback Stereo Pre-Amplifier on single chassis • Automatic switching of record equalization to assure maximum response at 7½ and 3¾ ips speeds • Positive Record Interlock with back-lighted indicators for added safeguard against erasure • Mike Inputs on master control panel, always accessible • Stereo headphone monitor output jack on pre-amp • Electrical switching between 2 track and 4 track heads • Heavy duty 3-motor drive • Electro-dynamic braking • Wow and flutter less than 0.2% • Record-Playback frequency response of 18-16.500 cps @ 7½ ips, 18-15,000 @ 3¼ ips. 7 models, priced from \$140 to \$390, styled to match other Bell stereo components. See and hear them at your Bell dealer's. Or write for catalog. *Bell Sound Division, Thompson Ramo Wooldridge Inc., Columbus 24, Ohio.* 

Complete instructions and accessory parts are furnished with the kit, which is priced at \$39.00.

### NEW EICO CATALOG

A new, 3-color, 28-page catalog covering its complete line of stereo and mono high fidelity equipment, test instruments, ham gear, citizens radios, and transistor radios, available in both kit and wired form, has been announced by Eico Electronic Instrument Company, Inc., 33-00 Northern Blvd., Long Island City 1, N. Y. It features Eico's new Medalist series which consists of the transistorized stereo/mono tape deck RP-100, the stereo AM/FM tuner ST-96, and two integrated stereo amplifiers. In all, over 80 items are fully described in the catalog. It is available by mail on request trom the company at the above address.

### TANDBERG ADDS MAGNETIC TAPE

A new line of magnetic tapes have been added to the list of products marketed by Tandberg of America, Pelham, New York, exclusive American distributors of Tandberg tape recorders and high fidelity equipment. According to the manufacturer, the tape meets with the most rigid specifications as pertains to electrical and physical properties for all audio purposes. Each tape is provided with a metalized leader. For further details, write to the manufacturer.



# CROSSTALK

### from the Editors

WE RECENTLY RECEIVED the letter printed below. Normally such letters belong in the Feedback column but we feel this one brings up a point that needs more reiteration.

\* \* \* \* \* \* \* \* \* \* \*

PERHAPS WE HAD better identify the sender. He is Mr. Richard Kenny who calls himself "The Crazy Tapeworm." Mr. Kenny has been a recording enthusiast for as long as we can remember and his recording setup is enough to make anyone envious (at least three recorders and all top grade equipment). He tapesponds with 86 people in 16 different countries. We can vouch for the fact that some of the tapes Mr. Kenny turns out are real crazy and this hobby outlet makes up for the detail work he faces daily as a public accountant. Here is his letter:

### "WHY KEEP IT A SECRET?

I believe if the tape machine manufacturers and perhaps the tape manufacturers got together on a reasonable advertising campaign exploiting the potential FUN and USEFULNESS of a tape recorder they could increase their sales and help to promote the furthering of world peace and understanding between all nations via tapesponding. I am sure most tape machine owners have not the faintest knowledge that tapesponding clubs exist. These facts should be exploited by either placards in store windows and neat folders packed with recorders—help yourself circulars, etc. or/and, why not a free subscription to Tape Recording magazine with the purchase of each recorder. At any rate, the buyer should be made acquainted—why keep it a secret?"

\* \* \* \* \* \* \* \* \* \* \* \*

NEEDLESS TO SAY, we agree with Mr. Kenny all the way. This industry may be overlooking two things. 1—selling a tape recorder is not like selling a phonograph. A phonograph is a passive instrument, a tape recorder is a creative one—more like a camera. The more the customer knows about what he can do with it, the better, but most recorders contain only the direction booklet on how to operate the machine. 2—There may be too much emphasis on music. Music is fine and it sounds better from tape than any other way but is this the <u>number one</u> reason for owning a recorder? Perhaps, as Mr. Kenny points out, the FUN and USEFULNESS are the points to stress.

\* \* \* \* \* \* \* \* \* \* \* \*

OVER THE YEARS, we can recall only four things on which the industry got together. One was the promotion of the fact that music sounds better on tape, another was the effort to defeat the excise tax on recorders, the third was the fourtrack concept, and peaceful coexistence of reel-to-reel and cartridge, and the last is the booklet recently put out by the MRIA and the Better Business Bureau, explaining tape recorders.

\* \* \* \* \* \* \* \* \* \* \*

WHILE THE MORE progressive companies have, from time to time, given a push to the things Mr. Kenny suggests, there never has been any industry-wide effort, as well there might be. The MRIA should think it over.

\* \* \* \* \* \* \* \* \* \* \* \*

A MORE AGRESSIVE outlook on the part of the industry would certainly do it no harm. You won't find many industries that have such loyal and devoted customers who actually feel chagrined when the industry fails to back up with advertising and promotion the fun and usefulness that they personally have found in tape recorders. It is a very unusual situation, to say the least.

\* \* \* \* \* \* \* \* \* \* \*

SO UPSTAIRS THERE at MRIA, or otherwise, how about it?

# FEEDBACK

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

Dealers Won't Cooperate To the Editor:

I am disgusted with dealers who carry recorded tapes. I have been in about a dozen stores and cannot find any decent two-track stereo tapes. Either the dealer only carries four-track or only has a limited amount of two-track. A lot of dealers won't even try to order tapes from their distributors on a person's request. In other words, they've washed their hands of it completely.

I don't think this is fair to the people who have purchased two-track machines before four-track came out. What will happen if such a thing as six-track comes out? Will four-tracks be obsolete? I hope something can be done about the situation. Will you please tell me where I can get Westminster's Nutcracker Suite, 2 track?— Philip Moshcovitz, Chestnut Hill, Mass.

We would suggest that you write to Westminster, 275 Seventh Ave., New York, N. Y. They should be able to tell you where the tape is available. We would also suggest that you consider having four-track heads installed in your recorder. The cost will not be great and you will not only be able to play the two-track tapes you now have but be able to save money since fourtrack tapes are less expensive.

### 4 Track Switch Causes Problem To the Editor:

As a new subscriber to your fine magazine, first let me express my appreciation of it. In all ways tape recording needs such a publication, at all levels and you are surely filling the need. I look forward to keeping in touch with tape recording through your publication.

Now, something, I exchange "talking tapes" with a friend in Pasadena, California, of course using the same tapes, erased and recorded in the usual manner.

Recently my friend needed a new recorder and purchased a four-track job and, Whammo, what happens? The first tape I got back there was my voice still on it, and my friend's voice too, my friend, recording music for me on tapes, there was my voice along with the music.

It seems that the recorder will not totally erase a tape recorded on other instruments.

This created much distress for us and more distress for the dealer. Our dealer was most helpful, willingly exchanging instruments—a fine company to do business with.

I can visualize much distress for many people, people with back-logs of recorded tapes, tape correspondence club members, not to mention industrialists, schools, etc. with stocks of tapes, all of a sudden finding themselves with a recorder that will not erase and record in the customary manner, that will only erase a tape recorded on a like instrument.—Sidney Stribling, Agana, Guam.



Tape correspondence is about the only thing that will suffer from having two- and four-track machines used with the same tapes. There will be no trouble from tapes already on hand because a four-track machine will play two-track tapes.

The difficulty stems from the fact that a two-track recorder makes a recording about half the width of the tape. As the name implies a quarter-track or four-track machine only uses a quarter of the width of the tape.

Consequently, when an attempt is made to record on a two track tape using a fourtrack machine, half the original recording still remains on the tape and when this tape is played back on a two-track machine. both the old and new tracks are reproduced.

