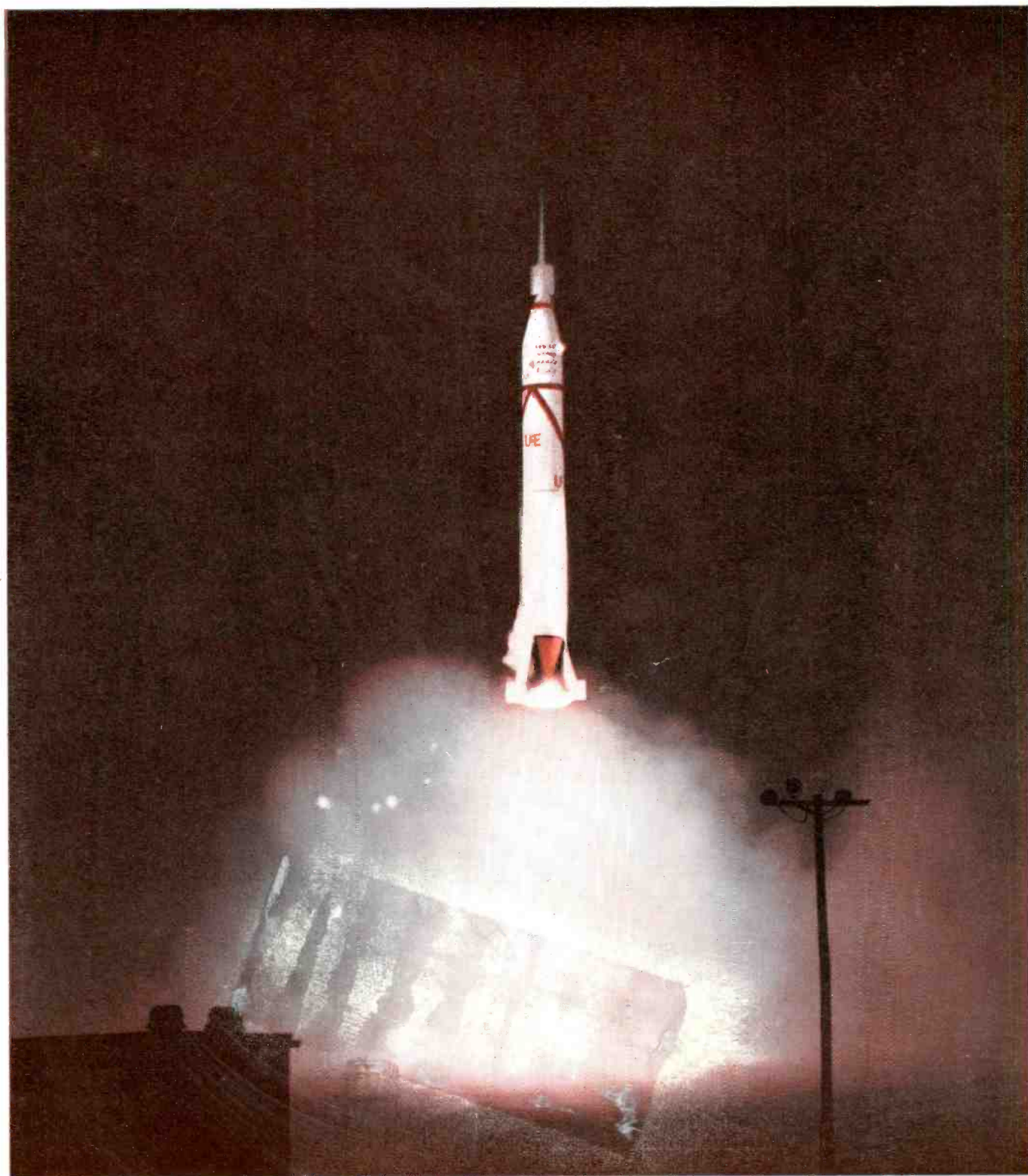




TAPE RECORDING



Stereo recording missile launching. See page 29.

July 1958

35c

NOW: a **SUPER-THIN Audiotape**
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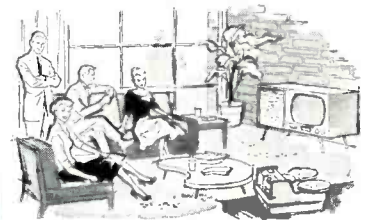
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HI-FI

TAPE RECORDING

VOL. 5 NO. 8

JULY 1958

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CROSSTALK

from the Editors

* * * * *

CHICAGO ELECTRONIC PARTS SHOW attended by radio parts jobbers, hi-fi shop owners and commercial sound distributors got a big dose of stereo both from tape and disc. Webcor will have a new tape deck with stereo playback and Norelco has added a stereo model to its line. Stereo discs were much in evidence, as were the stereo phono cartridge makers. Consensus is that stereo will completely take over home music field but it will take a few years to do it.

* * * * *

TAPE IMPROVEMENTS will keep tape in stereo vanguard. Ampex announced a conversion kit for all A series recorders to enable them to play four channel stereo tape. Kit will retail for \$75 and will enable machine to play either four track 3 $\frac{3}{4}$ ips stereo or regular 7 $\frac{1}{2}$ ips stereo. Talk is also prevalent about a four channel tape cartridge but it hasn't come out of the labs yet.

* * * * *

IT IS ESTIMATED that 80% of the recorders to be built next year will have the stereo playback feature incorporated in them. We think the industry's best bet is to bring out stereo recorders and thus keep one up in the one-upmanship game between discs and tape. After all, you can't copy a stereo record on a monaural recorder and with the increase in stereo broadcasting that is bound to come there are a lot of dyed-in-the-wool recording fans who would like to record it. Besides, recording in stereo is either twice as good or twice as bad as in monaural and it will add an extra fillup to the hobby. Straws in the wind are blowing in the direction of stereo recorders. Magnecord's new Magnecordette, at about \$400 is stereo and several of the firms who make tape decks and separate amplifiers can provide stereo recording with the proper selection of equipment. Wilcox-Gay has just announced a recording pre-amplifier that will enable the owner of one of their Sterecordio machines to convert to stereo recording. Other than the Magnecordette mentioned above all the other stereo recorders are from \$500 up. We think it is time that the engineers were turned loose on designing simple and relatively inexpensive stereo recorders. FLASH! Pentron will have a stereo recorder in late summer.

* * * * *

DESPITE RECESSION TALK forecasts for tape sales and equipment sales are rosy. Charles C. Harper, new national sales manager for Bel Canto forecasts an 8 million dollar stereo tape market for next year. Frank Rogers, of Reeves Soundcraft, in making a presentation to some of their outstanding distributors at the parts show predicted a 100 million dollar market for magnetic tape within the next five years. Recorder sales for last year topped 500,000 and the estimate for next year is 600,000 units.

* * * * *

RIGHT IN OUR OWN BACKYARD, almost, the 82nd running of the famous Preakness was videotaped by the Columbia Broadcasting System and immediately rebroadcast after the race was finished. Picture quality was as good as the original transmission and the sports commentator was able to point out the features of the race that were important—and without any delay for processing, as is the case with film. This feature alone can make a big difference in the quality of sport broadcasts in being able to visually recap the important points immediately after the event.

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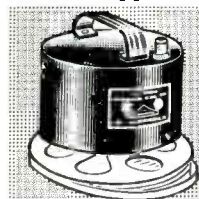
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TAPES TO THE EDITOR

When sending tapes to the editor please use the 3" reel and indicate the speed at which it was recorded and whether it is dual or single track. We will listen to your tape, make notes from it for use in this column and then reply on your tape. Please keep tapes reasonably brief.

If you do not own a recorder, a letter will be acceptable. Address tapes or letters to: The Editor, Hi-Fi TAPE RECORDING, Severna Park, Md.

To the Editor:

Might I compliment you on your Shop or Swap column. I like it and hope to have the privilege of taking advantage of it in the near future. I have only been in this "hi-fi bug" business less than a year and am not well acquainted with the technical goings on of it yet. Maybe through subscribing to your magazine and by exchanging tapes with others I might be able to comprehend this business in time.

To date my equipment consists of the Revere, 2 speed tape recorder, T-1100; Ampex stereo playback and monaural recorder; Garrard record changer; Rek-O-Kut turntable with Audax and Gray arms using Fairchild and G. E. cartridges; Bell 2200C, 20 watt amplifier; Economy, 30 watt amplifier; Electro-Voice SP-12 and T-35 speakers in Klipsch corner cabinet. I'm interested in liturgical music, Gregorian chants, Eastern Orthodox chants, etc., as well as classical music of the masters. If you know anyone with similar appreciation and interest I would appreciate knowing of them so I could correspond with them via letter and tape. — (Rev.) W. Francis Forbes, SSB, "Crabapple Lane," P. O. Box 233, Monticello, Florida.

To the Editor:

I wish to state my thanks for the fine magazine you people publish. Through it, my knowledge and enjoyment of my recorder have increased one-hundred fold. The only fault I can find with it is that it is so interesting I read it in one sitting.

I do wish you would have more reviews of tapes. I find the reviews you now feature excellent and they are a great help in the purchase of my tapes. Keep the magazine coming.—R. Montecalvo, North Providence, R. I.

To the Editor:

I have read with interest the article by Bart Pierson which appeared in your April issue.

The comments contained in this article are a clear statement of some of my own experiences as a recent tape fan.

I acquired, more or less by chance, a recorder which has good recording characteristics, an adequate output, but a poor speaker system. I reached the point where I wanted better tonal reproduction and volume than the integral speaker system was able to deliver, and yet I was not willing to spend the money necessary to equip my set-up with a good external speaker.

I had finally reached the point where I was ready to buy a decent speaker and I approached a friend who seemed to be in

the best position to give me the advice as to speaker specifications which would best serve my purpose. This friend has made a study of radio and television and he recommended that I find an old console radio of good manufacture and use this as the basis for a sound system. He finally found me a set in good condition, complete with a 14" PM speaker and a high-output push-pull circuit. The set, cleaned up and adjusted, cost me \$12.50; or considerably less than the cost of a speaker alone. I now keep this old radio in my den, and by using a Jack connected to the volume control I am able to get the improved tone of the 14" speaker together with enough volume to handle anything I care to do.

Since the external speaker jack of the recorder is a shorting one, this also enables me to put records on tape by means of a conventional record playing attachment, and at the same time monitor the recording at any volume level I care to. This is an advantage when recording while others are watching television or otherwise engaged in any activity where the speaker volume of the recorder itself at recording level would be objectionable.

It would take several pages to list here the uses to which I have put the combination listed above, and my 6-year-old girl has also had endless enjoyment from this same "obsolete" radio by using it as an amplifier for her three speed record playing attachment which we originally purchased for her to use with a table radio of questionable tone quality.

I thought others of the tape recordists who want to get maximum results from portable equipment with a minimum of cash outlay might be interested in the potential of this combination.—F. B. Hart, Columbus, Ohio.

To the Editor:

I have read many articles explaining stereo sound. In a few of these articles I read that it would be pointless for a person with one ear incapacitated to purchase stereo equipment, even a waste of money to do so. This set me to thinking; is that person with only one good listening ear really wasting his money? It would seem to me that the room would be filled with sound, and that any person with one or two ears could feel the effect of realism that stereo has. That person would feel the effect more so when he would walk around the room. This is entirely theory, but is it true or not? I cannot truly test this out, but it seems plausible to me that any person capable of hearing will benefit from the addition of stereo to his set. I would appreciate any comments.—R. J., Williamstown, Mass.

TAPE CLUB NEWS

The United Recording Club NewsLetter has now been replaced by the Microphone, which has become the official publication of the United Recording Club. Articles appearing in the Microphone will include news of the club, news from members, and representatives, articles of educational value, and news from individual industries. Good luck with this step forward, URC.

American Tape Exchange member, Chet Sherksnas, must fulfill his military obligation and is therefore unable to continue recording his favorite radio program "X Minus 1" on tape (over NBC). He will furnish all tape and cover expenses if someone will come forth and offer his or her services in continuing this activity. How about it, ATE members?

Sightless members of the British Amateur Tape Recording Society consider tape recording and the club's activities along this line to be a boon to them. Why—because braille publications only cover a limited field, and since the British Tape Recording magazine is not published in braille, each month it is read onto tape for blind members. Also, a tape can be played back repeatedly, and these members can listen to the magazine as often as they wish just as the sighted folks can read it as often as they like. Then too, while some can read braille quickly, others are very slow and in some cases cannot read it at all. Blind members are now able to have "pen friends" all over the world.

For its blind members, in some cases, the club tapes specific subjects, but a large number of tapes of a general interest are circulated as well. If any member or group can supply 5" reels, recorded at 3¾ ips, on any topic, which the club can then copy, they are urged to do so. These are then

loaned to blind members. Send any such tapes to Bill Rawle, Secretary B-S-, 12 Glenfield Road, Darlington, County Durham.

Since Jim Greene, executive secretary of Tape-Respondents, International, accepted service on the Tape Recording Exchange Committee of the People-to-People Program, every new member of TRI has received a personal message from Jim explaining PPP and urging them to make overseas contacts for the purpose of assisting people in other lands to better understand America. President Eisenhower's speech opening the PPP, furnished to Jim by Harry Matthews, chairman of the committee, is available to any member of TRI upon request to Jim. Also, the People-to-People Program has been explained in a new manual being distributed to TRI membership. Nice going Jim.

Voicespondent Leonard Decker has been re-elected for another two-year term as Deputy for the Pacific District of the club.

Also, the Canadian members have elected Jacques Cimon to serve as their representative on the Club's Board of Advisors for the next two years following the resignation of former DD John Berridge to get married.

Potomac District Deputy Bob Crouse has established a Welcoming Committee for helping introduce new VS-ers to the pleasures of the tape recording hobby. The committee is composed of members who would like to exchange a few tapes, on a temporary basis, with any new member who wants someone to talk to right away. Members of the committee will help such members to get rolling without their having to select a name and write first for permission. Other District Deputies are invited to refer their new members to the people on this Welcoming Committee. The names of those on this committee were published in a recent copy of The Voicespondent.

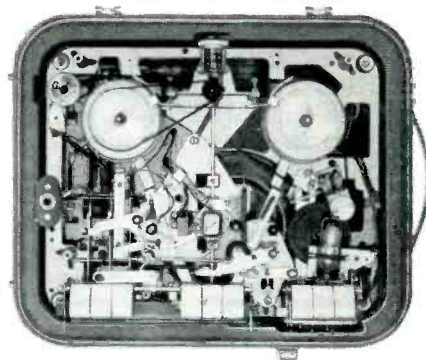
United Recording Club member Richard Drost has a collection of over 130 complete "Met" Opera Radio Broadcasts on tape and disc. He is anxious to find someone with other such broadcasts.

Also, club member Joseph Savage is interested in meeting other recording enthusiasts who have been taping air shots from TV and radio in the last 10 or 15 years, particularly personalities from the legitimate stage.

An Australian tape bug is interested in contacting some tape club members. He would like to discuss and obtain literature on a suitable recorder for general work. He would later undertake recordings in Australia for fellow tape bugs and interested persons. Anyone interested in contacting him is invited to write to Edwin P. Brown, 149 Sampson Road, Elizabeth, South Australia.

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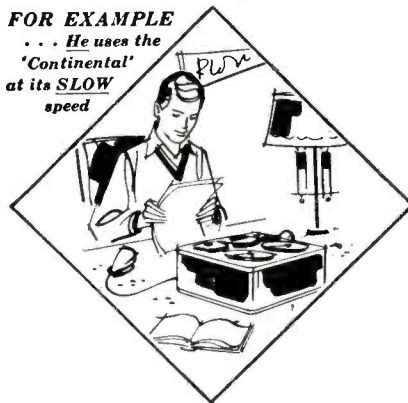


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TEEN TAPERS

BY JERRY HEISLER



WELL we finally made it—we got our stereo tape recorder. Thanks to Mr. Bob Tidrick of the Dactron corporation, my TDC Stereotone was converted to a unit that will play or record either stacked or staggered tape. The whole deal is very simple too. The heads in my machine were removed and replaced with two stacked heads.

By plugging in the appropriate portion of each head I can choose whatever arrangement I want. The conversion shouldn't be a very difficult project for those of you who are handy with the soldering iron. If you would like information on how to do this let us know, and we'll see if we can't get the dope for you. We now have a chance to try stereo recording once we get hold of another recording amplifier.

Now that we have such a unit what can we do with it? Many ideas came to mind and I thought I'd share them with you in case you have a yen to do some informal recording.

One thing that came to mind was a gimmick we tried at the hi-fi show in Chicago several years ago. We put on a display involving stereo with the same person holding a two way conversation. The questions were recorded on the left track and the replies on the right, and both in the same voice. The effect was good and the job quite easy. You might like this for a party game.

Of course music is of interest to all teens and so we'd like to try our hand at making some tapes of some friends who "jam" once and awhile.

Sound effects are a fascinating challenge. "Sound in the Round" by Concertapes, is an example of what can be done with those.

So here then we have a few ideas to keep us busy in the months to come and we'll pass along the results to you. If any of you do anything, be sure to let us hear about it.

This column has always made it a practice to search out low priced items of interest to teen recordists. We have tried to find quality items at a low price because money is important to young people. Along this line we have word that the Nortronics Company, is coming out with a couple of new amplifiers that have really interested me. These amplifiers, coming out June 10th, will really fill a teen need. One is a single track record amplifier to serve as the other half of a stereo unit.

The amplifiers, featuring a VU meter, will sell for only \$49.50. And in addition, Nortronics has a 2 watt playback amplifier selling for \$39.50. With these two units a stereo conversion could be made for under \$100 and this is a set-up so you can MAKE as well as play stereo tapes. We're going to check into this and you can look for an article in the next few months.

For you kit builders we noticed that the Heath Company is coming out with a kit to

make a recording unit. The tape deck is complete, but the amplifiers need to be built. Heath also has a kit coming out soon which builds a tape rewinder. It is simply the motor mechanism without any heads, enabling quick rewinding of tapes. Always something new if you keep your ears open.

Pictures - pictures - pictures. We want pictures of teens doing things with tape recorders. Why not take some snaps next time you use your recorder, and send in one or two. Remember that this column serves two purposes. First we help you to enjoy your recorder, but second, we want to help others serve you. If you tell and show us what you are doing, we can pass the information on to people who want to know what your needs and desires are. And the one field where we can promise you results is recorded tape. The manufacturers have been convinced a long time ago that teens buy the most records. If you let us know your desires you can be sure that tapes will be appearing with the type of music you like. So let us know and send us pictures.

