

HI-FI

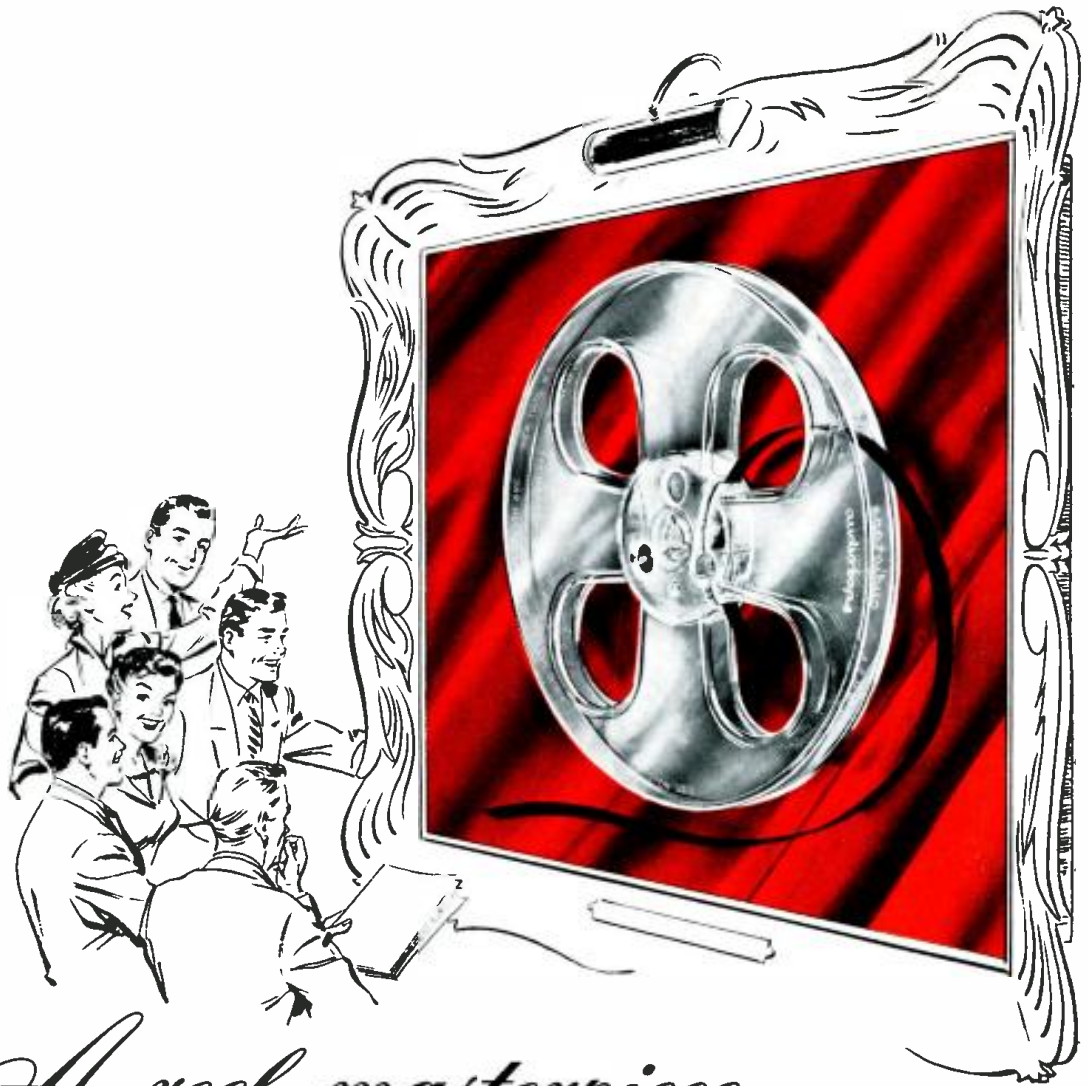
# TAPE RECORDING

WORLD'S LEADING RECORDING MAGAZINE



September, 1957

35c



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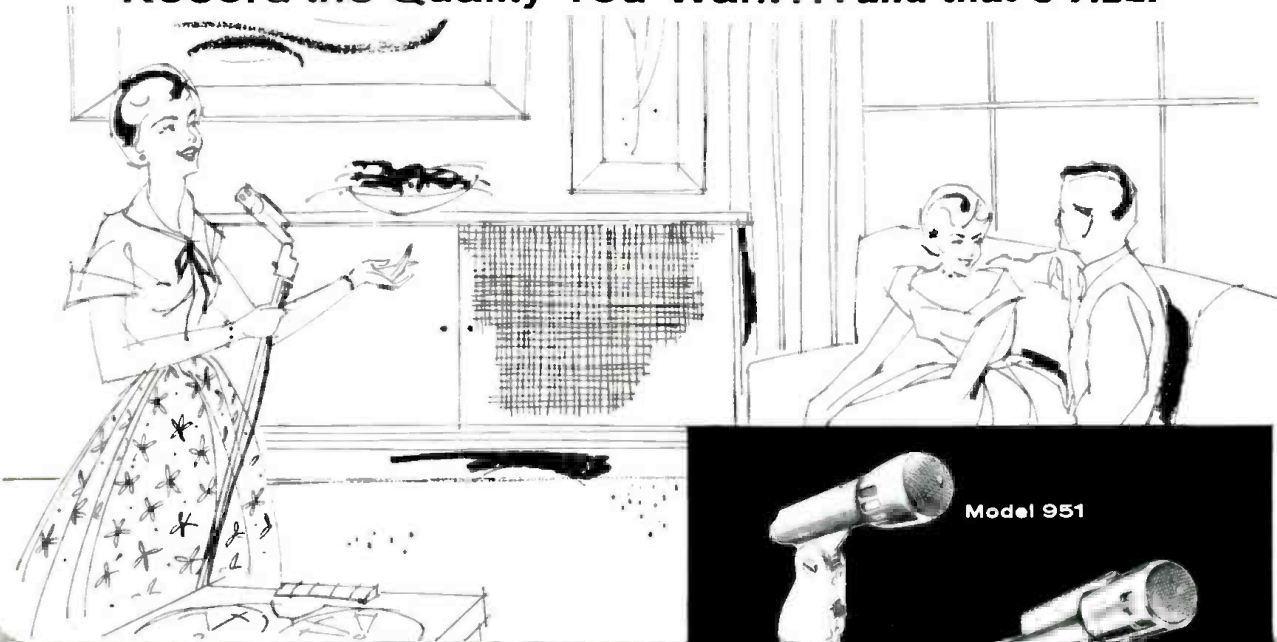
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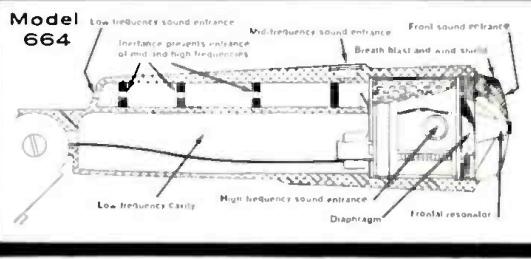
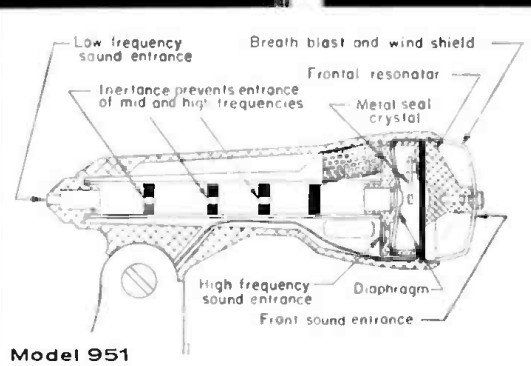
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HI-FI

# TAPE RECORDING

VOL. 4 No. 10

SEPTEMBER 1957

MARK MOONEY, JR.  
*Editor and Publisher*

JOHN L. ALLEN  
*Circulation Manager*

JEAN COVER  
*Assistant Editor*

ROBERT W. LAPHAM  
*Art Director*

JAMES H. MILLS, SR.  
*Technical Consultant*

ANTHONY J. MORIN, JR.  
*National Advertising Manager*  
274 Madison Ave., New York 16, N. Y.