The obvious answer to this problem is to use a bulk eraser which will clean the whole tape at once. Since a two track recorder can playback a tape made on a fourtrack machine when clean tape is used. there will be no difficulty going from a four-track to a two-track. Likewise, the four-track tape may be erased and recorded on a two-track machine which will effectively clean off the narrow four-track sound as it makes a new two-track recording. Therefore the person who owns the four-track machine would be the one who would need the bulk eraser.

Many manufacturers are producing both two- and four-track machines. Some will record only two-track but play back fourtrack stereo, some are simply two-track monaural machines. When buying a new recorder you should know what you want to do with it so you can purchase the machine that has a head configuration suited to your needs.

### Tapespondent Enthusiast

To the Editor:

Will a speech handicap hinder acquiring tape pals? I am just beginning this fascinating hobby, thanks to the interest stimulated by the articles and features in your very excellent publication. I would like to tapespond with persons who wouldn't mind listening to a voice with a slight impediment. I am a college graduate, have a most interesting job and have a wide variety of interests. I will answer all tapes received by me. Can you put in a good word for me?—*Carl W'oyke. 2325 S. Eighth Street, Minneapolis 6, Minn.* 

If we know our readers, a good word is not necessary . . . just watch the mailbox.

### Dealer Seeks Dealer

### To the Editor:

Would it be possible for you to put us in contact with dealers who sell and specialize exclusively in the tape recording field.

Our aim in doing this is to exchange ideas and view points in order to improve our own business and perhaps that of our correspondents.—J. Frydman, Tape Recording Center, Inc., 5239 Park Avenue. Montreal, Canada.



See Your Electronics Parts Dealer, or Write:



# TAPE IN EDUCATION

. . . . . Robert C. Snyder

### (Continued from last month.)

Skill in most ballroom dancing is largely a matter of ability to perform more or less intricate patterns of movement at sophisticated tempos—that is, at speeds and rhythms above the abilities of beginners or even the moderately experienced.

From the beginning it is well to recognize that different learners have different ultimate capacities to learn depending upon many factors including motor skills, confidence, interest, etc. This, of course, is equally true of learners of all types of muscular coordination skills.

Whether the skill pertains to operation of office machines such as typewriters, calculators, or card punch machines, manual skills such as juggling, baton twirling, or production machine operation, vocal skills such as public speaking, foreign languages, or singing, or musical performance skills such as playing an instrument, the general principles of learning the skill are much the same.

First the learner must learn to make a number of separate, related or unrelated movements such as various types of steps used in dancing or various types of strokes and movements used in typewriting. Then these various individual movements must be combined into complex patterns, usually involving a rhythmic relation of one movement or group of movements to another.

Ballroom dancing instruction, for example, involves teaching both the step pattern of the dance—which is a pattern of muscular coordination—and the rhythm and "sense" or "feel" of the particular dance—also a matter of muscular coordination.

The individual dance steps and patterns of dance steps are usually learned more easily at speeds below the tempo at which the dance is normally performed. The exact degree of slowing which is most beneficial for first instruction, of course, depends upon the nature and normal tempo of the particular dance concerned.

But after the dance steps and their related rhythms are learned at the reduced speed, it is then necessary to bring the tempo of the muscular coordination pattern up to normal. Where the original slowing consisted of as much as fifty per cent—as in the case of the cha-cha—experience indicates that it is too much to make the jump to full normal tempo in one step.

Theoretically, it might be possible to make the transition by using different pieces of music in the particular dance style which were recorded at different tempos. However, in practice this apparently does not work well. Students develop strong preferences for certain selections and seem to learn more quickly to them.

It is for this reason that we are planning to undertake an experiment using a series of time expansions of varying degree of slowdown for recordings which have proved popular and exceptionally effective in teaching each of several popular ballroom dances.

Technically, at this moment it is our intention to provide either four or five different speeds ranging from 50% of normal tempo up to 100% of normal tempo for each of the several dance styles.

The series of time expansions will be arranged going from slowest up to normal and probably will be in four steps at about 50%, 65%, 80%, and 100% of normal tempo for fast dances like the cha-cha, and in five steps at about 50%, 60%, 72%, 85%, and 100% for slower dances like the tango which do not seem to benefit from slowing to half speed and may even benefit from a slight increase in tempo.

The experimental tapes will be recorded at  $3\frac{3}{4}$  inches per second and will be played on normal two-speed tape machines. As a result, by using both  $3\frac{3}{4}$  and  $7\frac{1}{2}$ ips speeds, it will be possible to have tempos in either seven or nine approximately evenly progressive steps from 50%to 200% of normal tempo.

If the experiment works with dancing as expected, it would seem logical to try it next on speech correction and on musical peformance skills such as playing the piano or violin.

In speech correction and musical performance skills it would seem a natural to combine the time expansion series with an add-a-track type recorder. In this fashion the student could compare his own performance with a master track recording of a superior speaker or performer which had been time expanded to provide an opportunity to hear the desired performance in "slow motion" in a fashion that could not be duplicated in any other way.

Efforts to produce "slow motion" versions of speech and vocal and musical performances by other means have not in the past proved particularly successful. When a speaker attempts to slow down his speech, or a musician his musical performance, he does not seem able to maintain the same emphasis and rhythm. The slowed down version usually varies in greater or lesser degree from the normaltempo performance.

Time expansions, however, appear to provide a slowing of the performance without variation in technique or detail very nearly a true "slow motion" hearing of the performance.

Such "slow motion" examinations of musical performances or speech patterns might prove of great value in understanding the component elements of a superior performance or speech pattern.

Coupled with an add-a-track opportunity to "say along" or "play along" with the master, it seems inevitable that improved and accelerated learning would result.

We will let you know what we learn just as soon as we have any clear, reproducible results.

# TAPE CLUB NEWS

Clock Repaired by Tapespondence Ever hear of a clock being repaired by tape? Well, the fact that it has been done demonstrates one more of the limitless possibilities of voicespondence.

VS member Mrs. Jack Vaughn of Houston, Texas, owns the clock, and it is a 100year-old family heirloom that became hers when she married. Only trouble was that it just wouldn't run. Her dad, E. R. Lacy, back in Albuquerque, New Mexico, had been a master watch and clockmaker, and Jack and Sylvia kept up a regular voicespondence with him. After Jack and Sylvia had tinkered with the clock to the best of their ability, they set a mike close by and recorded its irregular and faltering ticks. And as soon as dad heard the tape he instantly diagnosed the trouble and recorded explicit instructions for the final repair and adjustment of the fine old clock. Sylvia's dad has passed away now, but the clock he repaired by tape is still keeping perfect time.

### Tour-au-rubans Great Success

The Union Mondiale des Voix Francaises club has had a great response from people all over the U.S. who want to tapespond with French-speaking friends all over the world. Unfortunately, the club could not accept all interested parties because their present round robin tapes (tour-au-rubans) require an understanding of fluent French. Later on, however, the club intends to help beginners in the language, and they have already started some bilingual exchanges between U.S. and French schools, on a trial basis.

The club's experimental international round-robins were a big success in nine countries. Some of the tapes of the American and Canadian participants were unexpectedly broadcast by different radio stations in Europe which introduced the tour-au-rubans to the public. Also, the club and its tapes received the support of many newspapers and of the Belgian and French radio and television.

What a wonderful way to promote better understanding and friendship between countries throughout the world. We wish the club continued success.

### WTP Member Honored on TV

Jill Miller, co-author of the WTP song, "Let There Be Peace On Earth," met her tape pal, Wolfgang Schulz of Hamburg, Germany, before a nationwide TV audience when she was honored on the NBC program, "It Could Be You," on August 2. Jill and the 20-year-old German youth met on tape through WTP about two years ago and had become very good tape pals, but had not met personally before.