We had some inquiries regarding making recordings of telephone conversations so we thought we'd take a minute to mention a bit about it. First of all, the best way to record a phone conversation is to use an induction coil. These are available in forms that attach directly to your telephone and no microphone is required, since the coil plugs directly into the recorder. Phone recordings can be a lot of fun if used with discretion. It is best to advise the party that you are going to record the conversation and never attempt to use the recording to embarrass anyone. Phone recordings made without the use of a beep signal are unlawful, so if you are planning on using a phone recording for some special purpose other than for fun you had better contact the telephone company. Remember too, that it is illegal to connect any wires to your phone line so be sure and use the induction coil which merely attaches to the receiver or serves as a base for the receiver. These devices are available for about \$5.

By setting up the phone recording device you might arrange for people to leave messages. This could not be done automatically, but if you were to answer the phone for your mother and she wasn't home, you could plug in the recorder and have the person leave a personal message. The uses of this type of device are very wide. The phone company has a unit for rent that will record automatically.

So let's hear from you about the interesting uses for recorders that you'll pass along to others.

And just one last word of advice for those of you who are going to summer camp either as campers or counselors—Take your recorder with you. You'll have never to be forgotten memories as I did last summer.

TAPE IN EDUCATION

BY JOHN J. GRADY, JR.



WITH mixed feelings of admiration and sincere exultation these lines are intended to pay tribute to a teacher, an instructor of music, who undoubtedly qualifies for first place on that list of Praise-Be-To-You Inventive Educators, so often referred to by Tape In Education, because of constructive applications of magnetic tape to classroom routine. Every teacher could well tender a salute to a magnetic recording pioneer from their own ranks—Howard M. Van Sickle, of Mankato State College, Mankato, Minnesota.

Way back in 1946—and according to Mark Mooney's Chronology Of Magnetic Recording, 1946 really is way, WAY back—Howard Van Sickle, while making a vacation trip from Illinois to Nebraska, visited a number of radio stations seeking practical information about a communication process termed wire recording. At Station WOW, in Omaha, an old schoolmate, who had just returned from a Radio Trades Show, in Chicago, was enthusiastic about a recorder which was demonstrated at the show. On it, sound recording, and immediate playback, was accomplished by the use of a processed paper tape. The fact that Station WOW had ordered a couple of the tape recorders was a convincer in making Mr. Van Sickle a pioneer in educational tape recording. His first tape recorder was delivered to him early in January, 1947. But there was no tape with it. Just an apology. That's when the first known Inventive Educator among magnetic recordists got into momentum. Even without a reel of tape, he decided to stage a demonstration with the new recorder. That demonstration took place in Springfield, Illinois. Aided by the dealer, through whom the recorder was delivered, some of the first splicing of magnetic tapes was accomplished. Ribbon strips were cut from some oxide coated paper discs and spliced into a short tape. Mirabile dictu, it worked. Tape In Education definitely is prejudiced in favor of Howard Van Sickle as the original trail breaker in the rapidly expanding band of Inventive Educators in the magnetic recording field. Read on, then you'll understand why.

According to Chronology Of Magnetic Recording, in 1946 there was no established market production of magnetic tape. Such tapes as were developed rated as experimental products. In 1947, however, there were production runs of black oxide paper base tapes. And early in that year, Mr. Van Sickle obtained a single reel of this tape. For weeks, only this one reel was used during his music classes. This lonely orphan thousand foot reel was recorded and rerecorded dozens of times. This was the time during which the dedicated inventive educator pioneered in devising usages for magnetic tape so that music could

be taught more efficiently in the schools.

Fortunately, from a historical standpoint, there is a published record of the educational innovations with magnetic tape developed by Mr. Van Sickle for application to modern music instruction. Someday, in the Museum of Magnetic Recording, the November-December, 1947, issue of EDUCATIONAL MUSIC MAGAZINE should have an honored spot among the relics of the pioneer days of tape recording. The magazine should be opened at page 43. There's an article beginning on that page, titled, *We're Using A Third Ear*. Undoubtedly, it's the first article descriptive of the proven advantages of educational magnetic recording. The article carries the by-line, Howard M. Van Sickle, Pana Township High School, Pana, Illinois. Remember, the article was written in the early months of 1947, and conveys the information that the tape recorder was ordered in August, 1946, after the manager of radio station, WOW, in Omaha, had sustained the belief of the author, and recommended, that magnetic recording had extensive classroom possibilities.

The article, *We're Using A Third Ear*, contains a gracious paragraph that it's a privilege to repeat here. There's the hope it may secure the attention of some of the parents in Pana, Illinois, it originally was intended for. The intention is to add the thanks of appreciative magnetic recording fans, and to assure them that as members of the Music Patrons Club, way back in 1847, they were the first to sponsor, and the first to provide for their children the great advantages of educational magnetic recording. To them, in sincere appreciation, we repeat: "We are using the recorder to inform the parents, who are members of our Music Patrons Club, of the musical activity that takes place in the classroom. Parents are gaining a better appreciation of the school music work through hearing the "sound pictures" we take of their children's work. It is the fine group of parents in the Music Patrons Club who made it possible for our school to obtain the tape recorder."

To Dr. Van Sickle, of Mankato State College, ardent exponent of educational Audio, executive of American and Minnesota String Teachers Associations, consultant and producer of tape recordings for musical instrument manufacturers, and FIRST, again in the adaptation of Stereo to music instruction, Tape In Education, in behalf of all our readers thanks you, and assures you that your premier spot in educational magnetic recording is safe. We hope for your permission to relate your initiation of stereo into music instruction in an early issue of HI-FI TAPE RECORDING.

**Does STEREO
make you DELEREO?**

Unless hearing your favorite composer in stereophonic sound releases a deliriously marvelous feeling within you . . . unless it conjures up vivid pictures in your mind's eye . . . unless it penetrates your "inner" being . . . then you are not getting the full impact of stereo!

To feel the gigantic realism of stereo, you must hear it on the finest equipment possible . . . for stereo *demand*s the finest. Are your stereo tapes played on the **Ferrograph** Tape Recorder, considered the world's best by many professionals? And the new stereo disc system* demands the very highest quality turntable available . . . the **Connoisseur**, of course . . . to breathe its music through **VITAVOX DU120 Duplex Coaxial Loudspeakers** for a smooth extended frequency response and broad even acoustic distribution. Yes, for the brilliance of stereo you *need* good equipment!

*watch for announcement of Connoisseur stereo cartridge

ERCONA CORPORATION (Electronic Division)
16 West 46 St., Dept. 73, New York 36, N. Y.
In Canada, write Astral Electric Company Limited, 44 Danforth Road, Toronto 13.



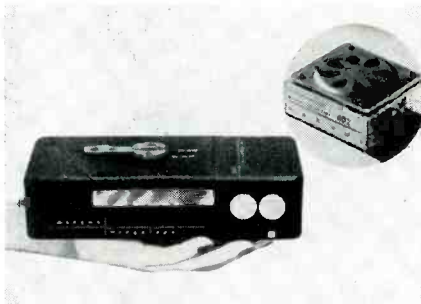
NEW PRODUCTS

REVERE STEREO



With the introduction of the T-1120, Revere Camera Company offers an inline stereo machine. The system enables recording and playing back monaurally on the upper channel; the lower channel is designed to plug directly into the phono input of phonograph, radio or television receivers. No auxiliary pre-amplifier is necessary as the pre-amp is already built-in. Other features include: "Balanced-Tone" (loudness control); real portability with molded glass and steel case; single knob control; precision index counter; public address system; input switches automatically for mike or phono; and tape speeds of $3\frac{3}{4}$ and $7\frac{1}{2}$ ips. Frequency response is 75 to 13,000 cps, signal to noise ratio is greater than 48 db; and wow and flutter is less than 0.3%. This machine is priced at \$199.50. Contact Revere Camera Company, 320 East 21st St., Chicago, Illinois, for details.

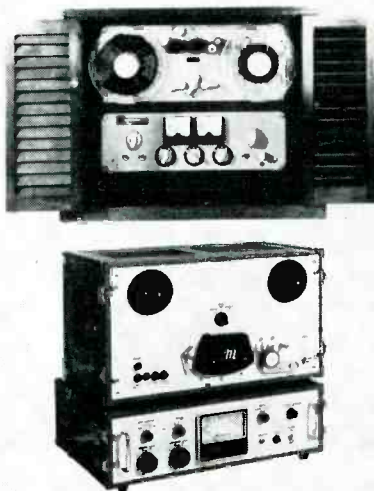
MIDGETAPE 300



Mohawk Business Machines Corporation has announced the development of a new transistorized recorder, the Midgetape #300. This is operated by four transistors instead of vacuum tubes. There is extra space for a tiny, self-contained loudspeaker, which is available as optional equipment. The tape can be played back through the microphone. Other features include: a visual battery life indicator which goes off

when the battery has one hour's life left as a warning to change the battery; cartridge loaded tape which eliminates difficult tape handling and multiple tape reels; instant warm-up—a governor-controlled motor which insures constant recording speed during decreasing battery life; and a visual elapsed recording time indicator. The 300 lists at \$249.50. Write to Dept. AR, Mohawk Business Machines Corp., 944 Halsey Street, Brooklyn 33, N.Y. for full details.

NEW MAGNECORDS

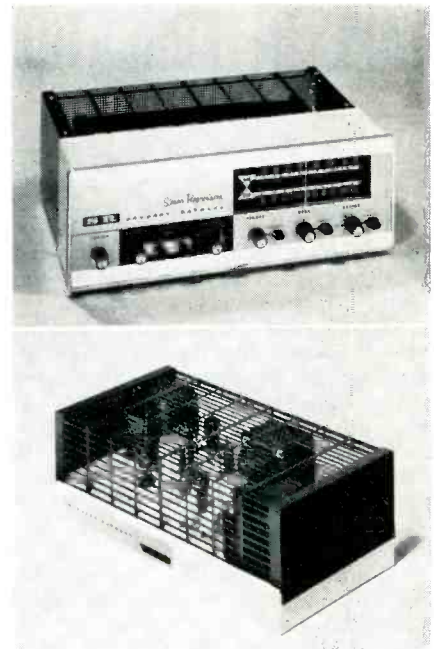


The Magnecord Division of Midwestern Instruments, Inc., Tulsa, Oklahoma, has announced two new recording instruments, the Stereo Magnecordette (top) and the P-75 Editor II (bottom).

Features of the Magnecordette include: stacked inline stereo or monaural half track; $3\frac{3}{4}$ and $7\frac{1}{2}$ ips speeds; frequency response 40—15,000 cps plus or minus 2 db at 15 ips; signal-to-noise ratio down more than 48 db from the 3% third harmonic distortion point; Record Amplifier Inputs: two high impedance microphone inputs; auxiliary (tuner, phono, tape, etc.); Playback Outputs: cathode followers, to be loaded with not less than 20,000 ohms, one volt output from normal recording level (OVU); meter reads record level, playback level channels A and B; custom cases and cabinets are optional at a nominal extra cost. This machine retails for approximately \$395.

Distinguishing characteristics of the P-75 Editor II include: outboard bearing: on tape drive capstan; tape speeds of $7\frac{1}{2}$ and 15 ips; direct motor capstan tape drive; reel size $10\frac{1}{2}$ " NAB and 7"; push-button controls; 3 heads—erase, record, playback; fail-safe brakes; tape break automatic shut-off; frequency response 40 to 15,000 cps, plus or minus 2 db at 15 ipc; signal-to-noise ratio 55 db based upon 3% total harmonic distortion point; and flutter and wow at 15 ips less than 0.2%. For complete details, and price of the P-75 Editor II, write to the manufacturer.

STEREO COMPONENTS

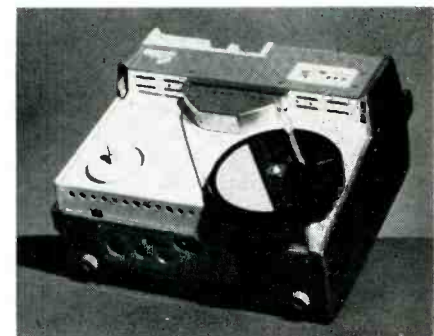


The Sargent-Raymont Co. has announced the addition of two new stereo units to its line. One is the SR-380, FM-AM tuner with stereo pre-amp tone control (top) and the other is the SR-534, 34 watt basic stereo amplifier (bottom). Some features of the SR-380 include: stereo (dual) inputs for tape heads with 3 positions of equalization for 15 (NARTV), $7\frac{1}{2}$ and $3\frac{3}{4}$ ips, phono cartridge (both magnetic and ceramic), tape recorder, and space for possible future application; a stable FM sensitivity of 3 uv for 20 db quieting; and push-button operated rumble and scratch filters.

Some features of the SR-534 include: 17 watts output each section, 34 watts output for combined dual channel for monaural use; less than 1% intermodulation distortion at rated output; less than 0.5% I.M. at 10 watts output; frequency response of plus or minus 0.5 db, 10 to 50,000 cps at 1 watt.

For complete information on these new stereo reproducers, a four-page brochure is available by writing to the Sargent-Raymont Co., 4926 E. 12th St., Oakland, Calif.

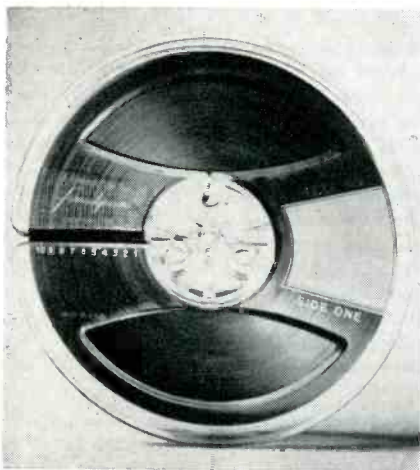
AUDIO VENDOR



Introduction of a new long playing Audio Vendor, a recorder accessory that allows automatic repetition of recorded messages and music, has been announced by Cousino, Inc., 2106 Ashland Avenue, To-

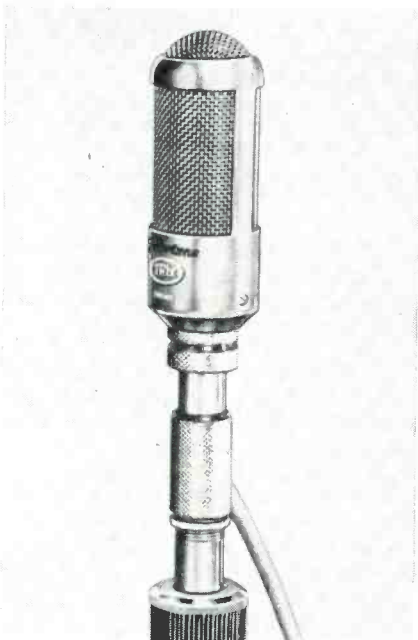
ledo, Ohio. Designated Model ULP-110, the new model can be used on nearly any tape recorder. Playing time of the new tape repeater is approximately one hour with the Moebius Loop. The company is offering this item for \$39.50. For additional information, contact Cousino.

NEW REEL



A unique 7" reel, the V-Slot Selection-Finder Reel, has been announced by Ferrodynamics Corporation, Lodi, New Jersey. This is designed to add to the convenience of recording and playing back tapes. It is constructed with a V-slot for quick threading. Permanent selection finder numbers are molded along the edges of this slot permitting rapid location of the desired selection when playing back the tape. The reel is made of opaque slote gray plastic and matches the permanent plastic container that protects all Sonoram tapes. The reel has ample space for identification. Contact the manufacturer for additional information.

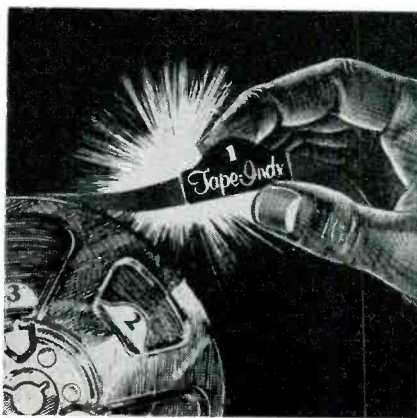
FEN-TONE MIKE



The Fen-tone Corporation, 106 5th Ave., N.Y.C. has announced a new miniature bi-directional ribbon velocity microphone

called the "Tix Sixty Special." The unit is comprised of a triple horse-shoe magnet supporting a relatively long corrugated limp aluminum ribbon which is encircled with 4 breath shields. The frequency response is flat plus or minus 2 db, 50 to 12 kc. and the output at 50 ohms referred to hi-Z is—58 db. This ruggedly shock-mounted microphone has a front to back sensitivity gradient above 1 kc. on the order of 2 db/octave. Net price is \$96.50 with 18 feet of balanced shield cable. For complete details, write the Fen-tone Corporation, above address.

TAPE INDX



The Darel Company, 520 Fifth Avenue, New York 26, N. Y., has introduced a new product, known as Tape-Indx, for logging tapes. You simply press a Tape-Indx tab to the exact spot you want to identify for future use. These tabs are numbered and colored and can be removed.

IRISH 400 TAPE



ORRadio Industries, Inc., Shamrock Circle, Opelika, Alabama, has introduced a new "fortified" double-play tape. It has a catalog number of 400, and it is made on DuPont's Mylar polyester base, specially reinforced for sinewy strength. According to the manufacturer, this new tape is much more resistant to stretching, and it has the added advantage of the Irish Ferro-Sheen process which bonds the oxide coating on to the base so firmly it won't come off. The price of this new tape is \$11.95 for a 2400-ft. reel. Write to ORRadio for additional information.



Joseph Szigeti
tapes his own recordings on

irish
BRAND
ferro-sheen
recording
tape

That's not the reason
why you should use

irish
BRAND
ferro-sheen
recording
tape

Here's why you should use

irish
BRAND
ferro-sheen
recording
tape:

It's the best-engineered tape
in the world...

...gives you better highs... better lows... better sound all around! Saves your tape recorder, too—because the **irish FERRO-SHEEN** process results in smoother tape...tape that can't sand down your magnetic heads or shed oxide powder into your machine. Price? Same as ordinary tape!



Available wherever quality tape is sold.
ORRadio Industries, Inc., Opelika, Alabama
Export: Morhan Exporting Corp., New York, N. Y.
Canada: Atlas Radio Corp., Ltd., Toronto, Ontario

NEW EDITION

complete catalogue of

STEREO MUSIC

Lists more than 1100 Stereo Tapes
—all available stereo discs. 50c a
copy—\$2.00 a year

Mooney-Rowan Publications

Severna Park, Md.

HAVE FUN AT YOUR NEXT PARTY

Tape record this old fashioned melo-
drama and play it back. Good for a hun-
dred laughs. Five parts, three male, two
female . . . and a donkey. Full directions
for sound effects. Complete set of scripts
(six copies) as presented on air—only \$2.95
postpaid.