GEORGIE SIGSBEE  
*Music Editor*

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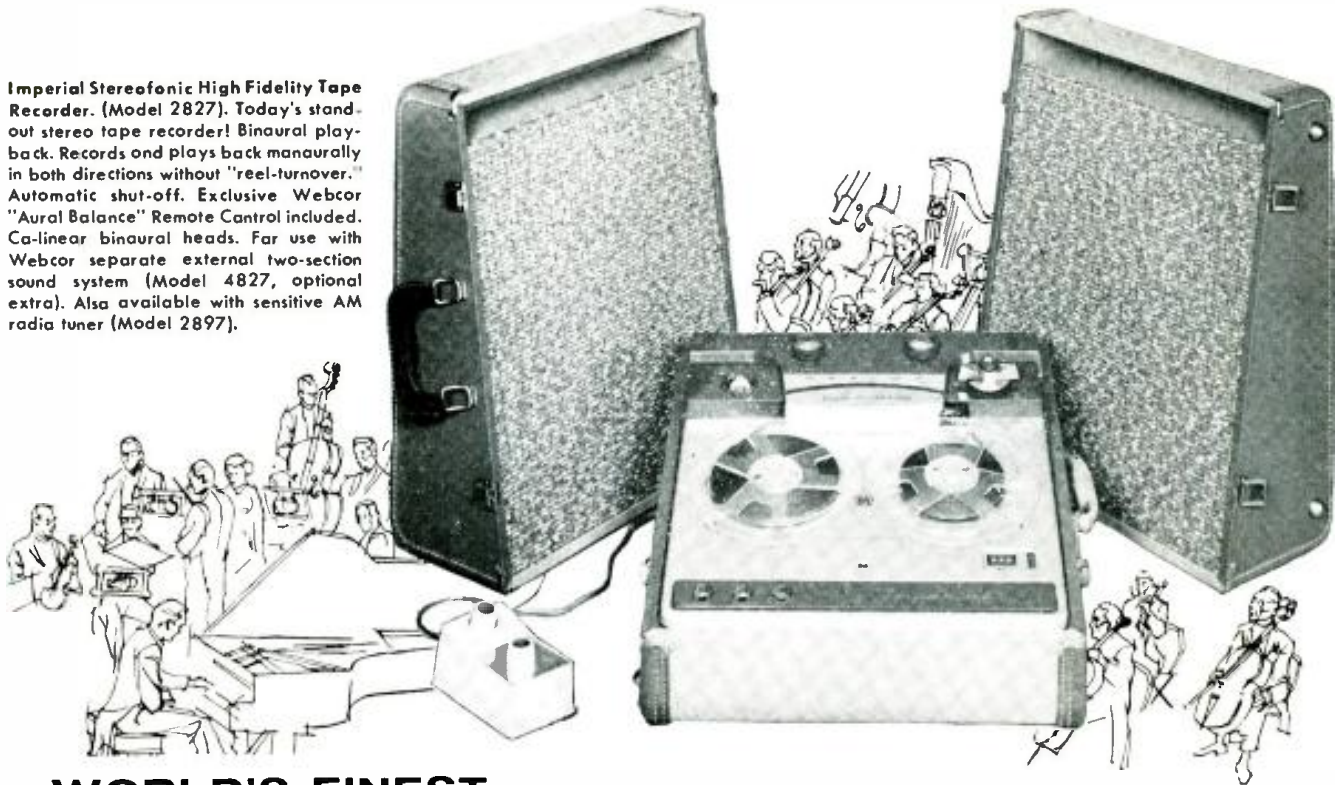
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# NEW TAPES

By Georgie Sigsbee

## CLASSICAL

### SONATA BEETHOVEN

Sonata No. 23, in F Minor, Op. 57 ("Appassionata")

Sonata No. 8, in C Minor, Op. 13 ("Pathétique")

Artur Schnabel, Pianist

RCA CC-39

Monaural \$10.95

Superb.

### CONCERTO

#### BEETHOVEN

Concerto for Violin in D Major, Op. 61

Jascha Heifetz, Violinist

Boston Symphony Orchestra

Charles Munch, Conductor

RCA FCS-24

Stereo, Stacked \$16.95

Like a rare old wine this reading of "the greatest of violin concertos" runs high in a monetary respect but unlike a bottle of special vintage you can constantly and indefinitely refill your cup with this exquisite music, and as you sip you will experience the joy expressed of old in "my cup runneth over."

#### MOZART

Clarinet Concerto in A, KV 622

Horn Concerto No. 2 in E-flat, KV 417

Oboe Concerto in C, KV 314

Bassoon Concerto in B-flat, KV 191

OMEGATAPE 9005, Serie Elan

Monaural...\$14.95

The four concertos recorded here cover the entire period of Mozart's output for solo winds. These concertos for solo winds were composed on order for virtuoso friends, and Mozart gave them exceeding care and attention. The understanding, variety and high quality he gave when composing for each solo instrument is phenomenal.