The song, "Let There Be Peace," and its worldwide distribution through World Tape Pals, its recognition and use by many youth groups such as the "Children's Crusade for Peace," was the basis for Jill's recognition on "It Could Be You." The song was recently translated into Arabic through the efforts of WTP Edmund Khouri of Beirut, Lebanon.

Sy Miller, composer of the music of the song, appeared with Jill, and Roberta Shore, glamorous young movie star, sang the song; but the surprise package was Wolfgang's appearance on the show. He had been flown from Hamburg by NBC for the event.

### 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, Secretary & President 5411 Bocage Strect Cartierville, Montreal 9, P. Q., Canada

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

CATHOLIC TAPE RECORDERS OF AMERICA. INTERNATIONAL Jerame W. Ciarrocchi, Secretary 26 South Mount Vernon Avenue Usiontown, Pennsylvania

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

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

MAGNETO-VOX CLUB J. M. Roussel, Sec.-Exec. 8140, 10th. Avenue Montreal 38, 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.

THE VOICESPONDENCE CLJ8 Charles Owen, Secretary Noel, Virginia

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

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

### **OVERSEAS**

AUSTRALIAN TAPE RECORDISTS

ASSOC. John F. Wallen, Hon. Secretary Box 970, H., GPO. Adelaide, South Australia

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

TAPE RECORDER CLUB A. Alexander, Secretery 123 Sutton Common Rd. Sutton, Surrey, 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.





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Kit No. 1 contains ten scripts—all different—all amusing. These skits are excellent for affairs where a goodly number of party-goers are present. Everyone has something to say and he or she can say it as his imagination interprets it. The ten scripts encompass 26 different characters, 14 male and 12 female.

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# **QUESTIONS AND ANSWERS**

Questions for this department may be sent by means of a postcard or letter. Please Address your queries to "Questions and Answers." TAPE RECORDING, Severna Park, Maryland. The most interesting and widely applicable question will be used in this department.

### Reel Vibration

**Q**—I have a Telectro stereo tape recorder. Sometimes when I listen to tapes the reel will vibrate against the base. I have put on reel locks but that barely reduces the noise. What can I do to eliminate it? —J. S., Shaker Heights, Ohio,

-We would suggest that you check to A find which reels vibrate and which do not. You will probably find that they are warped or that the center hole has become enlarged. If such is the case, we would suggest that you get some new reels and wind the tape on them. Another thing which might cause the difficulty, if it is the feed reel which vibrates, is that the reel braking mechanism is out of adjustment and is grabbing instead of producing a smooth, even drag. Put one of your vibrating reels on the recorder and then observe very carefully bow the vibration is produced. This should give you a clue as to the correct remedy.

### Phono To Recorder

 $\mathbf{Q}$ —I have an Ampro 2-track recorder and a Silvertone stereo record player. Is there a way I can get the player recorded on tape and get the stereo from the player? In other words, I'd like to get the player stereo on tape through the Ampro recorder. Can I use shielded cable with plugs and jacks forming a "Y"?

Also I'd like to know how I can record a program on tape with numerous changes from record player to mike and vice versa. Everytime I change from record player to nike, or stop the record player for changes or whenever a plug or switch is disturbed, there is sort of a whine or pop in the sound. How's about a way to get away from that? I would appreciate some advice.—E. O. S., Muscatine, Iowa.

A—You can record the music on tape however it will not be stereo since the Ampro is a monophonic machine. The use of a Y connector to combine the two tracks from the record player should be satisfactory and shielded cable should be used. The takeoff point from the record player should be identical for both channels. If you use the leads from the cartridge, or the preamp (at the volume controls) or at the speaker voice coils, both leads should come from the same source.

To avoid noises, etc., when switching between your mike and the record player you will need a mixer, which is a device designed to take a number of inputs and combine them into one.

These vary in size and complexity from the simple one made by Switchcraft which is designed to take two similar inputs (two mikes) to electronic tape mixers which will accept both high and low level devices (mike and radio or phono). The simpler units are satisfactory if used with two high or low level inputs which should match fairly closely. The electronic mixers will accept a wide range of inputs.

### Demagnetization

Q—I have a "Robins Head Demagnetizer" Model AD-6. Instructions state to put the flat surface of the demagnetizer on the poles of the head across the gap. It also cautions not to press hard or scratch the poles. This seems to me like a tedious task as it is hard to get to the poles of the head on my Tandberg 5.

It also recommends the use of pressure sensitive tape on the pole pieces of the demagnetizer. What is pressure sensitive tape? I have asked a number of service men and they don't know. If I use it on the pole pieces of the demagnetizer will it be just as effective? I will appreciate any suggestions as I do not want to damage the recording head.

Is the "Magneraser" advertised by the Amplifier Corp. of America suitable for demagnetizing recording heads and will it completely erase tapes to the level of new tapes?—N. F. C., Elmira, N. Y.

A Pressure sensitive tape is any tape which has an adhesive on it so it will stick to things. Regular cellophane tape, such as Scotch tape, or masking tape and even splicing tape are all "pressure sensitive" tapes and any may be used to cover the end of the demagnetizer. Apply only a single layer. The purpose of the tape, of course, is to prevent scratching the pole pieces of the head although if you are careful in the use of the demagnetizer when applying it to the head, you will not scratch it.

The use of the tape is insurance against scratches and it does not affect the action of the demagnetizer.

It is unfortunate that so many recorders have small tape slots which makes demagnetization somewhat of a chore but, generally, if the head covers are removed, it is relatively easy. Perhaps tape recording design engineers will someday take this into account.

The Magneraser will completely erase tapes to the level of virgin tape when used according to directions. Demagnetization of tapes is accomplished by the production of a constantly diminishing field and current should not be cut off any demagnetizer until it is at least three feet away from the object being demagnetized after slowly being withdrawn.

The Magneraser may be used to demagnetize heads. Remove any head covers then turn on the unit when it is about a foot away from the heads. Bring it as close to the heads as possible and rotate it, then withdraw it holding the current on until it is about a foot from the recorder.

# "WHY MY RECORDER IS IMPORTANT TO ME" CONTEST

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

### Gentlemen:

My tape recorder is important to me because being secretary-treasurer of a labor organization and a community civic association, it enables me to tape conversation and minutes in full detail of our meetings which I transcribe into written essay at later dates.

Many times, I resort back to these tapes for valuable information which proves beneficial to the officers and members of our respective organizations.—*Carmen J. Fama, Shelton, Conn.* 

### Dear Editor:

My recorder is important to me as a student.

In my Spanish class I record the vocabulary words on an endless reel and with the use of a timer I set it to go on about an hour after I go to sleep and play until about two hours later.

In English I record definitions and parts of speech of words we are supposed to know.

In plane geometry I record theorems, axioms, assumptions, and definitions.

In my world history class I record dates and the coinciding events.

For this 1 use the Cousino Tape Vendor on which I can record up to 24 minutes with a Moebius loop.

In my radio class I record the night's assignment (commercials, disc jockey show, news, and sketches). On playback I check it for faults and awkward passages which I wouldn't regularly notice.

Since I have started this (about 8 months ago) my grades have jumped almost a full letter, and by now I would just about be lost without it.—Jerry Shifrin, Shaker Heights, Ohio.

### Gentlemen:

I retired from active trouping in show business seven years ago, and obtained a day job as an administrative clerk in the front office of the Harmonie Club, where I have been ever since. I am a professional ventriloquist, and still keep up with the art in my spare time by working banquets and club affairs. I also teach the art. Shari Lewis of TV fame was one of my first pupils when I started teaching ten years ago. I give in-person instruction, and have developed a system of teaching the art through the medium of recorded tape. That way, I am able to do business with pupils who live beyond the city limits. I also use the recorder during regular teaching sessions.