HI-FI TAPE RECORDING
Severna Park, Md.

DO YOU HAVE TWO FRIENDS . . .

. . . who are interested in recording
and who would enjoy receiving a
FREE sample copy of

Hi-Fi TAPE RECORDING Magazine?

If you do, just send us the names on
a postcard or use the coupon below.

Hi-Fi TAPE RECORDING
Severna Park, Md.

Please send a copy of Hi-Fi Tape
Recording without charge to:

Name

Address

City Zone State

Name

Address

City Zone State

Your Name

Address

City Zone State

QUESTIONS & ANSWERS

Questions for this department may be sent on tape or by means of a postcard or letter. Please address your queries to, "Questions and Answers," HI-FI TAPE RECORDING, Severna Park, Maryland. The most interesting and widely applicable questions will be used in this department and all inquiries will receive a tape or letter reply.

Q—I wonder if you could help me. I'm new at this tape recording hobby. I bought a Pentron Hi-Fi Stereo NL35 Tape Recorder. What I want to know is how this stereophonic sound works. I subscribe to the Complete Catalogue of Stereo Music, and on page one it gave me some information. But what I really want to know is if you can get stereo music without the tape or is it only the tape that gives stereo music?

On my Pentron there is a 10 foot cord coming out the back. What must, or what do I do with that cord—what is it for? The instructions I received with the recorder don't give very much. Somebody said you must plug the cord into the TV or radio output. But I looked at the TV and radio and I have no outlet.

I don't think I'm making much sense to you. Maybe you could refer me to somebody else. It's very important to me.—A. T., Elyria, Ohio.

A—The cord to which you refer supplies the second channel sound and must be connected to an amplifier and speaker or to a radio or TV set amplifier for you to hear the stereo sound. If your radio or TV does not have a phono input jack then your serviceman can install one for a few dollars. To hear stereo you must have two sources of sound, one for each ear. In your case, the recorder itself will supply one channel, the radio, TV or another amplifier and speaker the other.

Q—I am an ardent fan of our magazine TAPE RECORDING, a subscriber, and I hardly miss reading a printed word in each issue.

I have a few questions, and wonder if you would be so good as to answer them in Questions and Answers.

#1—I have a Bell & Howell tape recorder. How come I never see any advertisements regarding this make?

#2—What is the real meaning of stacked or staggered heads?

#3—What is the meaning of "dual tracks"?

#4—What is the meaning of "full track," and "binaural recordings"?

#5—What is the meaning of "monaural"?

#6—What is the meaning of "stereophonic"?

I hope you see fit to answer these questions at your earliest convenience.—A. E. S., Bovill, Idaho.

A—#1. There you have us—they are still making them and selling them too. Monaural sound is that reproduced from one sound channel on a tape or a single groove on a disc. Stereo sound is played back from two channels and has been recorded with two

microphones, one to represent the hearing of each ear. Two channels are employed on the tape or separate signals are impressed on each side of a single groove in a disc. Dual track means that there are two sound tracks on a tape, one along the top edge and one along the bottom. In stereo sound, both are used at the same time. Full track means the tape is recorded the full width of the tape. A stacked head is a stereo head which is really two heads in one, one mounted above the other to play both tracks at once. Staggered heads are also for stereo but are mounted approximately 1¼ inches apart.

Q—I was wondering if you could possibly help me with my problem. Every so often there is a loud, shrill noise, such as a television test pattern sound, on my tapes. This occurs at anyplace on the reel. I could play the tape one time and it would be all right, then the next time I play it this noise would blot out the recording. I don't use cheap tape. The tape I use is from a leading manufacturer of recording tape. I store my tapes on a piano and was wondering if this had anything to do with it. Please help me before my tapes are ruined. Thank you.

P.S. I greatly enjoy your magazine and wish you could have twice as many pages.—F. S., Pontiac, Illinois.

A—You probably are getting tape squeal from glazed pressure pads on your recorder. As the pressure pad ages it becomes loaded with dirt and other substances picked up from the tape. This finally becomes a hard glaze and the squeal is just like that of a hard piece of chalk on a blackboard. To eliminate it, replace the pressure pads with new ones or clean and brush up the ones you have. Storing the tapes atop the piano would have no effect on them whatever.

Q—I recently installed a #8905 V-M stacked and staggered conversion on my model 711 V-M tape recorder. It seems to play both stacked and staggered tape very well.

The difficulty I am having is in the recording or when I am recording a radio program, in order to stop the advertising I use the pause button, and while this is on I give the right hand reel three or four turns to have a few seconds in between the musical selections. I find when I play the tape back I have picked up the voice of the announcer, and it sounds like a series of squeaks, etc. Like when you tape a program at 3¾ ips and then play it back at 7½ ips.

Now there were two things that I didn't do and I don't know whether it would have any bearing on this or not. I didn't discon-

nect the hum bucking control from lug #8 of head socket, and install a short wire from lug #8 of head socket to lug #9 of the record switch. Also, I didn't install a jumper from pin #2 of speaker plug to the head of the rivet that mounts the terminal lugs on the speakers. I didn't bother the power transformer, I didn't seem to have much hum. I hope you can give me some advice that will clear this matter up. Thanks very much.—R. W. C., Columbus, Ohio.

A—The hookup in the recorder has nothing to do with this. The pause button merely lifts the capstan roller away from the tape so that the tape motion is stopped, however, the recording amplifier is still putting a signal into the head, even if the tape is not moving. Thus, when you wind the tape past the head by hand, you will put a garbled signal on it which will be audible on playback. We would suggest you depress the pause button, then the stop button, at which time you can move the tape, put the recorder back in record and when the time comes to pick up the program, release the pause button. This will eliminate the noise between selections.

Q—I have a Webcor Royal Coronet with 3 speakers, 8 watts power output, and a frequency range of 50 to 12,000 cps. I use it mainly to record music and need a microphone in those cases where an input-output cord cannot be used. With such a large number of microphones on the market I am lost as to which one would best serve my purposes. A top notch professional one is probably not needed, yet I do want one that will make full use of the range of my recorder. Would you recommend several microphones which can be purchased for no more than \$35 to \$40? Any information will be greatly appreciated.

P.S. I have Jack Bayha's "All About Tape On Tape." In it, he mentions improving your recording equipment by getting a good low impedance microphone and a cable transformer. Now, the microphones listed as examples range in price from \$60 to \$80. I've been informed that these are professional type mikes and would not really be needed for home use. Let's hope not, because I built my tuners from Heathkits and am still looking forward to the day when I can increase my speaker system.—L. R., Cleveland, Ohio.

A—The microphones supplied with tape recorders are of average quality and do a good job on voice and music. For finest results, however, a better mike is a good investment. The higher priced mikes have flatter responses and are less subject to heat and shock than the ordinary crystal mikes. A medium priced dynamic mike of any of the well-known makes should be satisfactory. These list in the \$30 to \$40 range.

Low impedance microphones were advised because of the fact that you can be almost independent of cable length with them. With a high impedance mike, cable lengths of 25 feet are about maximum without losing quality in the recording. With low impedance mikes you can run 250 feet and get a good signal. Of course, to match

the input on the recorder you would need the cable transformer mentioned.

Q—Many times I have heard the words "it can't be done" in regard to tape practices. But, recently you have shown that "it can be done." For example, copying on one machine (Jan. '58 issue).

Here is my thought and problem. I feel that there is, or can be devised, a method of adapting a monaural record, stereo playback unit to stereo record using only an additional preamp and maybe an additional head, plus some work.

After putting three hundred into my present system, I don't want to put out an additional five or six hundred to record stereo. My present system I want to keep because of its portability. I hope that you or some of your readers have some ideas about this. My dealer just says "it can't be done." I say, somehow, it can be done.

P.S. Hi-Fi Tape Recording is it—the best.—G. R., Garfield, N. J.

A—If you want to do a bit of rewiring, you can record stereo on your present machine. What you must do is disconnect the leads going to the second head from the playback preamp and feed recording current in instead, either from a recording amplifier (you must furnish bias current) or from another recorder. If you have a stacked head you may get some crosstalk, staggered heads work fine. You will have to use fresh tape or bulk erase the tape as you will not have an erase head on the lower track.

RCA Sound Tape



... on "Load-Easy" reels
for fast
tape threading!

Now available wherever superior-quality magnetic tape is sold. On 5" and 7" Load-Easy Reels for fast, simplified threading. Excellent for low-noise, extended-range recording and playback!



**RADIO CORPORATION
OF AMERICA**

Electron Tube Division Harrison, N. J.

Announcing—

Tapebook #2

HOW'S YOUR HEARING?

by James M. Laing

Are You Getting The Most Out of Your HI-FI or Stereo?
Can You Understand Speakers? Hear Lyrics Plainly?

Protected hearing is the key to your listening enjoyment.

Hearing is one of your most precious human possessions. It, however, like every other precious possession, requires protective care. Without proper protection your hearing can leave you completely, and without warning.

To properly protect your hearing there are two things you must do: (1.) test your hearing periodically, and (2.) seek early medical guidance as soon as a hearing test indicates a possible hearing loss.

Periodical hearing tests are important because, unlike most other ailments, a hearing loss gives you little positive warning. A hearing loss can creep into your life so gradually that you can be completely unaware of its presence.

Test your hearing . . . and be sure!

To help you check your hearing periodically is the purpose of this "hearing check recording."

TAPE CONTAINS

30 minutes of music by the famous Lenny Herman Orchestra — good for listening or dancing as well as screen testing of hearing. Specially monitored.

33 tone pairs to test musical discrimination

75 word pairs to test speech discrimination

Full 7" 7 1/2 IPS
dual track reel
full direction booklet
Only \$9.95

Postpaid

ASK YOUR DEALER OR ORDER FROM
TAPEBOOK DEPT.
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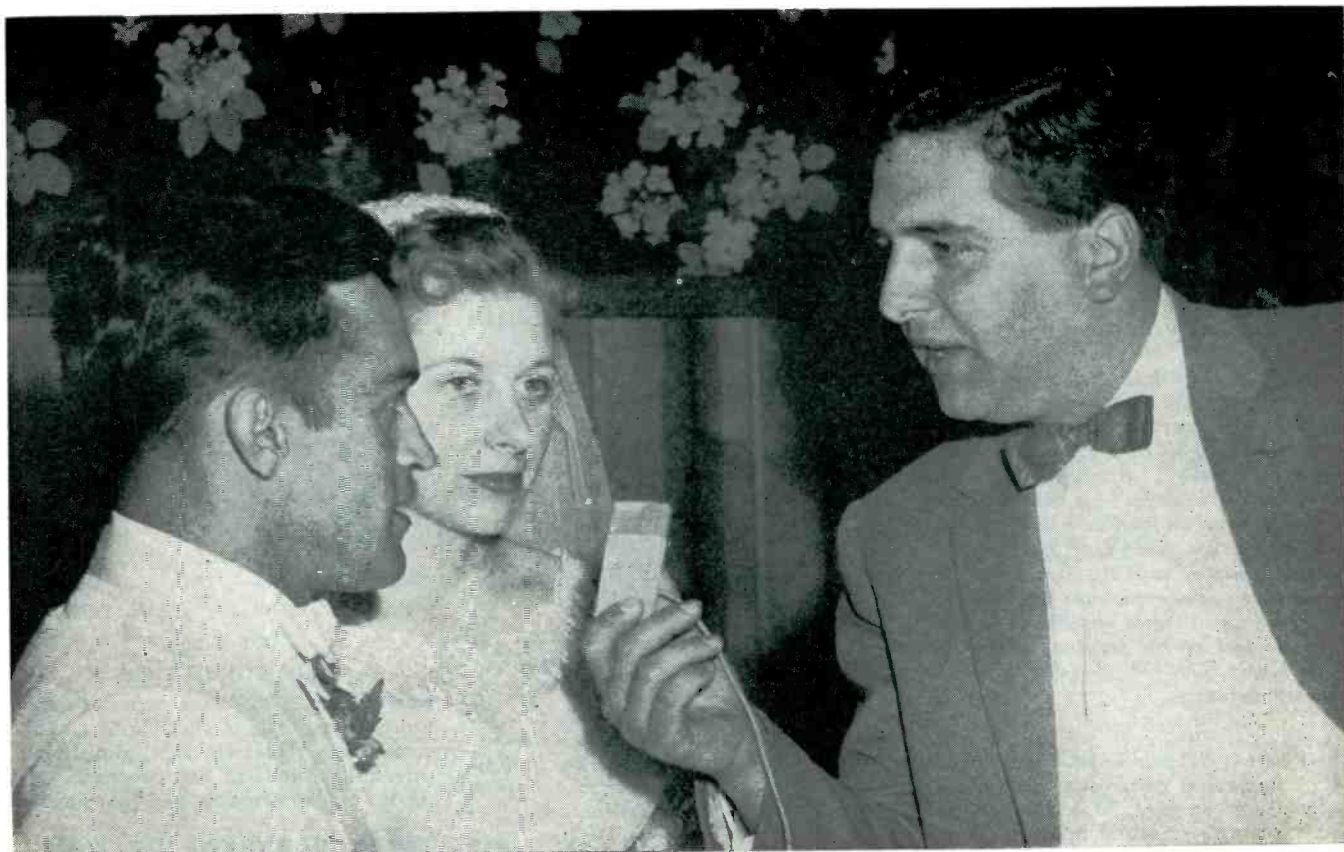


Photo By Donn Studio

Interviews with the bridal couple, both before and after the ceremony, are essential for an interesting, meaningful recording.



Photo by Donn Studio

Arriving on time to record a wedding means coming an hour to forty-five minutes prior to the ceremony.

Do You Tape

This Man

by Marx Cooper,

Exec. Director of Artistic Sound Recording

.... record weddings for fun and profit.

RECORDING weddings can be a nice added source of income for the average recording enthusiast. The fact that so many services center around this important human affair indicates the vast potential this area has for the sound recording medium. A sound recording of this festive occasion including the voices of many of those in attendance makes a priceless irreplaceable gem when played back in successive years. Generally most people do not have tape recorders, so the final product will be in the form of LP discs or 45 rpms. You can have records made at reasonable rates ranging from \$5 to \$10 from any recording studio specializing in cutting discs.

The astute tape recording enthusiast can incorporate his skill to provide a most unique treasure for bridal couples, which is the ability to capture a piece of time and repeat the very words, sounds, actions, and moods of this particular event and can make it possible for the couple and friends, years afterwards, to relive that particular moment of their lives.

The main pieces of equipment that you need besides a tape recorder are a mike stand, a set of earphones, and some microphone extension wire which should not exceed 25 feet in length. Your tape recorder need not necessarily be in the high price range but it should always be in top condition.

Contacts for engagements can come from a variety of sources. One easily accessible source is the society column of the local newspaper. Most of your large important affairs will be listed there and it is a simple task to contact these people. Most of the time you will contact the bride. Sometimes friends may want to present such a recording as a gift. Another way is to team up with a photographer and present a "package" of wedding photos and recording. This combination has infinite possibilities such as making slides with the actual sounds of the wedding. Also with the advent of the "EUMIG" 8 mm projector, it is possible to make sound movies in perfect synchronization having the tape govern the speed of the projector.

A third and excellent source of contacts is provided by leads furnished by the places where the weddings occur. An equitable arrangement can be worked to mutual advantage by the source being entitled to a small percentage of the charge, usually between 10% and 20% depending upon the type of services desired in the recording by the marriage couples.

You should decide on a straight scale of charges which will vary according to the amount of time you have to spend on working and completing the wedding. A number of people from whom we receive tapes regularly have indicated to us that they pro-rate their charges at \$12 per hour. Work for various classes of weddings may vary from three to twelve hours depending upon how polished a product is desired by the wedding party. It is important to note here that while some people do enjoy a substantial income from taping weddings, it would be far better and successful for the novice to enter this field with the idea of expanding and bettering the fascinating hobby of tape recording and making it more creative than in viewing it from the financial aspect. After you have recorded a few weddings for practice, with this idea in mind, you will then have samples of your work plus the experience to command professional prices.

In fact start with the idea that for the first two or three weddings you won't make a cent. View this as merely an

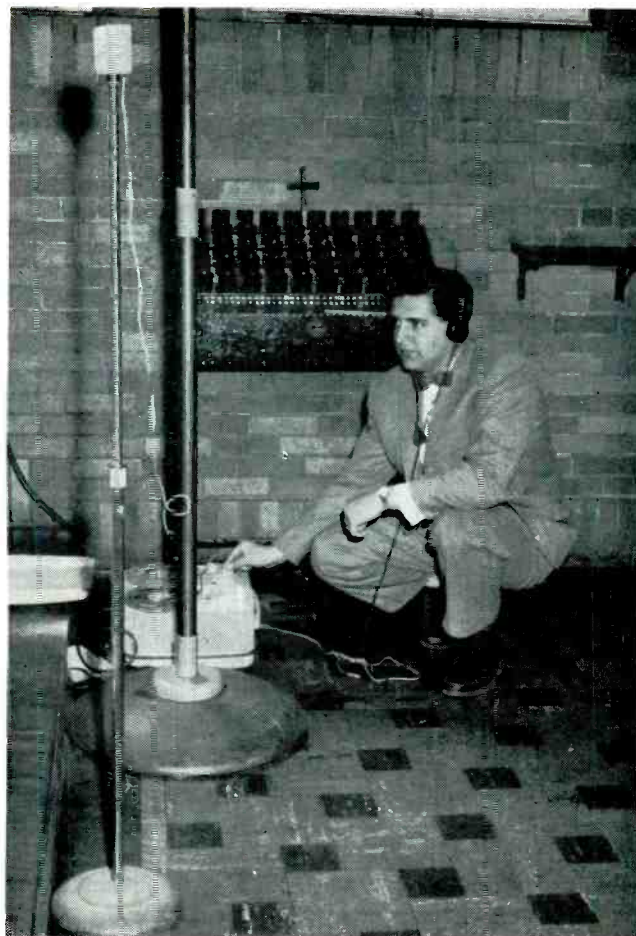
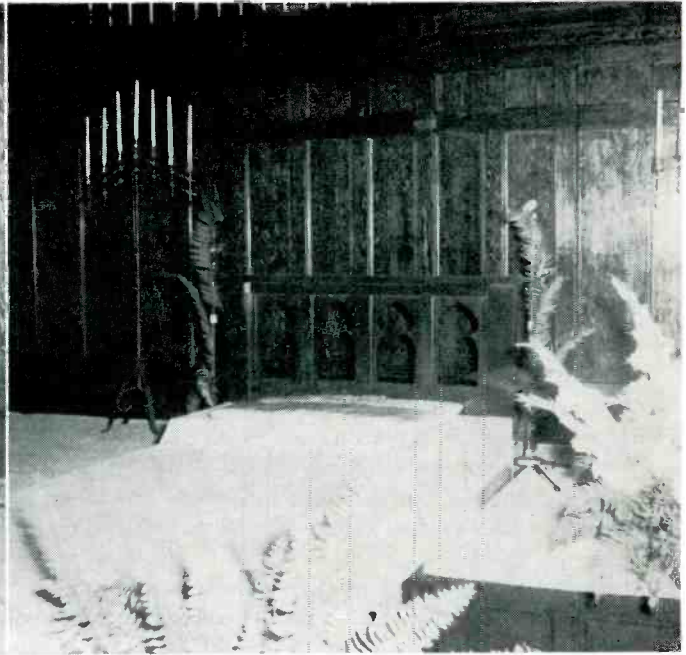
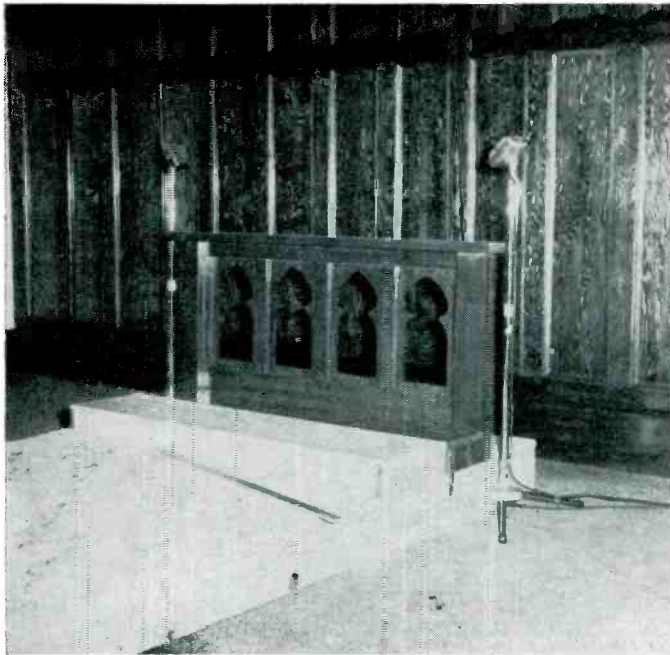


Photo By Donn Studio

Often regulations prevent you from getting closer than thirty feet from the altar. Consequently, your volume will be high and will have to be turned down whenever music or singing is heard. Even so, you should try to avoid changing the volume every few seconds.