The Clarinet Concerto was composed in 1791 just two months before Mozart's death. The Horn Concerto is one of his four for that instrument and was composed in the 1780's. The Oboe Concerto, composed in 1778, was not published in its true form until 1919. The original manuscript was lost and a later version for flute (Flute Concerto No. 2 transposed from C to D) is the source from which the original work has been reconstructed. Mozart composed the Bassoon Concerto in 1774 when he was only 18.

Not listed on the box but found at the end of the reel (and on label of same) is the Masonic Funeral Music, K 477.

The solo performers are unnamed and this, I think, is a shame because they are very fine artists. Mr. Paumgartner, a well-known Mozartean, and his orchestra do an exceedingly fine job. The clarity of the instruments is sonically superior.

After listening to these concertos I feel somewhat like Mozart's friend, Dittersdorf, who wrote, "I have never yet met with a composer who had such an amazing wealth of ideas; I could almost wish he were not so lavish in using them. He leaves his hearer out of breath; for hardly has he grasped one beautiful thought when one of greater fascination dispels the first, and this goes on throughout, so that in the end it is impossible to retain any of these beautiful melodies."

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Orpheus in the Underworld Overture, New Pizzicato Polka, etc by Vienna State Opera Orch.  
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### OPERETTA LEHAR

The Merry Widow

- Orchestral Introduction
- Now You Come
- Please Gentlemen
- I Go to the Maxim
- "Vilja" Song
- Dance Song
- Silly, Silly Rider
- Dance Scene

Do You See the Little Pavilion?

- How You Treat the Women
- Dance-Siren Waltz
- Yes, We Are the Grisets of the Cabarets
- Merry Widow Waltz
- Lips Keep Silent
- Yes, the Study of the Women is Difficult

Friedl Loor  
Karl Terkal  
Mimi Engela-Coertse  
Vienna State Opera Chorus and Orchestra

LIVINGSTON AUDIO PRODUCTS CORP. Box 202 CALDWELL, N. J.



Hans Hegen, Conductor  
OMEGATAPE ST-3011

Stereo, Stacked or Staggered... \$14.95

This light, melodious music—filled with spontaneity and joie de vivre—provides some pleasant, invigorating musical moments for the listener.

Franz Lehar (1870-1948) won his greatest approbation in the field of light opera after the "Merry Widow" was first produced in 1905. Although he found his success in this and other operettas, such as the "Count of Luxembourg," he also composed marches, sonatas, dance music, a violin concerto, etc. The folk-tune music which flows throughout the "Merry Widow" reflects his Austro-Hungarian environment.

Miss Loor sings the role of the wealthy widow "Hanna Glawari" while Mr. Terkal represents her old friend "Prince Danilo." Miss Engela-Coertse is "Camille" a young wife who is becoming romantically entangled and whom the widow befriends.

The sweet, lyrical voice of Miss Loor again wins my acclaim. (See OMEGATAPE ST-3009, August 1957.) Here, again, the performances are rendered in German. Since there is no breakdown as to what is being sung except on the reel label, I have taken the space to list the selections so that you may clip and place them in a convenient spot. Enclosed with the tape you will find annotations on the composer as well as background on the operetta.

The orchestra and chorus perform with facility. This stereo recording was made in Vienna and is well-engineered.

#### ORCHESTRAL

STRAUSS, Richard

Till Eulenspiegel's Merry Pranks, Op. 28  
Vienna Philharmonic Orchestra

Fritz Reiner, Conductor

RCA ACS-27

Stereo, Stacked... \$6.95

Each year from 1895 to 1898 Richard Strauss produced a new tone poem of which "Till" was the first. In one way this tape is also a first, since it is the primary recording combining the talents of Mr. Reiner and the Vienna Philharmonic. It is interesting to note that both the conductor and the orchestra have had personal association with the composer.

The execution of this score, which is based on the tale of a waggish rogue (who, incidentally, also is executed) is given a gay, lyrical touch by Mr. Reiner. The more dramatic, mischievous quality given the practical joker by Mr. Koussevitzky (on RCA disc) has long rated high on my list but Mr. Reiner's vitality also shines through and, coupled with stereo sound, the tape brings into sharp focus the wide variety of colorful orchestration in this work.

An excellent recording.