I keep my act fresh and topical. Whenever I get an idea for a fresh situation, gag, or sound effect, I practice it, then record it, after which I play it back to look for flaws. I am a student of the French language, and since I have a taped course in French, I make good use of my recorder in that respect. Needless to say, I tapespond with tape enthusiasts in France.

The population explosion has affected my own immediate family, and I get quite a workout recording the voices of my grandchildren as they come along, and grow.—*Richard J. Bruno*, N. Y.

### Dear Sirs:

My recorder is important to me because we would not have any music for our young people in our Jr. Church without it.

We pick out the hymns we are going to use for Junior worship and record them at home on an organ, then we use this recorded organ music to sing to, the same as if we had an organ.

We also use our recorder for recording scripts to accompany film strips instead of reading the script. This way if we make a mistake in reading we can erase it and do it over. We use a drinking glass and strike it with a pencil to give us the cue to change the frame on the film strip.— Norman Bailey, Tecumseh, Mich.

Gentlemen:

My tape recorder is important to me because it is the center of attraction for an occasional round of family fun. Everything from playing back the bark of the dog at half or quarter speed to a good round robin of family singing holds an interest for young and old that is hard to equal any other way.

In these days when mom is off to the PTA, son is tied up with youth activities in his scout troop, daughter is off swimming with the gang, and dad hardly has time to get his night school lessons done, we find that there are few things left that will tie the family together in a good round of fun better than our tape recorder.—W. E. Witte, Kansas City, Mo.

### Gentlemen:

Being a real estate broker, and having canvassed the country for disc recordings on real estate salesmanship, and salesmanship in general, I have found that copying these discs on tape and playing said tapes at sales meetings is an easier and more compact way of keeping these taped speeches, than trying to keep all the disc recordings in albums plus a victrola at the office.—Julian C. Frank, Detroit, Micb.





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""Mylar" is Du Pont's registered trademark for its brand of polyester film, Du Pont manufactures "Mylar", not finished magnetic recording tape.



The cruise ship will be your home away from home for a number of days and it offers all sorts of possibilities for recording, from the whistle as it pulls away from the dock to the voice of the captain describing the radar and sonar gear. This boat is the Victoria on which the author made his vacation recordings.

# **Record Your Winter Cruise**

by A. J. Morin, Jr.

. . . a winter cruise is a perfect setting for recorder and camera to preserve its memories.

W<sup>IEN</sup> the taxi drew up at Pier 42, the Incres Line M.S. Victoria lay alongside, glistening and white in afternoon sunlight. She threw a spell over us with this very first glimpse. I could hardly contain my excitement at the start of this 12-day Caribbean cruise, which I planned to bring back with me—literally—through the use of tape recorders and cameras.

To say that I was well equipped to bring back the sights and the sounds of this cruise is to put it mildly. For lasting still shots of the ship, its congenial passengers, courteous crew, and scenic spots at the intriguing ports of call, I was carrying an Agfa OPTIMA IIIS 35 millimeter camera, plus a Wollensak C-76 8mm Power-Zoom movie camera for action pictures.

The largest share of my baggage consisted of various types and sizes of tape recorders. Frank "Bring 'Em Back Alive" Buck had nothing on me. I looked equipped for an African safari instead of a leisurely jaunt down to that cruising heaven called the West Indies. I had the Roberts Model 192HT half track monophonic professional recorder; the new Revere T-2200 four-track stereophonic recorder; the small Webcor Microcorder; and the Mohawk Midgetape #500M. Each machine was destined to play a separate and important role in recording this cruise.

No sooner were we settled in our delightful air-conditioned cabin on Sapphire Deck than I found how eager the crew was to please. I decided to plug in the Revere recorder to play some recorded tapes as background music for all the bon voyage parties in nearby cabins. This was impossible without the special European connection necessary to plug into the ship's receptacle. The M.S. Victoria has an all-Italian crew and a continental charm which defies description, but for a few minutes I was wishing for just a good old American connection. In no time, however, the engineer supplied me with the necessary adapter for my use during the entire trip, and then "Rosey" Clooney's voice was soon floating through the areaways. More than one passenger stopped at our door to comment on the mellow sounds rolling off these recorded tapes, and to question us about the performance of the various recorders.

Almost before we knew it, it was 7 P.M. and we were casting off for St. Thomas, Virgin Islands. Our ship was under the command of Senior Captain Enrico Rosselli, who was formerly Senior Captain of the Italian Merchant Marine and commanded the Italian Line Flagship, Cristoforo Colombo, Captain Rosselli was well decorated during the war for his heroic exploits, and it gave us a 'snug" feeling to be sailing with such a skipper. It also meant that I might be able to record some sea-faring tales from his experiences.

In no time at all, our recorders and musical tapes proved their worth. The ship's amplifier system for piping music into the various decks, broke down. Nothing could be done to it until we put into port for repairs. The Roberts and Revere recorders worked overtime supplying the tunes of The Three Suns, the Ames Brothers, Perez Prado, and Rosemary Clooney. Not only did we play the tapes in our cabin, but we set up the Roberts recorder to tape the music of the ship's orchestra, which was truly delightful, and placed the Revere recorder in the El Patio Room for the enjoyment of everyone around.

The first two days out left much to be desired in the way of weather. The sea was rough enough to make itself felt, and many a passenger missed some of the fabulous food. One passenger was very disturbed because the roll of the ship caused the needle on his record player to slide over the record and scratch it. Not so the recorders . . . they played on to everyone's delight.

Nothing was left undone aboard the M.S. "Victoria" to make the trip wonderful. Each morning a "Daily Program" was slipped under the cabin door, not only outlining the fun for that day and evening, but also including a News Bulletin of the happenings in the world. Actually this was our only contact with people at home for twelve full exciting days, and it also served to alert us to recording possibilities for the day.

The third day, the sun shone bright and the sea was that incredible blue. We took the Microcorder and the Mohawk Midgetape recorder and wandered around interviewing the other vacationists on the sports deck. My own desire was to stretch out in the sun alongside the pool and



"Two dollars—one dollar, two dollars—a dollar fifty" so goes the good-natured haggling in the native markets. Recording this bargaining and the sounds of the market will make your trip come alive anytime you want it to.

soak up the warm rays of the sun. It was even an effort to stir myself later in the day to take part in the Ship's Horse Races in the El Patio Lounge, but it was such an ideal opportunity to record and photograph the excited and absorbed "players," that I soon forgot my thoughts of lazing around.

Excitement reigned the next morning when we awoke to find ourselves in the beautiful harbor of Charlotte Amalie, St. Thomas, Virgin Islands. Small wonder that Bluebeard chose this for his island hideaway! A two-hour tour by auto had been arranged by the Incres Line, but we decided to join friends in hiring a jeep to take us jaunting all over the island wherever we wished. For the small price of \$10, plus \$1.00 for a license, we hired a canopied jeep—looking like the surrey with the fringe on top and spent the most memorable day touring from Main St. in Charlotte Amalie to Eastern Point, to the top of the



On the island of Haiti the voodoo drums sound and even the commercialized versions of native activities can make exciting recordings. For this sort of recording a battery driven portable is best since hooking up to regular power sources may be impossible in many places.



The click of the little ball as it misses your number, the voice of the croupier, the stacking of chips and the voices of the players can be recorded in the casino.

mountain range and back again. We fell in love with Sapphire Bay and literally lost our hearts to this tiny jewellike island . . . and the unusual Banana Daiquiries didn't hurt any, either! On this jaunt the portables went along.