Recording equipment can sometimes be set up behind the organ face. This means shorter cable runs and a spot where the proceedings may be watched. An ante-room off to the side is equally good as a spot in which to set up the recording equipment. Two recorders were used to make sure of a satisfactory recording.



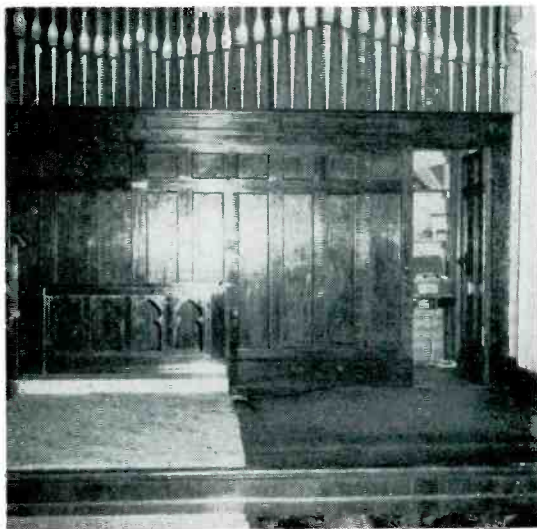
The closer you can locate the mikes to the point where the vows will be taken, the cleaner the recording will be as background noise is reduced in proportion. In this instance two mikes were set up and the florist covered the stands with fronds to hide them.

expanded training course; it will more than pay off in the long run. Even if you were able to convince a person to buy your service at the professional rate you would in all probability not be able to handle unforeseen difficulties which invariably occur at the first few affairs, as well as you would if you had some prior experience. Thus if you happened to spoil the recording or produce one of inferior quality on your first one or two jobs, you could lose valuable recommendations and your service and name would be damaged. More important, such frustrations could engender your discouragement and at this point you might be tempted to give up the whole idea. But if such difficulties did occur during the inservice training period, you would not be held accountable for errors, and yet be free to learn from your mistakes. Of course the wedding couple should be willing

to assume the actual cost in terms of materials such as the tape and your disc costs.

A good recording can be made in an almost infinite number of ways. Your final editing is the creative part of the job. Too often we receive tapes which consist entirely of lengthy ceremonies, with long pauses at various intervals. Such tapes when transferred to discs offer 30 to 45 minutes of boredom because of the lack of creative editing. The main central item you need to record, of course, is the service of the marital union.

Ideally your microphone should be along the side of the area where the bride, groom and officiating clergyman will be standing. Always check beforehand personally with the clergy of the church to see whether you have permission to record the ceremony. Some church regulations prohibit your



The mike cables were run through a hole in the partition and thence to the recorder inputs. Cords were taped to the stands and a rug was thrown over the cord where it passed across the walking space to prevent accidents.



After the wedding be sure to get all the voices of friends, family and acquaintances of the bride and groom. Usually their remarks are confined to good wishes for the future happiness of the couple.

microphone in certain areas on religious grounds. Sometimes you may not be permitted closer than 30 feet from the altar. In such cases you will have to monitor carefully with your earphones because you'll have your volume turned almost to full power. A sudden change in sound intensity such as the playing of the organ or the soloist singing, will have to be met quickly by turning down the volume and then re-adjusting it again when the service proceeds. Also be prepared to turn up the volume at the point of the actual exchange of vows. Usually at this point the couple become very humble and since this is the only place in the service where they get to say anything, you want to be sure you don't miss it.

Many people record at the $3\frac{3}{4}$ i.p.s. speed because of economy; this is usually quite suitable. However if your machine exhibits any tendency to "wow" and "flutter," your recording will be ruined due to the gross harmonic distortion of the instruments usually heard at weddings. The most popular in the following order are: the organ, the piano, and/or combination of both. These instruments are difficult enough to record when machines are running smoothly, but they become impossible when recorded by a poor running machine. Therefore if your machine has any "wow" at the $3\frac{3}{4}$ i.p.s. speed then record at $7\frac{1}{2}$ i.p.s.

The next item which no good wedding recording should be without are the interviews with the bride and groom, immediate family, close friends and relatives. At massive weddings where more than a hundred people are in attendance, the bride and groom will select the guests for you and will usually co-operate fully in having those individuals honored by placing their voices on the tape. It is at this point that experience will help establish the correct inter-

viewing approach to people. Your questions should be fairly standard to evoke a common genuine response of congratulations and to add a bit of human interest to the record. In fact the interviewing section and how well it is handled and edited is the key to making a quality recording. Questions should be designed so that the party being interviewed will relate a significant impression or humorous incident relative to either bride, groom or both. Such as the time when Jane fell in the water wearing a new dress, or a significant gift given to or from the interviewed party. Actually any talk that relates to experiences of the bridal party will help give the recording a warm human quality.

There is no set pattern of incorporating your interviews into the final recording. One chap in Wisconsin sends us tapes regularly where at the beginning of the recording, the bride and groom are interviewed separately at their respective homes as they prepare for the ceremony. He also talks with them again after the service. In large cities it may prove too difficult to move from the bride's home to the groom's when they live far apart. You will learn with practice to develop the interviewing technique that is best.

After you have a little experience you may want to experiment using two mikes. One to record the service and the other used by the operator to add a running commentary of the procession and service. This adds a documentary touch but should always be attempted with some form of a script to know who's who in the procession.

The editing of your tape can be accomplished in two ways. If you are fortunate to have two recorders, you can re-dub various portions onto another tape. (See "Using Two Recorders" in the May 1958 issue). The other is to splice the desired portions together using splicing tape and eliminating the "dead" material from the program. (See "How To Close Edit" in the March 1958 issue.) In either case a final hearing and total timing will be necessary if you're going to have records made since this will determine the size and quantity of your needs.

Once you decide that you're going to try that first wedding to develop some experience, you will soon see a whole new interesting field open up to you and how much more extra enjoyment you'll get out of your recorder. Your only limit in this field is your imagination.

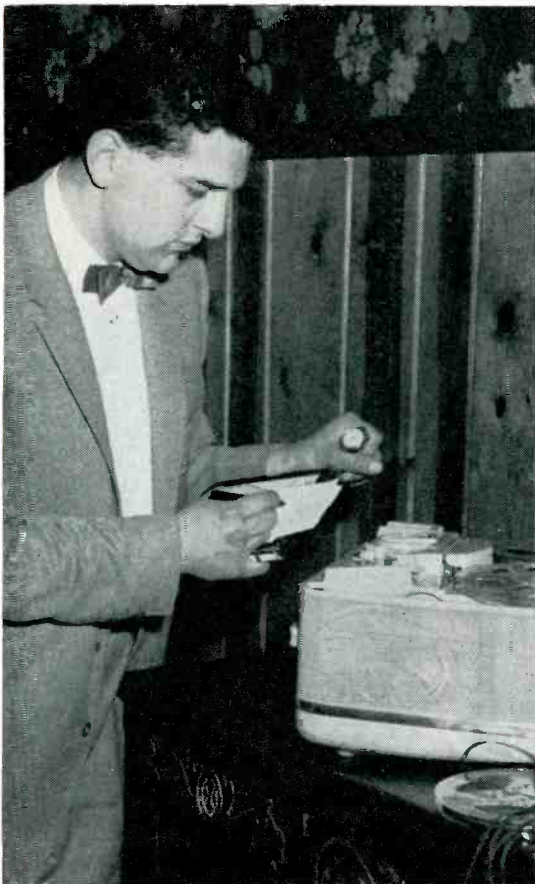


Photo by Donn Studio

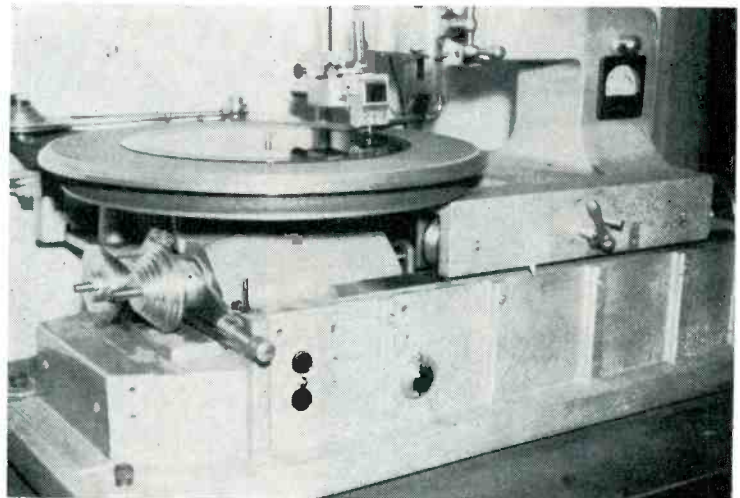


Photo Courtesy United Sound Systems

Left: Always make sure you know the exact time length of the final edited tape so you will know what type disc you will need. Above: A professional multi-speed disc recorder. LP discs should be cut on high precision equipment because of the fine nature of microgroove recordings.



John K. Pearce of Australia finds tape exchange a personal means of learning about your fellowman.



Bill Martin of Fresno, Calif., blind veteran, is an active member of the Tape Recording Exchange Subcommittee of the P-to-P Program.



"... our friendship is very deep, and each tape brings us closer together." Walt White, New York.



"I am sure I will enjoy this adventure in sound." (Tape exchange). Margaret Billington, Australia.



"... people all over the world will know each other better by exchanging tapes." Hans Weber, Germany.

PEOPLE - TO - PEOPLE PROGRAM

by Harry Matthews
Chairman Tape Recording
Exchange Subcommittee

... a giant step in the promotion of human understanding.

ON September 11, 1956, a group of leading American citizens met with President Eisenhower to discuss ways of establishing new paths towards international understanding. From this meeting the People-to-People Program developed, based on individual efforts outside and beyond official government channels.

Establishment of a subcommittee on Tape Recordings Exchange, under the general Hobbies Committee, was hailed by tape enthusiasts all over the free world as official recognition of a worthwhile movement towards understanding between nations.

When the tape recorder became available to the average man, his first thought was, "Why not mail this reel of tape to friends instead of writing letters?" The idea grew to include tape exchanges with people in other countries with a view to finding out how they live, and the Tape Recording Exchange movement was started. School classes and youth groups found tape exchange with similar groups in other countries a "natural" for their activities.



Above, left: An afternoon tea with an international flavor occurred at the home of Peter Goossen, Amsterdam, Holland, when he and his wife entertained four tape friends from other countries whom they met through World Tape Pals, Inc. Left to right: Mrs. Peter Goossen, Marjorie and Eric Channon (England), and Mr. and Mrs. Henk Mostert (Indonesia). Above, right: George Pappas and a group of his students in Melbourne, Australia, make a tape recording destined for exchange with a school in the United States.



Gerhard Nieckau, left, and Albrecht, a member of Munich's Young Soundcatchers, recording club sponsored by Gerhard, make on-the-spot recording of a Munich, Germany, festival for their tape program, "Life in Munich," available through World Tapes for Education.

Short of a personal visit, tape exchanges between individuals give one of the truest possible pictures of life at the common man's level. "Much good is bound to result from this international exchange of greetings and ideas on the citizen level," wrote a representative of the recording industry in 1954, two years before the inauguration of the People-to-People Program.

"My next-door neighbor talking to me over the garden fence," is the way Brian Muncaster, tape enthusiast of Portsmouth, England thinks of his tape pals in the United States. "How little it matters," he says, "That the fence is three thousand miles wide."

"But," questions the layman, "What influence can the discussions of two ordinary people several thousands of miles apart have on international understanding?" A great deal, say the founders of the People-to-People Program.

"If we are going to take advantage of the assumption that all people want peace, then the problem is for people to get together and to leap governments—if necessary to evade governments—to work out not one method but thousands of methods by which people can gradually learn a little bit more of each other." So spoke President Eisenhower as honorary chairman of the PPP.

The advantages of personal conversation over regular channels of news is expressed by many people. John K. Pearce, Australian radio personality, says, "However good the authorship in your press, however personalized the announcing on your radio or TV, you know that the message is for you collectively, not for YOU—personally." And the opinion of Ron Clough, of Wales: "Politics won't settle the international problem—only the people, of all colors, races, and creeds."

A survey of people who exchange recorded visits with overseas friends yielded the information that the average such person has three or four tape pals in other countries with whom he exchanges tapes regularly, and he is looking for one or two more interesting contacts. The greatest num-

ber of tape friends reported by any one individual was twenty-six! The same survey also revealed that a tape from another country is heard by at least five people; family, friends, or students.

Thus a person with four tape friends is talking not to four people, but to twenty! Multiply this by the thousands who use tapes for correspondence, and an impressive audience is the result.

The organized tape exchange associations assure the wide dispersal of this audience throughout the free world. Anyone with a tape recorder available may begin exchanging tapes by using the membership roster of such an exchange association. Although operated as non-profit associations, such groups pay great dividends in the form of good will.

Every user of tape may cooperate in the People-to-People Program by increasing the number of his tape friends outside his own country, and by making each of his tapes a personal message of friendship.

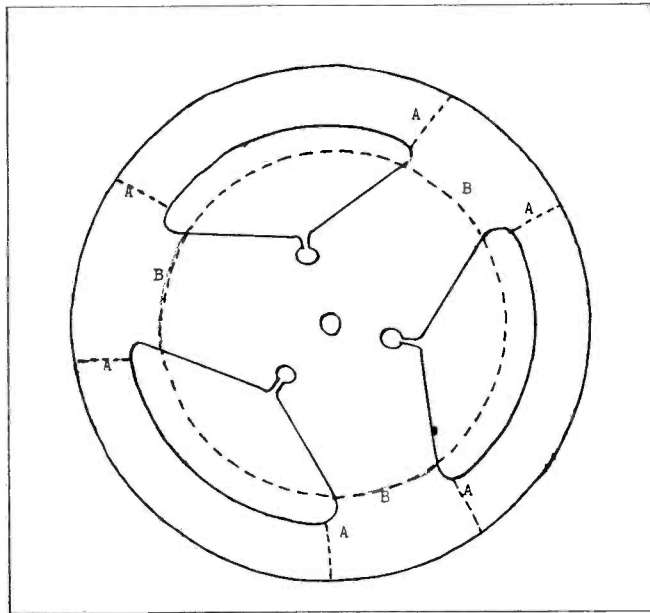
Rimless Reels

by David T. Thomson

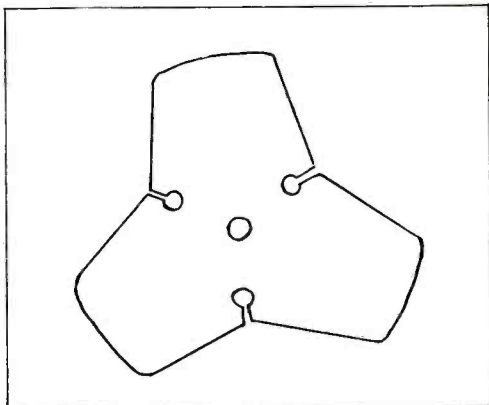
English Academy of Kyoto, Japan

... make your own easy-threading reels.

FROM the number of newly designed reels which are appearing on the tape recorder market it would seem that the "ultimate" in easy-threading reels has yet to be found. The problem may not be so great for many who do not need to thread a large number of reels daily. However, we believe threading has proven a nuisance at one time or another, for practically anyone who has used a tape recorder and it has been especially bothersome for us since we must thread forty or fifty 3" reels every morning when copying tapes for students to take home for practice on their own machines.



Above: Preparing a 3" reel from a 5" reel. Circular dotted lines indicate 3" reel used to mark proper size. Snap off with wire cutter at places marked "A". Use hot tip of soldering iron to cut along lines marked "B". Snip off melted plastic and file smooth. Below: A finished 3" reel made from a 5" reel with three spokes.



So far none of the regularly available reels seem to have solved all of the basic problems, among which are the following three:

1. Getting your fingers in the opening between the rim and the slot where the end of the tape is threaded (this is a special nuisance with small 3" reels);
2. After threading, turning the reel a couple of times to hold the tape firm without bending your wrist through many awkward positions and without having the tape end slip out before completing this operation (perhaps the new Audiotape C-slot reel has solved this problem, but not the next);
3. Passing the tape end between the rims with one hand, catching it with the other, and then threading it (Soundcraft has a reel which might seem to answer this problem since instead of passing the end between the rims, there is a long slit the length of the spoke, but this reel is troublesome because the tape catches on the edges of the narrow slit near the rim).

Even should all of these problems (and any more you can think of) be solved by a manufacturer and even should newly designed reels be available, many places, such as this Academy, could not afford to discard the hundreds of reels now in constant use and replace them by better designed ones.

In order to solve the problems outlined above the following solution was tried and has worked out successfully. Also, the solution is applicable to practically any reel you might now be using as we have tried it out with many different models of reels.

The answer we found is a simple one. By cutting out a segment of the rim, so as to leave one part of the reel entirely open down to the hub and therefore giving easy access to the slot where you thread the tape, troublesome threading has been completely eliminated. Without the slightest difficulty the end of the tape can be slipped into the slot provided and the hand is entirely unencumbered by a rim which previously always seemed to get in the way. Of course, it is no longer necessary to slip the end through the parallel rims first. Finally, if you do not have a C-slot reel, it is a simple matter after slipping the tape end into the ordinary slot at the hub to give the reel one or two turns to hold the end fast to the take-up reel.

At first it was thought that with part of the rim cut away some trouble might arise either in winding a full reel or in keeping the tape on the reel. But this did not prove to be the case. The absence of a segment of the rim has not affected the winding nor the security of the tape on the reel. Even when several or all of the segments of the rim have been cut out, leaving only the spokes intact, there has been no adverse affect. In fact, for some purposes it is useful to cut out the entire rim.

Cutting away the complete rim makes it very convenient

for anyone who uses a tape recorder for studying a foreign language. Since this is the main purpose of the recorders at this Academy, the absence of any rim has been very beneficial. The reason is as follows: when a student is playing a tape on a machine often he wishes to backtrack the tape one or two sentences to re-hear something he didn't quite catch. With the rimmed reels it is a little difficult to do this and also it sometimes results in breaking the tape. With the rim cut out, so that only the spokes remain, the student can easily backtrack the tape while the switch is still on "play" position (it is very inconvenient to have to keep switching during this kind of work). All he needs do is press the automatic stop button and with his other hand back up the feed reel by pressing against one of the spokes. The reel backtracks easily and as it does he hears the recorded material (in reverse, of course) and with very little experience he soon learns just how much to back the tape to re-hear the portion he wants to. Actually, we use a footstop, thus leaving one hand constantly free for this operation and the other free to turn the pages of a text.

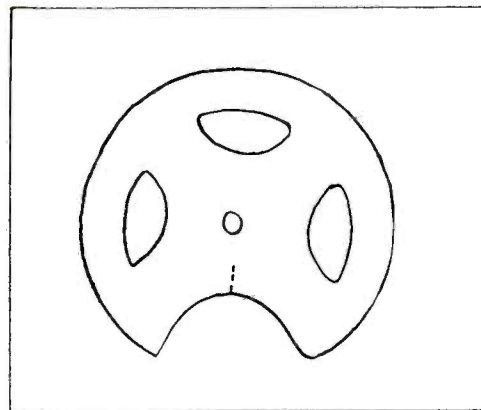
Just how are these easy-to-thread reels made? This is the best part of it, for they can be made from almost any standard reel. You need only take a pair of electrician's wire clippers and snip off a segment (or segments, if you prefer) of the rim, and then file off the place where you cut. If you have any trouble snipping (that is, if the reel breaks where you don't want it to) then try passing the tip of a hot soldering iron across the place where you want the break to be (be sure the iron is good and hot). The plastic won't burn and none of the reels tried this way gives off any bad odors.

In case you have a batch of 5" or 7" reels on hand which you do not need (we use only 3" reels), and want to make 3" reels, this method of adapting reels is very useful. To make a 5" reel out of a 7" reel or a 3" reel out of either a 5" or 7" reel you need only do the following:

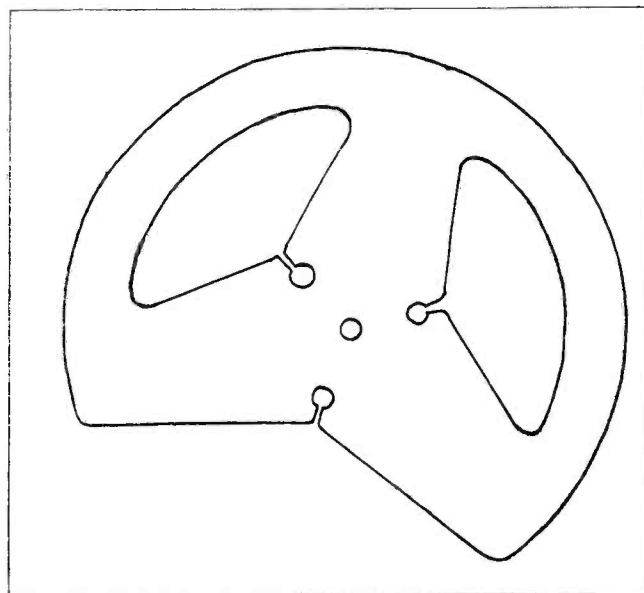
1. Lay on top of the reel being prepared a conventional rimmed reel of the size you want the new reel to be (be this a 5" or 3" reel) and mark with a red pencil just outside the rim of the conventional reel onto the larger reel. Be sure to mark both sides of the reel you are preparing;
2. Snip off all the rim;
3. Pass the tip of a hot soldering iron along the red lines marked on the spokes of the reel you are preparing. It is best to pass the iron a fraction of an inch outside the red line;
4. Finally, file down the outer edges of the spokes and you have a new reel which for many purposes is superior to the old one.

The reason for using the soldering iron to cut the spokes is that if you try this with wire cutters you are as apt as not to break the spoke off clear up to the hub where you thread the tape. But if you ever should break off a spoke close to the hub, don't throw it away. You can still use a reel even if it has only two spokes left. After using the soldering iron (and you will probably have to pass it over the red line a couple of times) there will be some plastic left sticking to the outer edge of the spokes which melted there when you used the iron. This plastic can easily be cut off with a pair of short nose wire clippers.

One final benefit of the rimless reel is that it makes it very easy to anchor the end of your tape when the reel is not in use. You need only slip the end of the tape under



Above: A 3" reel with one segment cut out for easy threading.
Below: A 5" reel with one segment of the rim cut out for easier threading.



one of these spokes and it is held nice and firm. Then you can put the tape in its box or lay it on a table and there won't be a lot of loose ends dangling from your reels which have to be rewound by hand before putting the reels on the machine or in their boxes.

The method indicated for preparing easy-to-thread reels is also especially suitable for small reels used for sending tape letters. Always be sure when you cut out a segment of the rim that you do so on both sides of the reel or, otherwise, after playing the reel through and turning it over to play the second track you will face the same problem as you always have when using conventional reels—namely, the rim will still be awaiting you on the other side to get in the way of your fingers.

It would be a mistake to pretend that the rimless reel as explained above is the ultimate or perfect easy threading reel. But it does serve certain purposes, such as indicated above, and if the idea should be developed it might lead to something even more perfect. We have found it particularly useful for the small 3" reels, whereas we haven't given it a fair try with larger sized reels. Therefore, we suggest that anyone interested in trying out the adaptation given in this article first do so with only one or two reels. Then if he finds it suits him he can try it with other reels.



How to Make Aluminum Mailing Boxes

by Earl R. Savage

. . . . inexpensive, convenient, and simple to construct.

Do you know the actual drudgery of wrapping, sealing and addressing reels for mailing? Do you know the anger and disgust of receiving a damaged or broken reel from the postman? If you answered yes to these questions, this

article is written for you. You will find information here to enable you to eliminate the drudgery and anger leaving only the pleasure of receiving the tapes. The mailing boxes, contrasted above with the conventional wrapping, are convenient, light, sturdy, inexpensive—and they are easily made!

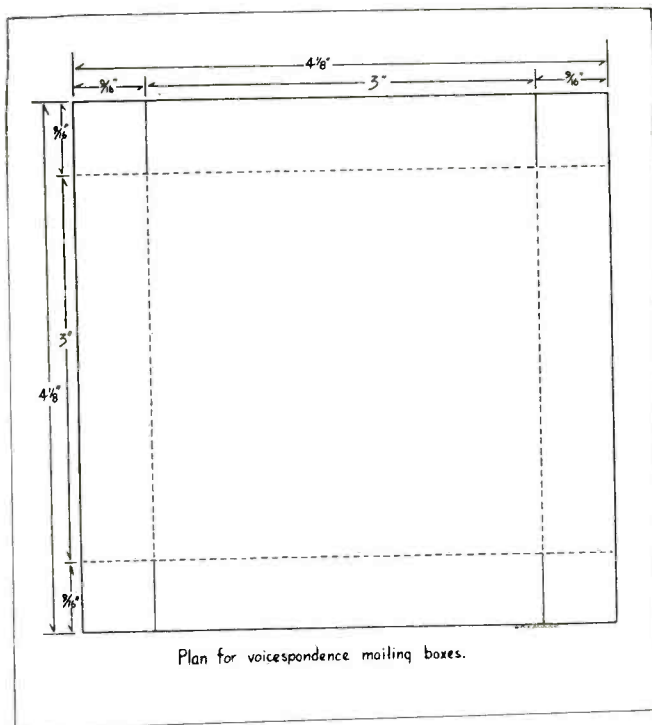
They are convenient since it is only necessary to reverse the top and affix a new stamp in order to remail your tape. Being made of aluminum, they are light and sturdy. Occasionally one will arrive with a slightly bent side, but this can be made like new by the judicious application of a pair of pliers. In a year of using these boxes, the writer has never had a reel of tape damaged—even after trips across the Pacific they are unscathed.

These boxes can be made in a few minutes and no special skill is required. The cost per box is approximately six cents and the materials are readily available. They include the following:

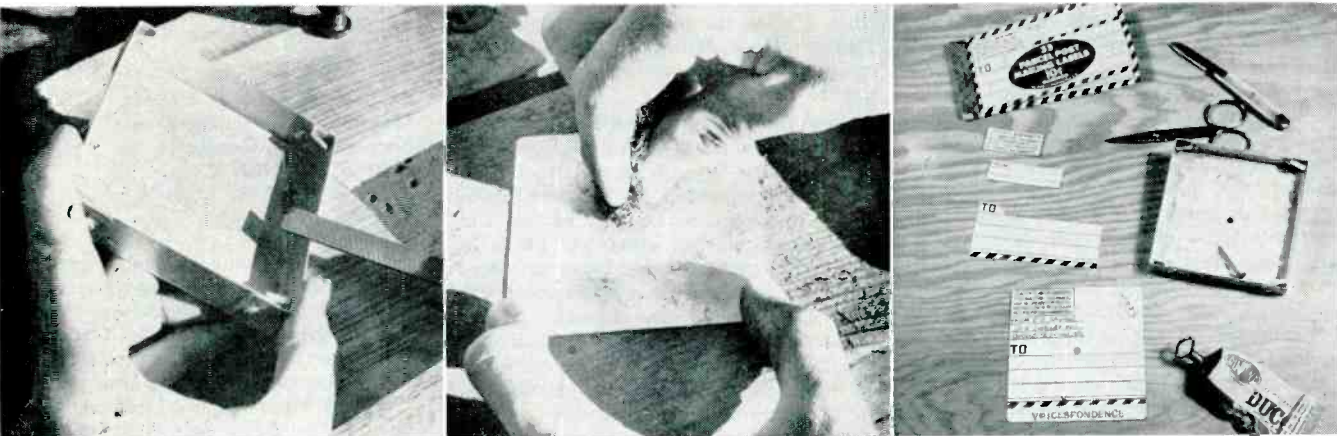
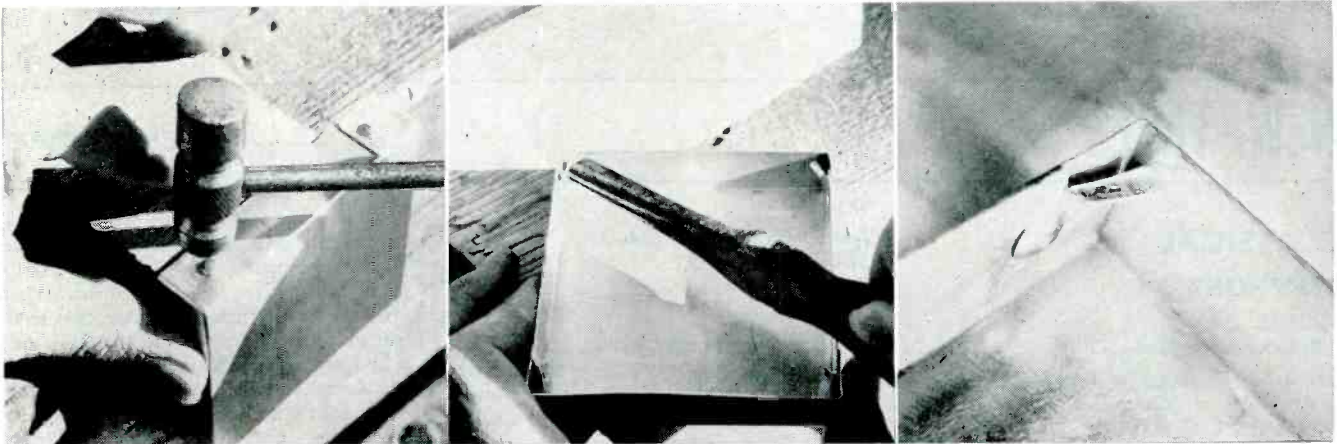
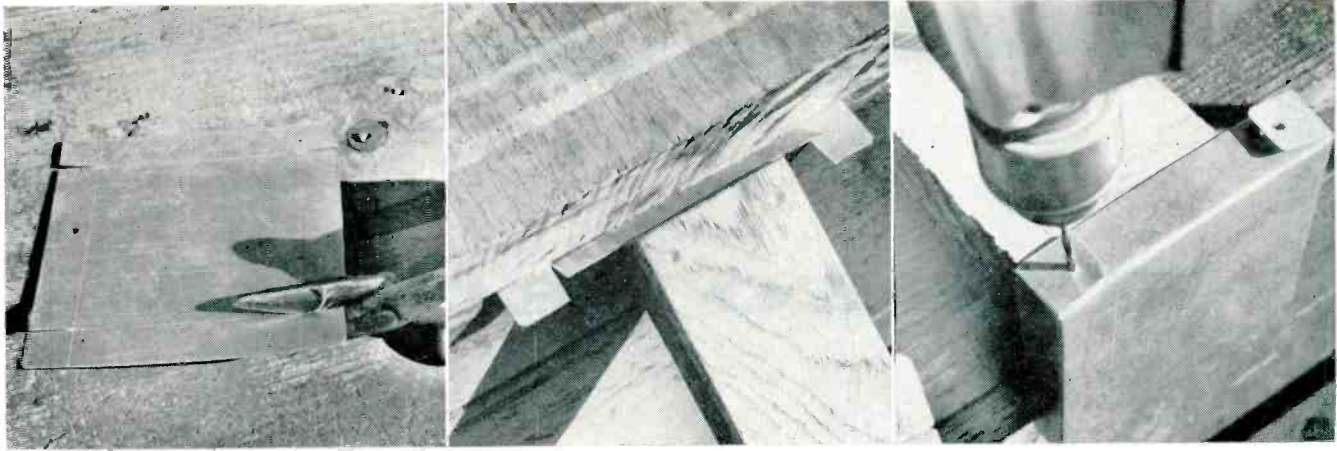
1. Sheet aluminum— $4\frac{1}{8}$ " X $7\frac{1}{8}$ " per box. Reynolds Do-It-Yourself or similar.
2. Aluminum rivets—four per box.
3. Brass paper fasteners—one per box.
4. Glue and heavy paper—to make the top a suitable addressing surface.

The simple tools can be found in most homes. They include: hammer, pliers, small tin snips or kitchen scissors, drill (hand or electric variety, but you "can" use a nail to punch holes in the aluminum), and a small file.

Just gather the materials and tools and you are ready to begin. Follow the illustrated directions and you will find out how much more pleasant taping can be.



This plan should be transferred to the aluminum before cutting is begun. The dashed lines indicate bends—NOT cuts.



Top, left: After the square is cut out, the four short cuts are made for the corners. Do NOT cut out the top yet. Top, center: All bends should be made as shown here—the aluminum is sandwiched between two pieces of wood. If this is not done, the bend will not be smooth and even. Top, right: The flaps are bent around the corners and rivet holes are drilled or punched. Middle, left: The rivet head (inside the box) is backed by a piece of wood. When the bottom has been formed, the top is cut out to fit "inside" the box. Middle, center: The corner stops are made by bending down about $\frac{1}{8}$ " of the sides where they are covered by the flaps. Middle, right: These four corner stops may be omitted but they do have some value in securing the top and protecting the reel. Bottom, left: Now holes are drilled or punched in the center of top and bottom to accommodate the brass fastener. Every edge and corner should now be filed smooth for safety. Bottom, center: Steel wool may be used to give the box a more pleasing appearance. Of course, aluminum with an embossed design may be used in place of plain sheets. Bottom, right: Both sides of the top are roughened by scratching with a nail and heavy paper is glued to each side and trimmed to the proper size. Parcel Post labels may be used as shown or the information may be inked on each side. Final safety measures for your tapes are first, to scratch or engrave your name and address in the bottom of the box and, second, to put Scotch or masking tape over the ends of the fastener after passing it through the top, reel and bottom. From now on all you and your tapespondents have to do is reverse the top, affix a new stamp, and drop it in the mail. What could be simpler?

STEREO SECTION

NEW TAPES

By Georgie Sigsbee

CLASSICAL SYMPHONY

BERLIOZ

Symphonie Fantastique

Cento Soli Orchestra of Paris
Louis Fourestier, Conductor
OMEGATAPE ST-3013
43.5 mins. . . . \$14.95

Unfortunately, no program notes accompanied this pre-release tape to identify the "Cento Soli Orchestra of Paris," so we can only say that they play well and turn in a satisfactory performance. However, program notes will be provided with this release per word received from Omega's head man, Dave Hubert. Louis Fourestier is, of course, already renowned and is no stranger to collectors of recorded music. However, the reading here, in spite of its big, brilliant, open sound, leaves quite a bit to be desired. Fourestier sets a pleasing pace, quite a bit faster than Munch in his version; however, while the Munch reading brings out each instrumental voice clearly, the inner-voices and subtleties are lost in the Fourestier recordings. Whether they are not played or simply not caught by the engineers I cannot tell, but at any rate they are not heard. The melody and bass are played loudly, but little else.