The next morning we docked at San Juan. Here there were two tours arranged: one a day-time trip by auto, and the other a night excursion by auto to the Caribe Hilton Hotel with its plush night club and its beautiful, fascinating Casino. Once again, we preferred to be off on our own, and took off with friends for sightseeing and shopping. This day ended in somewhat of a tragedy, though, when one of our companions left my film in the scorching sunlight. If you've ever seen melted film, you know how I felt!

There is so much to see and do on a cruise like this and all in such a short time—that it's almost hard to catch your breath. This calls for careful planning on your part to make sure you cover all the sights and sounds that you want to bring back so you can relive your trip.

Our cruise director, Ned Payne, and his entire staff, must have stayed up all night, every night, to have such a program clicking off each and every day. My cameras and recorders were working overtime both aboard ship and ashore, collecting everything possible to take home to remind us of what an exceptional vacation this was.

All the following day we sailed leisurely from Puerto Rico destined for Cap Haitien, Haiti. It was a day crammed full of fun on the sports deck, fabulous, fattening food, a dreamy tea concert by the ship's orchestra, and capped off by dancing and entertainment by "Garcia" the magician.

One of the high spots of this entire trip for us was the champagne cocktail party given by Capt. Rosselli, I'm sure everyone felt as we did that the charm of the man made the cruise just that much more beguiling. In fact, we noticed that all of the officers aboard were as gallant as they were capable. They acted always as though their main aim in life was to please, and they made it a point to join the evening dancing and add to the gaiety. They also provided some good recorded interviews. Devastatingly bright sunlight greeted us early next morning at Cap Haitien, Haiti. Known the world over for its Palace of Sans Souci and the Citadel, it is a fascinating spot. The trip from Sans Souci to the Citadel is made by mule—a tiring, two-hour trip—good only for the truly hardy souls. Needless to say, I was not one of them! We decided that jogging along on muleback was not for us, and spent a good part of the day dickering with the natives who come out to the ship with all sorts of articles to sell. Among the prize souvenirs of our trip are some grotesquely beautiful mahogany masks we bought here.

Next day was a relaxing one as we glided along to Nassau. At Capt. Rosselli's invitation, I visited the bridge and went into the wheelhouse. He took a good deal of pride in showing me the "inner workings" on the bridge, and I was properly impressed. I took the recorder into the wheelhouse and recorded my talk with the Captain and other officers. As they explained the gyro compass and other electronic instruments, and showed me the plotting of the ship's course to St. Thomas, the silent tape was recording every word. Since wheelhouse inspection is available to all interested passengers, this is an ideal spot to put a recorder to work.

Early morning arrival in Nassau was beautiful and exciting. Here, just as at San Juan, the shops close at noon for a 2-hour "siesta", so there was no time to lose for us to get ashore and do some shopping. A combined historical and scenic tour had been arranged, including a visit to Adastra Gardens to see the trained Flamingos. We were beginning to feel almost swamped by the beauty, and color, and excitement of the whole trip . . . the dazzling beaches, sapphire seas, and historical little towns. The officials of the Incres Line who mastermind these cruises really know how to cram each minute with stimulation and exhilira-



Stay alert for events put on for tourists, or native celebrations that will give you good sound. Here is the winner in an exciting turtle race.



Cruises are noted for their hospitality and, in many cases for their luxury. In San Juan, Puerto Rico is found this modern and beautiful hotel, the Carib Hilton, which among other things houses the casino shown on the opposite page. Practically all of the Carribean islands have voltage supplies suitable for operating recorders direct from the power lines.

tion. It was almost a relief when we boarded the M.S. Victoria from the tender that night to know that we would be sailing and loafing around for two more days before docking in New York.

The next two days were a gay round of concerts and tournaments, and cocktail dancing, topped off by the Captain's Gala Farewell Dinner. The ping pong finals were played on the sports deck on the last day out, and who do you suppose was the winner??!!—none other than yours truly—and I have a beautiful little loving cup to prove it!

When we pulled alongside Pier 42, twelve days after sailing, it was foggy and rainy . . . almost as though the heavens were crying for us because our wonderful vacation was ended. So far as we're concerned, it never will be over—we have the pictures of the Captain's Gala Farewell Dinner, the recordings of the ship's orchestra, the sights and the sounds of all the days at sea and all the hours ashore. No one can ever take that away from us.

So much for what happened to my wife and me on our first attempt to record a cruise. More important is what can happen to you. What should you take with you? What is there to record?

I would suggest that you take one regular recorder and one portable. The regular recorder will provide music for your stateroom and also be useful for making recordings on board ship, or in hotels ashore where there is current available. Incidentally, the Department of Commerce puts out a little booklet entitled "Electric Current Abroad" which sells for 25 cents and is available from the Government Printing Office, Superintendent of Documents, Washington 25, D. C. If your cruise ship will touch at some odd spots, you might well invest in a copy so you later won't be disappointed when the current turns out to be different than that required by your recorder. You might also check with the steamship line regarding current aboard the boat before you leave.

Taking two regular recorders, a Revere and a Roberts, and two portables, a Microcorder and a Midgetape gave us ample protection in case of breakdown but after reviewing what we were able to do we believe that one regular recorder and one portable would have been enough, as I mentioned above. Either will serve as a backstopper for the other and it is very unlikely that both could go wrong at the same time—if at all. We experienced no trouble from any of the units. A spare set of batteries for the portable should be carried.

What is there to record on a cruise ship? Well, you might look at it as a small city, with extras. Aboard the Victoria were all types and ages, including one baby and a man of 80. They came from all walks of life and all parts of the country. Interviews were easy since everyone was in a congenial mood . . . . and had plenty of time.

The captain in the wheelhouse and the chief engineer in the engine room made fascinating interview material and I suggest you plan to record them on your cruise.

Both of the cameras we took, the Wollensak Zoom movie camera and the Agfa still camera saw plenty of use but we found that it takes a team of two to make pictures and record the sound at the same time. If you happen to be a crew of one, you might train a fellow passenger to operate one or the other for you. The Zoom feature on the movie camera was very convenient.

Ashore the portables are a must. With them you are independent of power supplies and can record such things as haggling in the native markets, the roar of the surf on the beach or the spiels of the guides. You could, of course carry a regular recorder and an inverter but you had better check the battery voltages of the rental or guide cars before you leave. For an extended stay in any one vacation spot it pays to check all the angles first in regard to current availabilities. Check the nature of the current as well as the voltage. As you know, using an AC recorder on DC voltage spells ruin.

While making a record of your trip may seem onerous at times, the completed and edited tapes and films or slides will give you a thrill and recapture for you and your guests both the sights and sounds of your trip. We did it and we're glad!



One of the loudest sounds of fall is the sound of hunting. A self-powered portable will take you where the sound it.

# FALL SOUND ALBUM

by Mark Mooney, Jr.

Photos by A. Aubrey Bodine

.... harvest the sounds of the seasons on tape.

**S**OME of us are rather contrary mortals. When its spring we wish it were summer or fall, or even winter if skiing is part of our lives. Then when the season wished for arrives, we wish it were some other season, like summer because winter turns out to be so cold the car won't start and there isn't any real good skiing snow anyhow.

When the leaves are falling from the trees we wistfully wish they were just coming on instead and when the trees are bare, we want to see them again in full leaf—and so it goes. No matter what it is we sometimes wish it were something else. There is one partial cure for this wishful thinking and that is to make a series of tapes—and pictures too if you have a photographic bent—of the various seasons.

When all four tapes or tape-slide shows are completed you will have a means of recalling any season of the year vividly, of putting yourself right in the middle of it using the tapes and/or slides as props for your memory.

Memories are rather fragile things and, for the most part, are made up of a conglomeration of small things. All of our senses, touch, taste, sight, smell and hearing contribute their bits to the overall picture. But, as yet, no one has come up with a way to preserve things for our senses of touch, smell and taste, the burden must then fall on seeing, for which we have photography, and hearing, for which we have tape recording.