In the review copy there also appeared three measures from the early part of the second movement (on the right-hand channel only) to break the pause between the first and second movements. It is difficult to understand how the engineers could let so obvious a defect as this creep into the duplicating process.—J. L.

TCHAIKOVSKY

Symphony No. 6 in B Minor ("Pathétique")
New York Philharmonic

Dimitri Mitropoulos, Conductor
COLUMBIA LMB 19
40 mins. . . . \$15.95

My reaction to this reading is that Mitropoulos takes this symphony, particularly the first movement, at a very fast clip without transmitting any deep feeling of aching sorrow. The second movement is done very well, full and rich, though I would have liked the middle section a bit slower. The marchlike third gets a gold star . . . excitingly performed with all the brilliant orchestral colors effectively brought to the listener. During the fourth movement, more than in the first, Mitropoulos tends to build up some emotional feeling, ending on a sombre, dark note.

As to the fidelity it is well done . . . the third movement is a beautiful example of the clarity of the instrumental work. At times the keen reality of this recording is almost too intimate. During the first and final movements (at least eight places in each) you can hear things being moved or perhaps a bow striking a music stand, etc. And before the development section in the first movement, the squeaking of a chair (?). Usually these moments come, of course, in the more quiet parts. In other words, you are right there IN the orchestra . . . but seemingly only at these moments. However, all in all, this is a good recording and there will be those who find the Mitropoulos interpretation much to their liking.

TCHAIKOVSKY

Symphony No. 6 in B Minor (Pathétique)
Sinfonia of London
Muir Mathieson, Conductor
LIVINGSTON 4002K
44½ mins. . . . \$11.95

Briefly, I am not satisfied with this recording. The lyrical passages lack depth of

expression, while the dramatic ones, though vibrantly emphasized, do not carry the impact I have derived from several single-channel recordings. There are rough spots in the first movement where conductor and orchestra do not seem to work together smoothly. Mathieson handles the climaxes as though breathing fire and brimstone and at moments whips the orchestra into an almost frantic frenzy.

There are too many top recordings of this lovely symphony . . . and for me this is not one of them.

There is audible hiss on my copy.

TCHAIKOVSKY

Symphony No. 5, in E Minor
Mannheim National Symphony
Herbert Albert, Conductor
LIVINGSTON 4001 K
49 mins. . . . \$11.95

By some historical coincidence, "Symphony No. 5" has become the most played opus, whether composed by Beethoven, Shostakovich, or the arch-Romanticist, Tchaikovsky. The latter is richly served by this stereo sound from one of Europe's most significant but least known musical centers—Mannheim, on the Rhine near Frankfurt. Dating from a small court ensemble in 1593, the modern symphony orchestra grew under discerning royal patrons, to the point where even Haydn, Mozart and Beethoven took lessons in composition from the Mannheimers. The permanent conductor, Herbert Albert (not to be confused with Rudolf Albert who performs under Omega label) has capable forces today to display the sonorities and driving episodes of Tchaikovsky.

The superiority of tape over discs is illustrated by several unique features of this performance: 1. note the uninterrupted length of 49 minutes, which no one-sided

disc offers with equal fidelity, 2. the dynamic range from such deceptively soft passages to thundering climaxes which would bound a phonograph stylus right out of the groove, 3. the fidelity which is equal to the best stereo equipment that may play it for you. Unfortunately on our copy there was audible hiss. I played this many times—no breakage. There is considerable hiss on this copy though. (No Livingston tape has ever broken!)

CONCERTO

TCHAIKOVSKY

Concerto No. 1 in B-Flat Minor, Op. 23
For Piano and Orchestra
Leonard Pennario, Piano
Erich Leinsdorf Conducting
Los Angeles Philharmonic Orchestra
CAPITOL ZF-40
31:5 mins. . . . \$14.95

A fine traditional rendition showing Pennario and Leinsdorf in thorough command of the many technical difficulties of this concerto. It is very comparable to the Gilels-Reiner version (RCA ECS-8 reviewed Oct. 1956) particularly in the first movement. After this, Mr. Leinsdorf leads a considerably more brisk pace which accounts for this tape being 2.5 mins. shorter than RCA's.

Here the most remarkable feature is the more distant miking given the solo piano which affords a more pleasing balance with the orchestra; Gilels' piano sounds massive . . . possibly the way it does sound from the podium, but not the way it sounds to us in our favorite seat in the concert hall. Pennario's technique is crisp and clean; every note of his runs can be clearly heard. The recorded sound is just a bit more brilliant than RCA's. I have a slight preference for this recording, but certainly no one would be unhappy with either one. The album notes are excellent.—*J. L.*

ORCHESTRAL

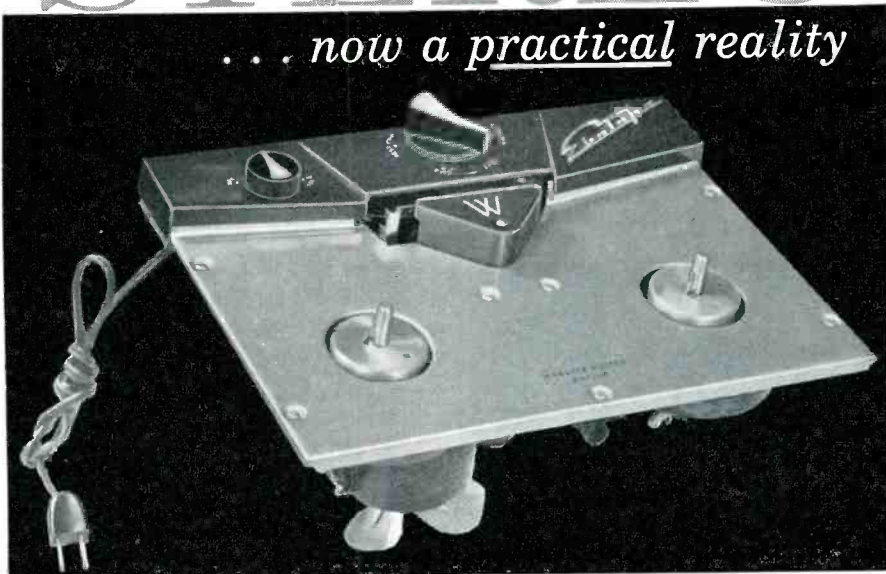
BRITTEN

Young Person's Guide to the Orchestra
DOHNANYI
Variations On A Nursery Tune
Concert Arts Symphony Orchestra
Felix Slatkin, Conductor
Victor Aller, Piano
CAPITOL ZF-23
41 mins. . . . \$14.95

Benjamin Britten composed this score in 1945 to illustrate the various instruments and groups that make up the modern symphony orchestra. But more than simple demonstrating, Britten introduces the various members by way of a musical composition particularly well-suited for this purpose. . . . "Variations and Fugue On A Theme of Purcell." The result constitutes not only a rewarding educational experience, but very pleasant listening as well. In this tape the fine stereophonic recording brings out each instrument clearly and in perfect balance. Although sometimes performed with a spoken commentary, Capitol has wisely omitted it here and has thoughtfully supplied album notes, furnishing all the necessary information, and avoiding the distraction of a narrator.

STEREO

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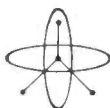
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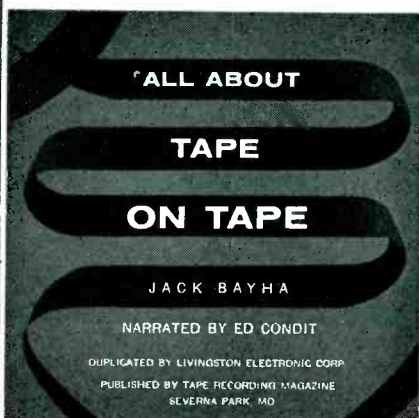
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The Dohnanyi Variations On A Nursery Tune are a charming set of variations on the familiar "Twinkle, Twinkle, Little Star" written for Orchestra and Piano Concertante. This is worthwhile music, not profound, but entertaining and illustrative of what grandiose treatment can be accorded a simple melody. In this treatment Dohnanyi's subtle mimicry of the style of several famous composers can be recognized.

Victor Aller and the Concert Arts Orchestra acquit themselves well. Their playing is straightforward and concise and the recording is up to Capitol's usual high standard.—J. L.

STRAUSS, Johann, Jr.

Die Fiedermaus (Selections)
Overture
Gulcklich ist, wer vergisst Polka Mazurka
Fledermaus Polka
Tik-Tak Schnell-Polka
An der Moldau Polka Francaise
Du and Du Waltzes
Boston Pops Orchestra
Arthur Fiedler, Conductor
RCA CCS-91
24:35 mins. . . . \$10.95

Delightful and charming. Both relaxing and invigorating for either listening or dancing, these assorted pieces from "Die Fledermaus" make a most pleasant musical repast.

Executed with good spirit and recorded with high standards of quality.

PROKOFIEF

Lieutenant Kije, Op. 60
Chicago Symphony Orchestra
Fritz Reiner, Conductor
RCA BCS-96
20 mins. . . . \$8.95

This suite was contrived from music which Prokofief composed for a Russian motion picture titled "Lieutenant Kije" back in 1933. The five sections of this composition tell the brief story of this fictitious Russian officer; his birth, romance, wedding, troika, and his burial.

Reiner conducts the satirical, humorous music with neat dispatch, his touch being more precise than light. The orchestra gambols about occasionally and whips spiritedly through the troika. It is the colorful stereo instrumentation . . . the percussion, brass, etc., which will delight the ear. There is a slight pre-echo before several of the numbers, but otherwise the recording is clean and bright.

CHORAL

ORATORIO

G. F. Handel
Excerpts from the Messiah, Volume II
Why Do the Nations
Pastoral Symphony
There Were Shepherds Abiding
Glory to God in the Highest
Rejoice Greatly, O Daughter
Behold, I Tell You a Mystery
The Trumpet Shall Sound
Worthy Is the Lamb
Amen
Adele Addison, soprano

Donald Gramm, bass
Lorna Sydney, contralto
David Lloyd, tenor
Chorus of the Handel and Haydn Society of
Boston and the Zimble Sinfonietta
BOSTON BO 10 F
29:30 mins. . . . \$11.95

In July 1957 we reviewed Volume I of these excerpts taken from the 1955 recording session made under the auspices of Unicorn Records. Volume II makes a fine companion piece to the first release . . . and is heartily recommended both for exceptional quality of content, performance and reproduction.

STARLIGHT CHORALE

(Famous Choruses From the Opera)
BIZET: March and Chorus from CARMEN
WAGNER: Pilgrims' Chorus from TANNHAUSER
VERDI: Anvil Chorus from IL TROVATORE
WAGNER: Wedding Chorus from LOHENGRIIN
GOUNOD: Waltz and Chorus from FAUST
PUCCINI: Humming Chorus from MADAME BUTTERFLY
GOUNOD: Soldiers' Chorus from FAUST
VERDI: Triumphal Chorus from AIDA
Hollywood Bowl Symphony Orchestra
Roger Wagner Chorale
Roger Wagner, Conductor
CAPITOL ZF-39
35 mins. . . . \$14.95

I can imagine no happier union than this of one of our most celebrated singing groups and one of our richest-sounding symphonic orchestras. The picture is completed by the tasteful selection of famous choruses from opera. I am one opera lover who can see no sin in taking some of the delightful music and enjoying it for its own sheer "per-se" musical value.

On the contrary, I think it would be shameful to leave glorious melodies like these always buried under the weight of operatic presentation!

I can find not a single flaw in this performance. Capitol engineers have captured it with masterful recorded sound. The album notes have thoughtfully located each selection in its proper perspective to the plot of its particular opera. You should hear it!—J. L.

A MIGHTY FORTRESS

A Mighty Fortress
Fairest Lord Jesus
Prayer of Thanksgiving
All People That On Earth Do Dwell
All Creatures of Our God and King
The Robert Shaw Chorale
Robert Shaw, Conductor
Thomas Dunn, Organist
RCA ACS-107
14:55 mins. . . . \$6.95

If it is beauty and peace you seek, this grand recording of wonderful hymns should give it to you.

Faultless in all respects.

ALL THROUGH THE NIGHT

Autumn Leaves
If I Had My Way

The Inch Worm
 Dear Hearts and Gentle People
 Anywhere I Wander
 Tennessee Waltz
 Greensleeves
 Funiculi Funicula
 Drink To Me Only With Thine Eyes
 Comin' Thro' the Rye
 All Through the Night
 Fred Waring and the Pennsylvanians
 CAPITOL ZC-44
 34:20 mins. . . . \$11.95

This highly skilled choral group raises its voices in familiar songs and the net result is bound to please. A pianist, a rhythm section, and in one number a full orchestra lend some color, but fortunately do not gild the lily. Waring has given fresh arrangements to many of these selections and the last part of "Comin' Thro' the Rye" almost sounds like a show tune.

There is some slight sibilation on my copy, particularly noticeable during "Anywhere I Wander" but otherwise this is an above average stereo recording . . . well produced and performed.

LIGHT CONCERT

MUSIC OF LEROY ANDERSON

Sleigh Ride
 Forgotten Dreams
 Serenata
 Penny-Whistle Song
 Sandpaper Ballet
 Bugler's Holiday
 Frederick Fennell, Conductor
 Eastman-Rochester "Pops" Orchestra
 MERCURY MVS5-30
 16:30 mins. . . . \$7.95

For both young and old alike. These charming pieces with their humor, subtle sound effects, and charming melodies are what I term a sure-fire family hit.

If this were a disc it would soon be worn out! We derive as much enjoyment and fun listening to these Anderson compositions as I am sure the men had in performing them.

The fidelity is excellent.

POPULAR

WILD ABOUT HARRY

Kinda Like the Blues
 Blues For Lovers Only
 Countin'
 Cotton Pickin'
 Barn 12
 What Am I Here For
 Blues For Harry's Sake
 Bee Gee
 Blues On A Count
 Harry James and His Orchestra
 CAPITOL ZC-29
 33 mins. . . . \$11.95

A most refreshing collection of new and thoroughly danceable tunes done in the traditional big-band style but with modern orchestration. There is a distinct feel of Count Basie in several of the tunes which can be traced to Ernie Wilkins, one of the arrangers who has also been associated for some time with "The Count." The album notes are nicely detailed and done by Harry James himself, which is a big help in getting the most out of each number. The very excellent drumming of Buddy Poor and the tight

rhythm work of the group are particularly impressive. The recording is just wonderful! —J. L.

BE MINE TONIGHT

Pan, Amore, y Cha Cha Cha
 Take It Easy
 Too Marvelous For Words
 Nightingale
 Whatever Lola Wants
 Babalu
 ABBE LANE
 With Tito Puente and His Orchestra
 RCA APS-93
 18 mins. . . . \$6.95

Abbe Lane (who in private life is Mrs. Xavier Cugat) offers renditions of these selections which are about as exciting as one could wish. Tito Puente and his Orchestra supply the Latin beat, and RCA's intimate miking bring Miss Lane dangerously close. —J. L.

"PREZ"

Lullaby of Birdland
 Machaca
 Leo's Special
 Cu-Cu-Rru-Cu-Cu Paloma
 Fireworks
 Perez Prado and His Orchestra
 RCA APS-105
 17 mins. . . . \$6.95

The "King of the Mambo" reveals here that he is equally at home as an interpreter of Latin rhythms or as a jazz impresario of the first order. Exceptional clarity of recording and ideal stereophonic balance make the numbers even more exciting. —J. L.

BARBER'S HOLIDAY

Keep America Singing
 On the Boardwalk in Atlantic City
 Mood Indigo
 Susie Brown
 Beautiful Isle of Make Believe
 Mister Moon
 De Animals A-Comin'
 Coney Island Baby
 The For-Tune Hunters
 LIVINGSTONETTE 2010 C
 15 mins. . . . \$6.95

This barbershop quartet composed of Alfred Flitz, Charles Giess, Charles McKinney, and Stanley Fleagle sing forth in rather a solid, straightforward manner. They seem to loosen up from "Susie Brown" on, and by the time they hit the last two numbers they seem more relaxed. I don't know how "Mood Indigo" slipped into barbershop repertoire.

I am happy to see that *Livingston* is now packaging its Livingstonette series in boxes in lieu of the plastic containers. This album cover by Dan Piel is a clever one.

Recorded sound is OK.

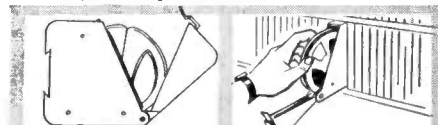
A BREATH OF FRENCH AIR

La Mer
 Rien qu'une chanson
 Coin de rue
 Vous qui passez sans me voir
 Ame des poetes
 Boum
 Quand vous entendrez
 Mamselle



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Menilmontant
Vous etes jolie
Bonsoir
Jolie madame

Roger Lecussant and His Orchestra

OMEGATAPE ST-7030
28 mins. . . . \$11.95

Lecussant plays the compositions of Charles Trenet and does so with smooth finesse. The selections are played with imagination and Parisienne flair.

The thirty-year-old Lecussant plays the piano with skill. You will hear vibes, flute, accordion, and guitar adding spots of color to the orchestral arrangements. The numbers vary from the smooth "Coin de rue" to the jazz beat of "Boum" and the mambo beat of "Quand vous entendrez."

The fidelity is tops.

THE ROARING 20's

Mary Lou
Clap Hands! Here Comes Charlie
A Cup of Coffee, A Sandwich, and You
That Old Gang of Mine
Sunny Side Up
Last Night On the Back Porch
Sonny Boy
Diga Diga Doo
Everybody Loves My Baby
Somebody Loves Me

Enoch Light and the Charleston City All Stars
GRAND AWARD Volume I
24:30 mins. . . . \$9.95

A relatively new label in the stereo tape field, *Grand Award* comes to you on full length 7" reels (1200') for stacked heads, list price \$9.95 per reel. They offer pop albums ranging from polka, honky tonk and society dance to the memory bits such as this. Their artists include Enoch Light, Charles Magnante, Paul Whiteman, Rod Gregory, etc.

This particular tape brings you tunes of the rip-roaring 20's arranged with a feel for authenticity and instrumental showmanship. All numbers, except for "Diga Doo," are enlivened with vocal work. The male division gets the spotlight more often, both in groups and solo shots with the gals giving out on two numbers.

A most enjoyable recording with clear, widespread sound.