You might well ask what is there to record at any season that would suggest it aurally. A few moments though will reveal plenty of sounds typical of the season and particular to it.

The omni-present Good Humor man or Mr. Softee, or whatever he is called in your part of the country is a phenomena of spring and summer with his bell or tinkly tune. Bird songs are characteristic of spring, the whine of outboard motors is a summer sound and the muffled sounds of traffic, and the far-away tone of a locomotive whistle, the clank, clank, clank of the broken tire chain belong to winter just as much as Santa Claus and Christmas.

Fall, which is now upon us, brings the thoughts of beautiful leaves on the trees, of the scent of burning leaves as householders tidy up their lawns. It brings cool days with bright skies and farms with the smell of freshly pressed cider and apple pies.

But these things are sights and smells—what is there in the world of sound?

Starting at home there are a number of sound changes which take place. The children go back to school, for instance, this means some interviews on how they like school if they are going for the first time, or how they like their new teacher or subjects they are taking for the new term. The recitation of lessons, the sounds of struggling with a foreign language, the discussions of new clothes and the rattle of mothballs on the floor as the heavier garments come out of storage.

If you are a suburbanite, there is the school bus and the hullaballoo of the children getting on while their dog companions of all summer long are shooed off to stand puzzled at the strange turn of events.

Another sure sign of fall occurs in the temperate parts of the country about the last of August and continues into the fall. That is the insect chorus which begins to swell at night from the zzzzz of the long-horned grasshoppers to the "katy-did, katy-did" of the katy-dids. In fact there is an old saying connected with these insects. "Thirty days after the first katy-did sings there will be f10st.' And that is one weather proverb that is reasonably accurate.

All summer long the background sound in the home has been the more or less quiet hum of the air-conditioner. Now that familiar sound is replaced by another, the sound of the oil-burner guzzling oil and perhaps the clank of the pipes as the heating system shakes itself down for another winter. If you have quiet heat, like electric heat, you're



There is plenty of sound at a big-league football game. This shot was made in the Baltimore Colt's stadium. Not only do you have the frenzy of the crowds but the music from the bands at half-time.



Fall is an active time for the farmer with the crops to be harvested and stored for the winter. Here the thresher works on the wheat crop, throwing the chaff from the stack. There is plenty of sound to record on the farm.

licked, but forced air blowers can sound off.

The screens come down and the storm windows go up to the accompaniment of some sounds that perhaps should not be recorded when something slips and mashes a finger or raises a knot on the head.

With a new school year beginning, even the discussion around the dinner table takes on a different flavor centering around school or organized youth activities such as Boy or Girl Scouts, adult club activities, concerts or other things that reappear in the fall like the flowers do in the spring.

Out on the farms there is the sound of harvesting and threshing, the squench of the cider mill, the clanking of farm machinery and all the other things which go into the preparations for winter.

The county fairs come to life again with the sideshow barkers, the merry-go-rounds, the sounds of the cattle and hogs in the show buildings, the cackling of geese and the crowing of cocks in the poultry exhibit, as they await their turn for attention from the judges.

The sound of the hunt is also typically fall from the crack of the rifle to the wham of the shotgun, or the gay

hallo and yoicks of the foxhunter as he guides his mount through the farmer's pumpkin patch in pursuit of the baying hounds, madly chasing the aniseseed bag. Or if you live in the coon country, the sound of the baying dogs at night and the yapping of the pack when they tree the coon.

Hallowe'en comes in the fall, as does Thanksgiving and both can provide plenty of material for tape from the "Trick or Treat" gangs that come to the door to the family reunion around the festive board.

Fall is a time for football games across the land with all the color and excitement that goes with them, either in the flesh or through TV or radio. And, after the summer hiatus, the fall shows with their big name stars are back on the air again. It is also the time for acorns to drop off oak trees and fill up rain gutters or beat a tattoo on the roof of the car, and, on the coast, for an occasional hurricane named Annie, Betty or Clarice to roar up and produce some real weather.

You can doubtless think of a good many more sounds that bespeak fall in your own locality.

The first step, of course, is to get the sounds that you

want on tape. It is best if only a single track on the tape be used for this purpose since you will later want to edit the tapes and combine the many pieces into one. By using only one track you can cut where you please without destroying material that is on the other track or tracks.

In some instances you will easily be able to get the sounds right at home with the recorder plugged into the nearest convenience outlet. In others, an extension cord may be necessary to get the recorder outside the house. Be sure to use a heavy duty cord for the voltage drop in a long cord may be enough to throw the speed of the machine off and make it run slow. the actual first school day, especially in the matter of new clothes. The actual discussion, including the groans from the head of the household who will have to ante up can be recorded in regular fashion. Dinner table conversation may be picked up naturally by placing the mike in the center of the table on a cloth or small piece of foam rubber to block the pickup of vibrations from the table itself. The recorder should be allowed to run and later you can cut from the tape the pieces you want to include in the final tape.

In the evening of the first day of school the copy books, pencils and rulers are usually purchased.



There are two fall holidays, Thanksgiving and Hallowe'en, both well worth recording. A mike hidden in a nice, scary witch costume can be used to pick up the awed comments of the young fry. Or, the process may be reversed—by hiding a speaker in the costume the witch can be made to talk.

For other sounds you will need either a portable selfpowered recorder or an inverter in your car plus some extension cord to enable you to operate in the field.

There is one machine, the Wollensak Home-Auto recorder that can be powered either by the regular power lines or from a 12 volt battery, either in the car or a separate battery carried along with the recorder to any spot.

Going back over our list of suggested sounds let's see how they may best be recorded and what their possibilities are.

First, the children returning to school. The recording for this segment may start some days or weeks ahead of In a small town much of this activity will center around one store and if you have a self-powered portable, it would be a good idea to take it with you to record the bedlam that ensues, the ringing of the cash register and the discussions of whether it should be a three-ring or two-ring binder, a big package of copy paper or a little one, etc.

Recording the sounds of the night insects or the chirp of crickets will offer a challenge. The mike may be placed out of doors near a weed patch frequented by the insects with a cable running to the recorder indoors. The cable should be of shielded wire and for the mikes that come with recorders, it should not be over 25 feet long or there



The country fair is another fall activity that offers good recording possibilities. The barkers on the midway, the music of the merry-goround, the screams of the riders on the carnival rides, the sounds of cattle, sheep and poultry all combine to become the characteristic sound of the county fair. Here a horse and rider engage in the modern version of medieval jousting. The attempt is made to spear the ring while riding at full tilt. After each round the size of the ring is reduced and the contest continues until a winner is established.

may be some attenuation of the high frequencies and high frequencies are something that are very prevalent in insect songs.

As to your heating plant, try holding the mike up close or even in contact with the machinery when it is running. Otherwise make the pickup from a distance that gives a normal sound.

Farm and country fair sounds are best covered with self-powered portable or, in some cases, you can use a recorder in the car powered by the inverter. The chief problem when using the latter is that of getting close enough to the subject matter without getting in the way of farm workers or fair crowds.

The sounds of hunting, if made in the wild, likewise would require a portable but the recordings may be made anywhere a gun may be fired without bringing the local police to the scene.

For the "Trick or Treaters" that come to the door on Hallowe'en, you will need to describe the costume or ask the child to tell what he is supposed to be and draw out interview style any other facts that you think would prove interesting. Also record the general chatter and laughter of the group as they get their Treats—or you get your tricks.

For Thanksgiving, especially if the family has gathered, there should be recorded the voices of everyone present. Table conversation and the giving of thanks should likewise go on tape. It's not nice to think about it but it sometimes happens that some of the voices won't be there next year.

The preparation of the dinner, the opening and closing of the oven door, the zizzlings and sputterings as the bird is basted, the mashing of the potatoes are all part of the sound picture.

The football games can either be recorded from radio or TV or live by taking a portable to the stadium with you. If you do the latter then you will have to make like a sports announcer to give realism and reason to the crowd sounds, the bands at half-time, etc.

A collection of sounds of this sort simply strung together will mean something—but not much. Yet this is the first thing you should do with them . . . splice them together on one reel. Then listen.

Make notes as you do, as to what parts you wish to keep, which carry the greatest feeling and which come closest to capturing the mood you want to create. The tape should then be edited down until only the sounds you want to keep are present. This will take more than one listening and don't hesitate to prune. It is much better to have a short, tight show than a long, loosely put together one which will not hold interest.

Once the sounds have been established, then you should figure out a continuity to fit them together in some logical sequence. Most of them will need some sort of explanatory material to establish what they are, especially something like an acorn dropping on a car roof, or opening the oven door. These sounds by themselves mean nothing but with a word of explanation or surrounding conversation, the sounds come alive with meaning.

The sounds should be woven into a logical story sequence with either a vocal or musical transitions or bridges between them. A musical opening usually is effective and the music selected should be appropriate to the theme of the reel.

If you have made a set of color slides to go with the tape, it may be necessary to arrange the tape to fit the pictorial sequence rather than the other way around.

By the time you have finished your first rough cuts you will probably be tired hearing the tape. The best thing to do then is put it aside for a few days, then go back to it.

When you're satisfied with the makeup of the show, then is the time to try it on others and note their reactions to it. Places where it needs to be tightened up or points that need to be made more clearly will become apparent. These changes should then be made but remember that this tape was made primarily for you, to bring back to you the feeling of fall whenever you wanted it. Personal bits on the tape that have meaning to you should not be eliminated even though others might not get the point. Perhaps with a bit of tinkering, a rewording of the script, it may be possible to please both them and yourself.

Editing a tape like this is a good job for the fall and winter evenings and even while working on it you might well be thinking about the next one.

Of course it will take a year or so to make a tape for each season but when you have them completed you will have a means of gratifying your wish for a different season. Just picture, on a hot, muggy summer night being able to listen to the sounds of snow shoveling, the clank of the broken tire chain, the far away, muffled sound of a train whistle. Real cool, man, real cool.

# SOUND-ON-SOUND . . . An Interesting Shortcut

by Tommy Thomas

.... Ever thought about becoming a vocalist with a big name band?—Here's your chance.



By playing a regular phonograph record so that the music comes out of a loudspeaker located about six feet from the recording microphone, and having someone sing into this mike from only six inches away, you can "overpower" the regular phono-soloist completely. This gives you a recording which features your own singer backed up by the music (only) from the record.

**H**ERE'S a fun-type idea which you might like to explore some time. It's a system for turning out some slightly sensational sound-on-sound results, and it won't cost you any more than just a bit of your time. All you'll need is your regular tape recorder and a simple record player. If your equipment is extra "hi" in the "fi" department, swell, but this isn't necessary. Whatever you have now and are used to will work fine.

Basically, the idea is this! You pick out a popular phonograph record of a singer backed by a good orchestra ... or a chorus, or with just about any other type of background support that happens to appeal to you. Next, play the record and have some friend of yours sing right along with the vocalist on the record. You record this combination on tape, but in such a manner that you end up with a recording of your friend singing all alone. The background music (or whatever) is still there—now supporting your friend's singing—but the original singer has been completely removed.

How about that?

Here's a simple, little-cost passport to a lot of pleasant extra enjoyment to be had from your recorder. The photo above will get you started. You pick out the soloist-type record that you've decided to use. A special, expensive "sing-along" record is NOT required for this, but just an ordinary record. You play it over a regular phono system. Then, notwithstanding all former good advice to the contrary, you tape-record this music through your recording microphone which is located six or seven *feet* away from the phono loudspeaker. Finally, singing along in exact



time with the phono-singer, you have your friend only six or seven *inches* away from the mike. Done just exactly right, your friend's voice—being so much closer—will completely overpower and obliterate the original singer as far as your recording on tape is concerned. Stated quite simply, that is about all there is to it.

Naturally, though, there's a bit of a technique that you have to learn if you want to become proficient at this. Now it may "scare" you a bit when you read it on paper, but believe me it's not nearly as difficult as it may first appear. And also let me assure you that the results can be quite astounding, so the amount of work (which is fun, really) involved is nothing compared to the end enjoyment you will receive once you've mastered this idea and can work it with your friends.

AUDIOPHILES! Please bear with those of us who can actually enjoy an admittedly low-fidelity system of recording as is being described here. Personally, this is the way I've always done it and it's not bad at all. But please note that you can follow this same basic idea—though subYou will have to figure out some way of "marking" exactly where your MAXIMUM Phono/Volume Setting is, so that you can keep finding it instantly during the special sound-on-sound taping session. For this particular record and microphone arrangement, the Maximum Setting was "12."

stituting direct electrical connections, using phono/mike mixing, earphone monitoring and the best of fidelity hook-ups throughout—to produce truly outstanding results. Of course, it's a lot more work.

Let's start with the record, which can be an old 78, a 45 or a selection from an LP (better steer clear of stereo, at least at the beginning). The first time I did this, years ago, I had a great time with some old 78's (cowboy laments) which I played on a cheap portable record player. The main thing here is to choose a selection that both you and your friend like, with a definite featured soloist. And make sure to pay especial attention to the musical background accompaniment, as that is really the only part you're going to keep. Next, I recommend copying the entire song onto tape, "as is." You are going to have to get the words down on paper, which means replaying the tune over and over a few times to make sure that you're exactly right. And your friend is going to have to practice singing in perfect time with the record singer, in order to blot him out, so this means still more playings. It's best to do all this pre-



For this same set-up, "3" worked out to be the best MINIMUM Phono/Volume Setting. Do not make your Minimum Setting any lower than is absolutely necessary to fully obliterate the original phono-soloist. For the lower this setting, the less you'll hear (and record) the accompanying music, and you need this music to back up your own soloist.

liminary work with a taped version of the phonograph record, to save wear and tear on the record itself.

PLEASE NOTE! It most likely will be necessary for your friend to practice singing along with the record a dozen times or more before he/she begins to "get with it." Frankly, following another singer so exactly (don't harmonize, now) takes practice, and more practice. The thing I've discovered each time, is to be prepared for your friend to give it up as an impossible job almost at the beginning. That's the bad time in this whole deal. So, insist upon really giving it a fair trial, and soon you'll see a smile as your friend begins to catch on to the various bits of "business" used by the phono singer. From then on it's fun and just a matter of a little more final practicing.

Now you're ready to set up for the actual recording. In the photo on page 29 I show my wife sitting off to one side of the record player, but in actual practice it's usually better to be directly in front. Have the mike about six feet in front of the loudspeaker, and your singer-friend about six inches away (essentially as shown in the photo, just swung around a bit). Now, have your friend sing a few lines of the song once or twice, to give you a chance to set the tape recorder volume just exactly where you want it for the actual recording. From this point on, DO NOT CHANGE THE RECORDER VOLUME SETTING AGAIN. Then, with your friend silent, play the record loud enough-which will be pretty loud-so that it alone will "reach" the six-foot-away microphone and record at a volume more or less matching the loudness of your friend's singing voice. You will need some system of marking this particular Maximum Setting on the phono-control so that you can turn to this maximum volume instantly and nearly exactly. This you can do via a taped-on paper scale such as I find useful (see the photo, where volume "12" indicates my Maximum Setting for the phono volume). Or you can figure out any other simple marking system to give you the same result.