SOCIETY DANCE PARTY

Rosalie, Easy to Love
Lady Is a Tramp, You're the Cream in My Coffee
I Won't Dance
Bewitched, Love Walked In
So In Love, I've Got You Under My Skin
Orchids in the Moonlight
Carioca, If This Isn't Love
June Is Bustin' Out All Over, Flying Down to Rio
Smoke Gets in Your Eyes, There's a Small Hotel

All the Things You Are
Rod Gregory and His Society Dance Orchestra
GRAND AWARD
29 mins. . . . \$9.95

Playing 17 tunes in the same quick-rhythmed tempo throughout, Rod Gregory's

smooth, polished band shows the touch of an experienced hand. His music is the kind you hear in smart supper clubs and hotel dance spots. There seems little flexibility or contrast except those provided by the piano, accordion, guitar and alto sax. Particularly well done are "Orchids in the Moonlight" and "Carioca."

There is a slight pre-echo before some of the numbers. The overall sound is spread and somewhat reverberant, yet the individual instrumentation is warm and close. Good bass reproduction . . . a good high fidelity recording.

WE COULD HAVE DANCED ALL NIGHT

Let's Fly Away
Medley: Cornsilk: I Get a Kick Out of You,
The One I Love Belongs to Somebody Else, Yours Sincerely, Alexander's Ragtime Band

The Petite Waltz
I Know That You Know
When Day Is Done
The Girl Friend

Griff Williams and His Society Orchestra
MERCURY MVS2-24
18 mins. . . . \$7.95

More of the Griff Williams society dance orchestra (MDS2-7, March '58). A foot-tapping fox-trot heat is applied to these standard tunes. The orchestra manages to keep a sedate exterior while instrumentally doing some interior decorating. Listen to "Alexander's Ragtime Band" as an example. With a string section reminiscent of Wayne King and with brass and keyboard styled a la Lombardo, this orchestra has maintained its popularity for many years.

Recorded at Universal Recording Studios in Chicago, the sound is very good.

SOUTH PACIFIC

Nothing Like a Dame
Some Enchanted Evening
Bali Ha'i
A Wonderful Guy
Younger Than Springtime
This Nearly Was Mine

New World Theatre Orch., and Hollywood Sound Stage Chorus
BEL CANTO STB-36
22 mins. . . . \$9.95

Bel Canto presents a mixed chorus which does a good job of singing these six. The orchestra's soft, sweeping strings provide an almost Mantovani-like background. In fact, the string section is 'way in the background while the steady beat of guitar and bass seems too much up front, noticeably so in "A Wonderful Guy" and "This Nearly Was Mine." In "Bali Ha'i" and "Wonderful Guy" the engineers use a full echo effect on the girl singer, while this does not seem to be the case when the male soloist steps up to sing. Nonetheless this recording is easy to listen to and will supply an agreeable interlude.

MUSIC MAN

75 Trombones
Goodnight My Someone
Lida Rose
Till There Was You
Marian, the Librarian

New World Theatre Orch., and Hollywood Sound Stage Chorus with vocal and solos

BEL CANTO STC-37
18 mins. . . . \$7.95

We have on hand a pre-release copy of Bel Canto's offering of tunes from Meredith Willson's current Broadway show. A happy surprise it is, too, to find that this tape is not just lush instrumental background music. Here is a rather spunky recording with chorus, soloists and full orchestra; all accorded broad, reverberant sound.

The spirited "76 Trombones" is followed by the lovely lullaby melody, "Goodnight, My Someone," (same theme as "76 Trombones") with female solo assisted by chorus. "Till There Was You" is presented in the same smooth style. The fellows take over in "Marian." The voices are refreshingly young and the recording very pleasant.

RALPH FLANAGAN IN HI-FI

Hot Toddy
Street of Dreams
Joshua
Giannina Mia
Where or When
Penthouse Serenade
I'll Be With You in Apple Blossom Time
Rag Mop

RCA BPS-83
20 mins. . . . \$8.95

Colorful reeds and bright brass start this recording off with Flanagan's original "Hot Toddy." The men go uptempo on "Joshua" and "Rag Mop" and seem to have fun adding their voices to the musical arrangements. All of the other selections are done in a style similar to Glenn Miller . . . so if you liked the latter (and who didn't) you'll like this recording. Good for dancing or listening.

Beautifully engineered.

MISCELLANEOUS

DUELIN' DEMON DRUMS

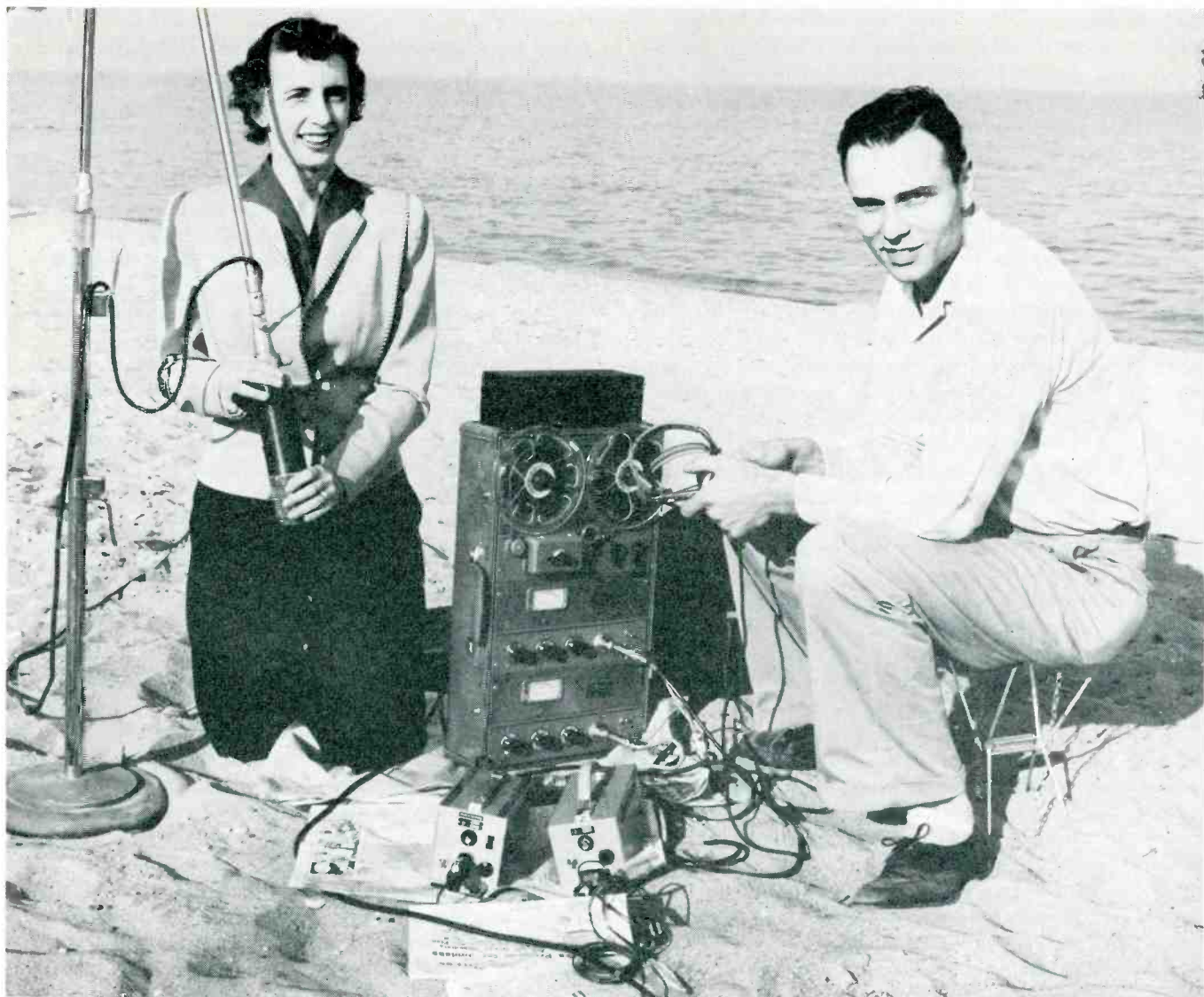
Featuring Richard Campbell and Harry H. Coon on drums
CONCERTAPES 5124
14:30 mins. . . . \$7.95

These two drummers really give quite a percussive display in this recording. Campbell toured South America and Africa where he studied the authentic native rhythms heard on this tape. Working closely with Jim Cunningham, recording engineer, these two artists have produced an unusual tape, not without its satire and expanded percussive effects.

In the first portion titled "Tangangika" you'll hear such "works" as "Masai Rumble," "Tumbatu Tintintambula," and "Sum-bawanga Rattatto." What titles! In the latter the snare-drums, rattles, cymbal-crashes and other percussion sounds should "send" the hi-fi "fiend." The second portion is devoted to some drumming based on an authentic Indian chant.

This is a fascinating, different, sort of recording. Naturally it is a showpiece for the stereo outfit but let us not overlook that these drummers are talented and prove their artistry in a humorous, keen way.

Engineering-wise, it's hats off to Cunningham. A job well done!



Photos by the author

James and Darleen Bornemann lugged some 380 pounds of recording equipment almost a mile to reach the best spot for a stereo recording of an ICBM blast-off. They set up shop on a stretch of beach in a nonrestricted area about four and one-half miles from the launching site.

Missile Roars on Stereo Tape

by James and Darleen Bornemann

... making the recording was troublesome, but to these two enthusiasts it was worth it.

In three years of stereophonic tape recording, we have discovered the most awesome sound conceivable. It was picked up some four miles from an Atlas launching pad at Cape Canaveral, Florida. What follows is a narrative of the first stereo recording of an ICBM blast-off.

It was over a year ago while watching TV about the Gasparilla Day Festival in Tampa, Florida, that Darleen and I decided to try taking a Florida adventure in stereo sound. We also wanted sounds from the Everglade, Bok Singing Tower, the Parrott Jungle, and possibly a rocket from Cape Canaveral.

A list of all the necessary recording equipment and supplies needed for eating and sleeping for two weeks in our station wagon told us we would have to use all of our available space. A tubular and sheet metal rack over our bed held necessary luggage and mike stands. For our AC power, we

had to mount another 12 volt battery under the hood of the car to obtain 24 volts for the dynamotor which supplied us 110 volts, 400 watts at 60 cycles. The two batteries hooked in series for the dynamotor would only last two hours or so. We would keep the batteries hooked in parallel while driving so our car generator would recharge them. The dynamotor has a frequency meter for accurate 60 cycle power necessary for hysteresis motor drive tape recorders. Not having enough room to take our Stereo Ampex 350, we had to buy a portable 601-2 Ampex. With several hundred feet of cables for our two U-47 Telefunken mikes crammed into all available niches, added to our cooking and sleeping equipment and 100 pounds of canned goods, our car really groaned.

We arrived in Tampa on February 10, 1958, Gasparilla Day, the noisiest celebration one could possibly record with

bands playing, cannons shooting and thousands screaming. We also recorded a zoo and bird farm while in Tampa.

Our next stop was the Bok Singing Tower near Lake Wales. Luckily it was Lincoln's birthday with a special concert. It was a pleasure to record out in this isolated spot.

Our interest in the Florida Symphony Orchestra took us to Orlando. We enjoyed a Gala Concert too beautiful to describe. The next day we met the orchestra's manager whose sincere hospitality showed us one of the reasons why this orchestra has such zealous supporters. They seem to do miracles for financially backing their orchestra. Telling him of our desire to record a missile, he called a friend at the Cape who would try to get us in. After meeting several of the officers at the air base, they explained that a government bus is the only transportation allowed for outside individuals such as the press, TV, etc. It takes everyone to a building which is 8700 feet from the launching pad. We would have had to load all of our equipment on this bus. The reporters and camera men set up their cameras on the building's roof to get the firing of the missile. The officers and reporters who we talked to all agreed that at this building the sound is earth shaking. We wisely decided that our microphones could not reproduce this tremendous sound. The closest nonrestricted area is about four and one half miles from the launching site and about one and one half miles from the nearest road. Darleen and I found that this road runs perpendicular to the ocean and stops on a bluff above the beach. After seeing several cars stuck in the sand and finding out that the towing fee is \$25, we realized that we would have to carry all of our equipment on foot. From the beach we could view through our field glasses the missile towering in its gantry being readied to be fired the next day, Saturday, February 15th. Viewing the missile for the first time was an awesome experience. When we saw that huge Atlas towering 70 feet into the sky, we realized that this was not like anything we had ever imagined. We were so excited that we could scarcely eat our supper. Camping at Cocoa Beach that night, trying to get to sleep was even more troublesome for we both tossed and turned with fantastic dreams of this huge missile streaking along the beach chasing after us. This seemed an endless night. Warily we saw the dawn of an exciting day. But

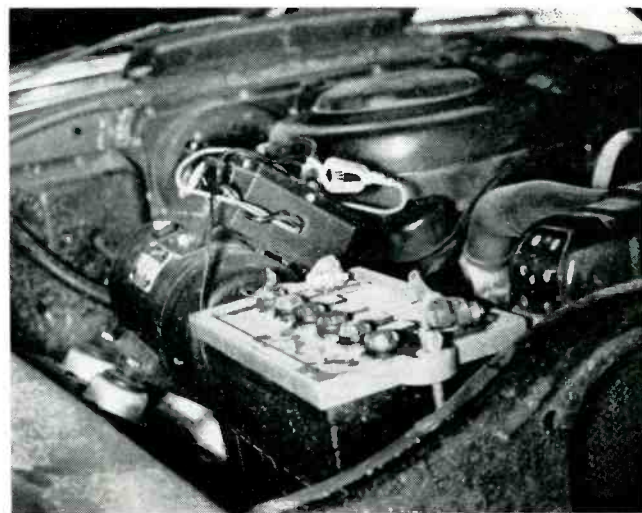


Every available niche in the authors' station wagon was crammed full. Together with their Ampex recorder, they took along several hundred feet of cables, two Telefunken mikes and stands, cooking and sleeping equipment and 100 pounds of canned goods.

it started to rain and all we could do was sit and hope. Now we wondered if they would still launch the missile. For many hours we just sat and waited until the weather cleared. Gradually the missile came into view now standing unsupported against the gray sky. Our excitement really zoomed for we could see the white vapors streaming from the nose cone which meant the missile could be fired within two hours. Hurriedly we began unloading our equipment. Four helpful spectators volunteered to carry some of it. The poor souls didn't realize how far along the beach we intended to go. The 65 pound generator in one hand and a 50 pound battery in the other made me sink into the sand above my shoes, but I was determined to make it.

We set up our equipment about a mile from the car and started recording on the tape. The missile was located on a large triangular shaped land area jutting out into the ocean. From where we stood, the missile was about 30 degrees over to our right when facing the firing area. We figured it was about to blast off any minute now for vapors had been visible for over two hours. "The Beast," as it is called, was now shiny white with frost from the liquid oxygen. All of a sudden, the moment arrived which we had been waiting for, when the vapors stopped trailing from the top. It was only seconds before the blast-off. A ball of steam mushroomed from the base of the missile where water was cooling the firing pad from the heat of the rocket engines. But the steam disappeared and it took our dreams along with it, for there stood our two million dollar monster cold and dead and silent. We learned many hours later that due to technical difficulties, the engines had to be turned off at the last second. Sadly we started to pack up. We took down our microphones which were on stands 12 feet high. Our cooperative spectators had mysteriously disappeared and left us alone with the task of carrying all of our equipment back to our car. We had a total of 380 some pounds to move for almost a mile. This took about two and one half hours and when we finally collapsed on our sandy mattress in the back of our station wagon, it was another two hours before we painfully moved.

Figuring that they would not try again on Sunday, we drove to St. Augustine, an interesting historical city, but found nothing to record there. Monday, on our way back



For AC power, another 12-volt battery was mounted under the hood of the car to obtain 24 volts for the dynamotor which supplied 110 volts, 400 watts at 60 cycles. The two batteries were hooked in parallel while driving so the car generator would recharge them.



Left: James Bornemann adjusts one of the Telefunken mikes. Right: Handkerchiefs were tied over the microphones to cut down wind noise. The Telefunken's were spaced about 18 feet apart, parallel with the ocean, and back about 50 feet from the water.

to Cape Canaveral, we recorded the Nascar Time Trials at Daytona Beach. Checking back in Canaveral, we found they were still working on the Atlas so we drove down to Miami and then on down to the Everglade National Park. Because of the unseasonably cold weather, finding wildlife to record was difficult. We figured our missile should be ready for firing Thursday or Friday, so Wednesday night we returned to our "Cape Canaveral Restless Sleeping Grounds." We knew that Thursday would be our last chance to get our recording before we would have to start for home.

How could we get farther up the beach with our car so that we wouldn't have to carry everything on foot without getting stuck in the sand? My stomach seemed to be bothered more with these problems than my brain. We considered buying long wide wooden planks to shuffle along with the car but this would have been slow and tedious and necessitate backing up a mile and a half to return. The next morning we decided to examine the beach more carefully. The bluff above the beach was packed with dense underbrush but we found the surface to be harder. To our surprise, there were some old tire tracks leading into the brush. I felt that if our speed was great enough, we could crash our way through the brambles for at least a mile and a half. So with throttle practically on the floor, we bashed our way through this obstacle course. We spun our car around some bushes and got back on to our own tracks where we could park.

After beating a path through the brush to the beach with our mikes and stands and recorder, we started our setup operation. We left our generator and batteries in the car and ran the cable about 150 feet to the equipment on the beach. Our Telefunken's were spaced about 18 feet apart, parallel with the ocean and back about 50 feet from the water. We tied handkerchiefs over the microphones to cut down wind noise. Once our tape equipment was running, I put on my stereophonic earphones and, to my horror,

one channel was dead. Reversing the earphone plugs, one earphone had also failed. Checking further, I discovered one Telefunken was not working. The threaded cable connector was the culprit. Sand lodged in the threads prevented it from turning and no connection was being made. Even vise-grip pliers failed to move the nut. To add to our frustration, we knew only minutes remained to fix the nut. It seemed so hopeless. After all this work and preparation to make this one recording, we could lose it in the last few seconds.

In wild desperation, I disassembled the pivoting yoke which allows the microphone to tip, put the slot in the yoke around the metal legs of my folding stool and with the vise-grip pliers gave a hardy twist. A crunching sound made me realize that I was twisting the five small prongs in their sockets rather than the nut locked on the threads. I figured that the plastic parts on the inside had broken and that our recording would be lost and our \$400 mike seriously damaged. A final check on the dead channel made me jump for joy. Somehow, in breaking the plastic parts, the prongs made contact and our mike was working as good as new. After hurriedly replacing the mike on its stand, and starting the tape running, I grabbed my folding stool and with my binoculars ran over to the water's edge. Before I could even sit down, I saw the huge cloud of steam engulf the missile. I raced back to the input controls on the recorder, trying to watch the sound level meters and the missile too. For about 15 seconds the missile is held down to build up its maximum thrust. The "Monster" with a long firey tongue began slowly climbing into the sky. Now our meter pointers were climbing with the sound. The thundering roar shook the very earth, and our volume controls were almost down to zero while the pointers were nearly in the danger area.