VERY IMPORTANT! You also have to determine a Minimum Phono-Volume Setting, and this is accomplished through trial and error. You see, a basic part of the secret of entirely eliminating the original vocalist is that you turn down the volume of the record player during all the time your friend is singing. Just during your friend's singing. When your friend is NOT singing-when there is just pure orchestral background music (or perhaps a chorus is answering the soloist)-you immediately adjust the record-player volume to the pre-determined maximum. Whenever there IS singing by your friend, you have the record playing at the pre-determined minimum volume. You find out what this is (see the photo where volume "3" indicates my Minimum Setting) by testing the record right along with your friend's singing. Keep backing up the phono volume, though not going back one bit further than you have to, until you just reach the point where your friend's voice completely overpowers that of the singer on the record. This will vary with different records and different vocalists.

Finally, you're ready to go! Each of you will need a copy of the words of the song. Also, if you can obtain one handily, use a stopwatch to further help you in your own timing. Though not at all essential, a stopwatch will help you as you sit by the phono volume control and adjust it back and forth (or is it up or down) from Maximum to Minimum as required. Put down seconds of timing for the different parts of the song, as well as anything else that will help cue you along the way. Usually the music will start out alone, so you'll be on Maximum Setting to begin with. Then you instantly shift to Minimum Setting just before your friend's singing is to start, and back to Maximum (perhaps) in the middle or somewhere along the way where his or her singing stops a few moments (though the rest of the music continues on). Then back to Minimum when your friend is due to sing again, and up to Maximum a bit later if the music finishes up alone. Run through this a few times, actually tape recording each time, and the first thing you know you'll have just the results you're looking for. In its own little way, a minor masterpiece with which to amaze and amuse your friends.

OH YES! If you're adept at splicing, you may find it easier at times to divide up a complete song into smaller portions, and then record only a portion at a time. Later, you can splice the different sections together to make a continuous result. This is a very handy system to use when you're trying to record an especially difficult bit of music, such as one where the main soloist not only has an orchestral accompaniment, *but also alternates with a chorus*, say, so often that it would make exact timing through a complete record almost an impossibility.

Naturally, because of the manner of the recording of much of this from a loudspeaker and through a microphone, your results won't be overly true in the fidelity department. But then, how many people will really notice? The fact that a person you know is singing along with a well-known orchestra is enough to awe most, and to shove aside all thoughts of exact fidelity and such. And even the fact that the orchestra partially and somewhat "unnaturally" recedes into the background whenever your friend sings, hardly seems to be noticed by those who have not actually heard the original record for comparison. (And don't play it for them, either.) All in all, the result is often quite wonderful. Afterwards, you can play the tape as a "single," or you can weave it into a special program. Get a number of your friends to make these special-effect songs for you, and then (with you as the announcer introducing the music) put together a disk-jockey-type show on tape. This is one of those things where quite a few people can get into the act, and everyone has themselves a ball. Better give it a try soon.



Make up two copies of the exact words in the song, along with any extra notations of your owr that will help you cue yourself along the way. And if you have a stop watch, all the better to guide you as to just when to turn the phono volume up to Maximum or down to Minimum. The changes will be split-second, but easy enough to make once you've practiced the music a bit, and caught on to the rhythm.

# **NEW PRODUCT REPORT**



# FUJIYA TRANSISTOR PORTABLE

.... Battery driven portable uses standard cells and has two speeds, battery and VU meter. Remote control on microphone.

THE Fujiya portable recorder is a transistorized unit which employs regular penlight cells for power.

Fully equipped with batteries, it weighs  $4\frac{1}{2}$  pounds and measures 9- $\frac{1}{2}$ " long x  $5\frac{1}{2}$ " wide x 3" thick. It has two speeds,  $3\frac{3}{4}$  ips and  $1\frac{7}{8}$  ips and uses standard 1 mil tape on three inch reels. This gives a playing time (dual track) of 30 minutes at the higher speed or one hour at the lower.

The speed change is made by removing a knurled screw in the top of the capstan shaft and lifting off the capstan sleeve. With the sleeve in place the unit runs at  $3\frac{3}{4}$  ips and when the sleeve is removed the speed becomes  $1\frac{7}{8}$  ips. A split post is provided for storing the sleeve when not in use so that it will not become lost.

The penlight batteries are housed in two "drawers" which may be pulled out from the case for battery changes. The drawers have two contacts at one end which make contact with the recorder electronics when they are put in place. Care must be taken to put the individual batteries in so that the polarity will be correct. One of the handiest features of this recorder is the presence of a push button control on the top of the dynamic mike case. The recorder is turned off or on by using this button which not only makes it fine for dictation but also makes it instantly ready for fast pickups without even so much as a look at the controls on the case.

We don't know how they managed to squeeze it in but there is a storage compartment on the left side of the top of the deck which holds the microphone and cord and also the earphone, both of which are standard equipment and come with the recorder. The dynamic speaker is situated below the deck and between the reels and is covered by a grill. The lid of the machine has a clear plastic section so that the reels may be seen and the amount of tape used readily determined and this is perforated with a pattern of holes to let the sound from the speaker emerge when the case is closed.

The case itself is of high-impact plastic in black and gold.

The unit has both a record/play



Product: Fujiya Model MTR-252 Transistorized Portable Recorder

Manufacturer: Fujiya Corporation, Ltd. 405 Lexington Ave., New York 17, N. Y.

Price: \$129.50

head and an erase head. It is dual track and the tape threading is straight line. When the stop button is depressed the head cover door, which also has the pressure pads mounted on it, falls open so that tape may be threaded easily.

Since the recorder employs a capstan and roller, tapes made upon it are playable on other recorders having the same speeds.

All controls are on the right end of the case which is the one uppermost when the recorder is carried using the shoulder strap provided: The controls are outside the lid and are readily operated with the recorder closed. Three pushbuttons take care of rewind, stop and record/play and a fourth button is the record interlock to prevent accidental erasure.

For determining recording volume the unit has a VU meter with a magnifying lens over it. This also serves to indicate battery condition. Volume control for recording and playback is controlled by a wheel type knob.

The mike is plugged into the jack on the upper end of the case. This is a double jack to take care of the con-



The recorder measures  $91/2'' \times 51/2'' \times 3''$ and weighs four-and-a-half pounds. Controls are accessible when the case is closed.



Left: All controls and jacks are on one end of the recorder. This end is up when the recorder is hung on the shoulder. The operating controls are push buttons (rewind, stop and play/record). There is also a record interlock, volume control and a meter which serves as a volume indicator and battery level check. Jacks include microphone and extension speaker. Center: Button on top of mike controls motion of recorder. Right: Penlight batteries are held in two "drawers" which are accessible through the end of the case.

trol circuit for the motor from the mike pushbutton. The extension speaker jack is next to the mike jack and serves as an output for an extension speaker or for the earphone.

Optional accessories available are a leather carrying case and an AC converter to save wear on the batteries when the unit is used where regular current is available.

The claimed frequency range is 150 to 5,000 cps and the signal to noise ratio 30 db. The recorder may be used in any position, in motion or not.

The recorder worked well under test and is well made. The mike pickup range proved to be very good and the frequency response was as claimed in the specs.



Left: Three-inch reels are used and tape threading is straight line. Head cover opens when stop button is depressed. Right: Speed change is made by changing capstan. Post shown at lower right serves to hold 334 ips capstan when recorder is used at 1% ips speed.

Since the motor batteries will run down faster than the transistor batteries, the battery drawers can be switched to put the fresher batteries on the motor side and the worn batteries on the transistors, thus extending battery use.

In our opinion the recorder represents good value for the price and merits your consideration.

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