I had to laugh when I noticed my wife running around in circles, her hands clasped over her ears trying to shut out the terrifying noise. She reminded me of an ostrich trying to find a place in the sand to bury her head, for it seemed the missile was heading right for us. Within seconds it faded from sight.

Though the recording time was less than three minutes from the first clouds of steam until the missile disappeared out over the ocean, Darleen and I both agreed that this experience was worth all of our efforts and we then danced with joy on the beach of Cape Canaveral.

NEW PRODUCT REPORT



TANDBERG STEREO

... three speed recorder with stereo playback and automatic shutoff. Amplifiers built in recorder case.

If the old adage "Good goods come in small packages" is true then the Tandberg Model 3 Recorder with stereo playback certainly qualifies.

The unit measures 15 x 11 $\frac{5}{8}$ x 6 $\frac{5}{8}$ inches in size and weighs only 24 pounds. It draws only 75 watts, which makes it practical for operation from power packs and inverters.

Because it is a European machine (Norway) and because the voltages on the continent vary so widely, it will use any of 6 different voltages from 110 to 245 AC simply by adjusting the tap on the power transformer. For 50 cycle operation, only a pulley change is needed.

It has three speeds, 1 $\frac{7}{8}$, 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ inches per second which may be changed while the recorder is running.

On the left of the case is a small lever which controls the bass response. Putting this in bass position boosts the low notes by at least 12 db. Our tests revealed this to be accurate.

One of the most unusual features on the recorder is the speaker monitor switch located at the top of the case be-

tween the reels. This switch controls the small speaker in the set, which is stated in the instruction book to be designed for a limited range of tones only. It goes on to state, "musical programs of especially high quality should be reproduced through a larger hi-fi loudspeaker, or the speaker of a good radio." This is true of most recorders.

The monitor switch will connect the upper track to the speaker, the lower track or no track at all. This arrangement permits using the speaker as a third speaker for stereo play if desired or for playing non-standard tapes recorded on continental recorders which record on the bottom track and cause consternation on standard U. S. machines. The Tandberg records on the top track, as do other recorders.

The recorder also has an automatic shutoff device which is actuated by a metallic strip placed near the end of the tape. When this makes contact with the post and its contact on the right side of the recorder, the tape motion is automatically stopped. This works in either fast forward or rewind as well as in play.

STAFKSTED

Product: Tandberg Stereo Model 3

*Distributor: Tandberg
10 E. 52nd Street, New York,
N. Y.*

*Price: Recorder \$369.50, with
two speakers \$469.95*

The stereo head is in-line with a .0025 inch gap. In addition to stereo tapes, the recorder will also play back half track and full track tapes. Cross-talk between the two halves of the head is better than 60 db.

The recorder may also be used as a public address unit and the amplifier has a frequency response of 30 to 20,000 cps, plus or minus 2 db. Our tests found this figure to be correct.

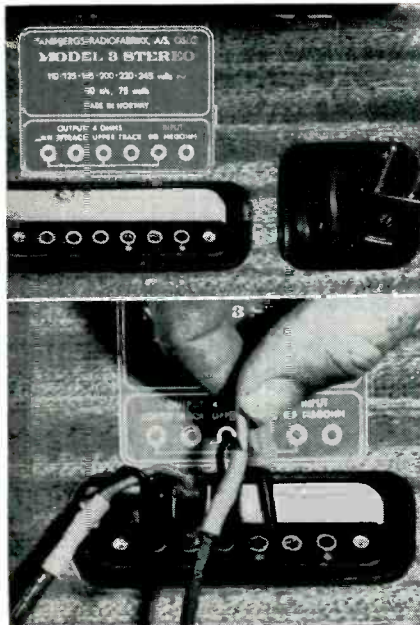
Because the two stereo amplifiers are contained in the case of the recorder and are controlled from the same volume control it is necessary that they be balanced. The specifications claim less than 2 db difference. The tests showed this to be the case. Because of the amount of feedback used, tube wear will not affect the balance of the speakers.

The terminal block for connections to and from the recorder is on the back of the machine and cords with alligator clips are furnished. Terminals are for the speakers or earphones or for a connection to a radio, phono or TV set. The mike plugs in on the deck and it is possible to mix sound coming into the mike with that coming in from a radio or TV.

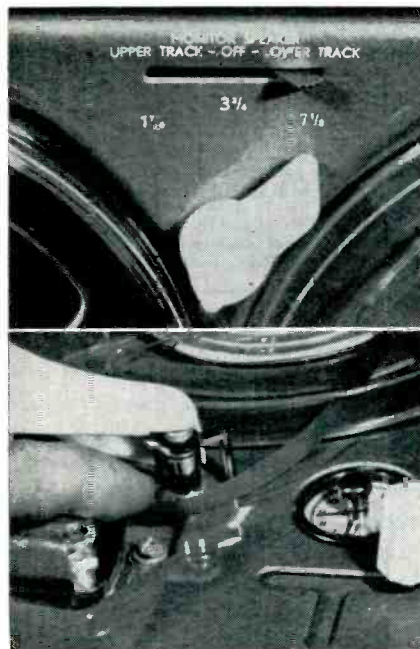
The output power is 3 watts on each amplifier for stereo. The amplifiers may be worked together for monaural play-



The recorder is housed in a tan carrying case. The entire top is removable for operating the recorder. Sponge rubber pads hold the reels in place when lid is closed.



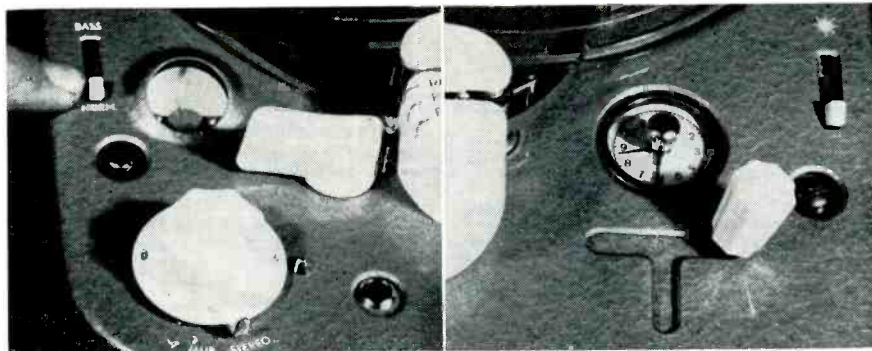
Upper: the jack panel on the rear of the recorder. At the right can be seen the well into which the line cord packs when not in use. Jacks are plainly labeled. Lower: plugs inserted into proper jacks for playing stereo.



Top: Speed control lever sets speeds, either 1 7/8 inches per second, 3 3/4 or 7 1/2. Small lever at top controls monitor speaker which may play either track. Lower: If metallized strip is placed on end of tape this automatic shutoff will stop the recorder when the metal spot passes over the post and its contact.



The recorder will operate on a number of different voltages from 110 to 245. Adjustment is made on the rear of the recorder.



Left: the left-hand side of the recorder showing the mike input jack, volume control knob, function lever, magic eye level meter, tone control lever and the stereo/monaural switch. Right: right-hand side showing counter, forward, rewind and play/record levers and the on-off switch.

back in which case 6 watts output can be obtained. This may seem small compared to some of the power amplifiers of 50 watts now on the market but when turned on full, the Tandberg can drive you out of the room with volume.

The speakers measure approximately 14 x 22 x 10 inches and are beautifully finished, as is the recorder. They are small enough to fit into a bookcase and light enough to be transported, if desired.

A note in the Tandberg instruction book, which is very complete, is of interest to all stereo owners. It concerns the proper phasing of stereo speakers.

If the two loudspeakers were connected to one pair of terminals it would be possible for the diaphragm of one to be moving in one direction while that of the other moves in the opposite direction. If the speakers are placed close together this will be especially detrimental to the bass notes, which will be reduced in volume. Therefore, when hooking up for stereo be sure the polarity of the speakers is right. To do this, hook up the two speakers so that they are playing from the same track, place them close together and note if the bass is bad. If so, reverse the polarity of one and the bass notes will be properly reproduced.

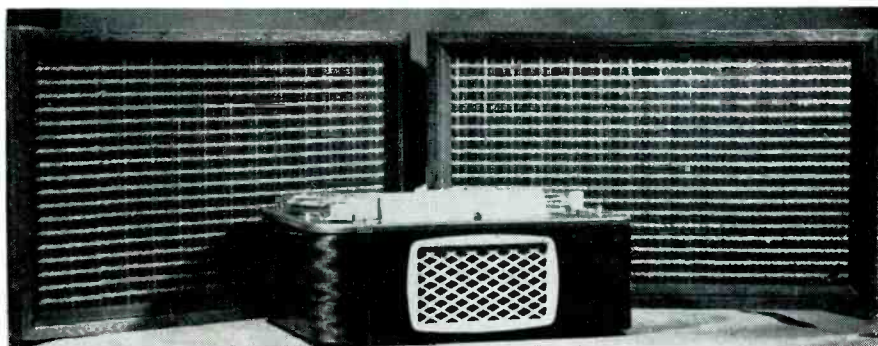
The frequency response of the recorder at all three speeds was satisfactory and, at the 7 1/2 ips speed it qualified for AAA program requirements. Tests were made with the bass boost in position which brought the 30 cycle bottom within limits.

Unlike most recorders, the carrying case is separate from the recorder itself and may be removed completely from it when the machine is used in the home. Sponge rubber pads in the lid of the case press on the reels to hold them in place when the recorder is carried about.

For monaural playback, the small lever found beneath the volume control knob is placed in monaural position. For stereo play, it is placed in the stereo position.

Record level control is by means of a magic eye which is shock mounted. Recording is done by placing the record lever in record position and pulling down the tape motion lever. This provides a positive interlock to prevent accidental erasure.

Our tests revealed this to be a machine of high quality, well built and capable of giving satisfactory service. It is externally attractive and the electronics are very good. It merits your consideration.



The complete stereo outfit including two matched speakers in beautifully finished wood cases. The speaker cases measure about one by two feet by 10 inches and can be carried in a car quite easily along with the recorder for setting up in a friend's home or other location.

SHOP OR SWAP

Advertising in this section is open to both amateur and commercial ads. HI-FI TAPE RECORDING does not guarantee any offer advertised in this column and all swaps, etc., are strictly between individuals.

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ANY 1200' TAPE DUPLICATED—One or both tracks, monaural or stereo. \$5.00 per reel postpaid if check accompanies order. Send master and instructions to W. A. Yoder Company, 714 N. Cleveland Street, Richmond, Virginia.

LEARN WHILE ASLEEP with your recorder. Amazing 100-page book gives full instructions. \$2.00. Satisfaction guaranteed. Sleep-Learning Research Association, Box 24-TR, Olympia, Washington.

PHONOGRAPH RECORDS PRIOR 1940 wanted. Also records, dubs, tapes of voices of people of interest, from newsreels, movie shorts, air, radio, past or present, all types, also army-navy transcription shows; movie trailers. Jacob S. Schneider, 109 W. 83, N.Y.C.

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V-M 711 STEREO, EXCELLENT condition. Play both stacked and staggered stereo tapes. Record and playback monaurally in high-fidelity, only \$149. Also, Eico Model HF12, 12-watt integrated high-fidelity amplifier. (Factory-wired). \$29.95. Also excellent condition. Chester Sample, 2505 Saratoga Ave., Cleveland 9, Ohio.

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LEARN HYPNOTISM, SELF-HYPNOSIS from recorded tapes! Other helpful "Mind-Power" Tapes, Books, Recordings! Free Catalog. Write, Philanthropic Library, Drawer TR697, Ruidoso, New Mexico.

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DISPOSING: Berlant Preamp, heads; Astatic, E-V, RCA mikes, Bell T-200 recorder; details, wants: Fritz Tonne, 4465 N. 149, Brookfield, Wis.

HI-FI TAPE RECORDING, music lover desires to exchange or sell audio equipment, stereo tapes, etc. . . with same. Jean Simard, 28 Ave. Vieux Moulin, Giffard, Quebec 5, P.Q., Canada.

MINIFON-Pocket size, wire recorder, like new. Complete, excellent for secret recording and detective work, with all deluxe accessories. Crystal microphone, stetoset ear phones, 1/2 hour and 2 1/2 hours recording wire, plus wrist watch microphone, AC power supply, auto 6-12 volt, connecting cord, two leather carrying cases. Operates either battery, AC 110 or 220 volts or auto—6 or 12 volt. Cost over \$410. First \$200 gets this bargain. Morris Maynor, Jr., P.O. Box 368, Atlanta, Texas.

TO BUY OR TRADE — Am looking for record-playback preamp for Berlant tape machine. Want to convert 2nd channel to record-playback stereo. Give details. Dr. O. Lee Ricker, 406 Loraine Bldg., Grand Rapids, Mich.

TAPE RECORDER AND Hi-Fi systems and components tested and repaired. (Nuttall's) High Fidelity Laboratory, 5511 Sussex Street, Shreveport, La.

TAPESPENDENTS WANTED—Hypnotism; Philosophy; Abnormal Psychology; pro or con the feminism theory; Intellectuals — invited to swap tapes with E. S. Faith, 20584 Eastwood Road, Cleveland 26, Ohio.

BARGAINS FOR SALE: Hammond Model "J" Solovox, Zenith oceanic short wave, Chapelvox transcription system 16", 33 and 78 speed Jensen auditorium 13", 3" VC speaker. Need Ampex 600 or Berlant recorder. D'Artridge Organ System Co., 2631 Menlo Avenue, Los Angeles 7, California.

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LOS ANGELES, CALIFORNIA, MAGNEMITE Owner: I'd like to rent a 15 ips or 7 1/2 ips recorder for two days. If you don't care to rent your equipment, I'll pay you to do the recording during your spare time. Jim Jones, DUNKirk 5-1224.

STEREO TAPE RENTALS. For the very best at lowest prices, write: California Taped Music Assn., 1971 Cordilleras Road, Redwood City, California.

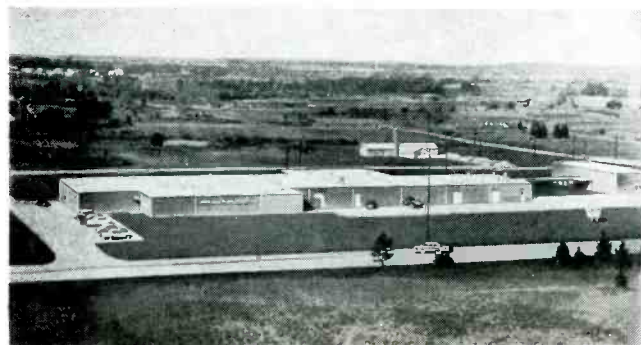
NEWS BRIEFS

New Orradio Plant

WITH CBS newscaster Douglas Edwards as master of ceremonies, Orradio Industries, makers of Irish tape opened their new half-million dollar plant at Opelika, Alabama.

Situated on the site of a former prisoner-of-war camp outside the city of Opelika, the plant is completely controlled as to dust, humidity and temperature. The workrooms, for instance, have a slightly higher air pressure than outside so that dust cannot blow in.

Opening day featured addresses by local celebrities as well as by Senator Sparkman and founder J. Herbert Orr. Local folks swelled the opening day crowd to about 500 persons



who were taken on conducted tours of the plant from the ball mills, where the oxide is ground to the packing room where the reels were put in their boxes. No visitors were permitted in the actual workrooms as they would have brought in dust with them but they could observe the various processes, except coating, through the windows.

The oxide is mixed with the plastic coating and solvents in a separate building and is piped into the coating room to avoid the risk of fire or explosion. After coating, the tape, about 18 inches in width, passes through a long drying oven and into the slitting room where it is cut to the desired widths, from the standard 1/4 inch tape used on regular recorders to the 2 inch wide video tape.

The ceremonies were video taped on the machine in the plant and then played back through monitor sets in the lobby immediately following the dedication.

Pentron Bows Stereo Recorder

Pentron Corporation will have a recorder capable of both recording and playing back stereo by late summer, it was learned today. The machine will be known as the Emperor II, model NL-4. It will sell for about \$325 with two mikes and will include two 10 watt amplifiers in the case. External speakers must be used with it although the speakers built in the recorder may be used for ordinary play or monitoring purposes.

FOR YOUR AUDIO BOOKSHELF



YOUR TAPE RECORDER

by Robert and Mary Marshall

This is the first book for nonprofessional users and includes the photographs and specifications of 55 recorders as a guide to selecting the proper machine for various uses. The book does not deal with technicalities. It was written after some 2500 experiments had been conducted, using recorders in the fields of education, camps, meetings, business and the home. Part of the book is devoted to an explanation of hi-fi principles and terminology.

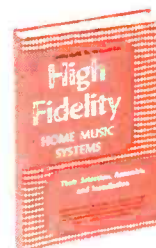
5 1/8" x 8", cloth bound, 288 pp. Illustrated.

\$4.95

HIGH FIDELITY HOME MUSIC SYSTEMS

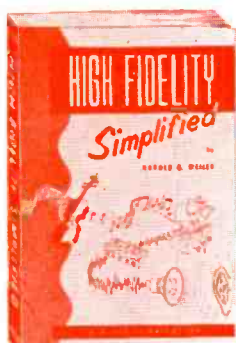
by William R. Wellman

The book describes the functions of each unit of a home music system, giving advice on the good and bad features of various kinds of units. Chapters include: An Introduction to High Fidelity, Loudspeakers, Loudspeaker Enclosures, Record Players, Radio Tuners, Tape Recorders, Amplifiers, etc. Also included are plans for installing a home music system.



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HIGH FIDELITY SIMPLIFIED

by Harold D. Weiler

This book has sold more than 65,000 copies and is one of the most popular books on the subject. It covers the How, What, Why and Where of Hi-Fi. Sound, Acoustics, The Simple Loudspeaker, The High-Fidelity Loudspeaker, Loudspeaker Enclosures, The Basic Amplifier, The Amplifier, The Record Player, Tuners, Use of a Home Music System, and Tape Recorders. It is illustrated with numerous drawings, charts and pictures. While authoritative, it is written in an easy-to-read style.

5 1/2" x 8 1/2", paper bound, 208 pp. Illustrated.

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HOW TO MAKE GOOD TAPE RECORDINGS

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

A complete handbook of tape recording containing 150 pages of up-to-the-minute information of practical value to every tape recordist. Easy reading for the most inexperienced of home recordists.

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