#### RESPIGHI

The Pines... The Fountains of Rome

NBC Symphony Orchestra

Arturo Toscanini, Conductor

RCA BC-51

Monaural... \$8.95

These descriptive symphonic poems by Ottorino Respighi are given the Maestro's full, bold, dramatic treatment. Toscanini has had a close association with these

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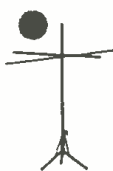
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works from their first public airings. He conducted the first U. S. performance of "The Pines" in 1926 and directed the Italian premiere of "The Fountains" in 1918.

My personal preference, between the two compositions, has always been "The Fountains," although, except for the opening, I find "The Pines" paint an agreeable musical picture.

The sound is good. If you prefer your tonal colors in strong, splashing hues, and not pastels, then Toscanini is your man. THE MUSIC OF THE BACH FAMILY . . .

### Volume II

Bach, Carl Philipp Emanuel (1714-1788)

Symphony in E-minor

Bach, Wilhelm Friedemann

Lamentabile and Presto, from Sonata in F-minor for two flutes

Bach, Wilhelm Friedrich Ernst

Sextet in E-flat major

BOSTON (Livingston) BO 7-7 BN

Stereo, Staggered or Staggered . . . \$11.95

This is the second volume in the BOSTON tape series dedicated to music of the prolific Bach clan and I find I'll have to order Mr. Geiringer's book, "Music of the Bach Family" to help guide and inform me about these unfamiliar works.

C. P. E. Bach, second son of Johann Sebastian, is represented here by a graceful, poetic composition for the strings which is performed by the Zimmler Sinfonetta, Richard Burgin conducting. I question that this is a symphony, if so it is but the first movement (or so I feel). It seems more like a first movement to one of his sonatas for harpsichord. I have been able to dig up but a few clues. On the box they list Daniel Pinkham as harpsichordist and for the life of me I do not hear this instrument. C. P. E. Bach, often spoken of as the Father of the Sonata (modern sonata), was well known for his harpsichord sonatas. He composed seventy for this instrument alone. In the sonata and symphony he adopted the *three movement* plan of the Italian Overture, building the first movement to even greater musical importance than ever before. This ten-minute work, which is beautifully performed, is filled with rich violin and cello displays and is of happy, cheerful mean. With only the scant liner notes to help, I find that my curiosity is getting the better of me. These works, so far, have proven a delightful experience and I want to know more about them and the men who composed them.

The two movements of W. F. Bach's (J. S. Bach's eldest son) duet for flutes, as played by flutists Doriot A. Dwyer and Phillip Kaplan, is enchanting. The lucid wind tones and fine stereo effect is impressive to hear.

The sprightly, charming Sextet is a blend of harmonious instrumentation, skillfully played by Gino Cioffi, clarinet; Harold Meek and Harry Shapiro, horns; Robert Brink, violin; Joseph de Pasquale, viola; and Samuel Mayes, cellist. This vivacious piece exhibits some excellent horn work and highlights Mr. Cioffi's expert touch with the clarinet. I thought of this more as a composition for clarinet with marvelous backing provided by the other instruments.

Judging from the first two volumes

this series will prove to be both fascinating and, for me, educational. I find that traveling these new paths in this wonderful world of music has a highly exhilarating effect.

The fidelity is sheer beauty.

### ORGAN

ORGAN RECITAL (Volume 2)

Passacaglia in C-minor, J. S. Bach

Sonata No. 1 in F-minor,

Felix Mendelssohn

Professor Kurt Rapf, Organist

LIVINGSTON 712-BN

Stereo, Staggered (also Stacked) . . . \$11.95

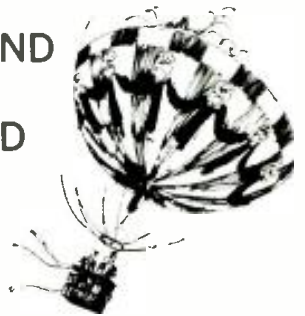
The first volume of Mr. Rapf's organ recitals was first received last year (Audio-sphere label, #711-BN, April 1956). This second volume arrived in a box marked "stacked" and contained a tape marked "staggered." Once the machine was properly set up for the latter (initially I took the box marking too literally and a prompt investigation proved necessary) I found there were still problems. On my copy (especially during the first ½ inch of the tape) there persists an erratic quality, a lack of homogenous sound which tends to frustrate. Further into the recording the wonderful sounds emanating from Vienna's old Piaristenkirche organ give a terrific audio impact. On this tape there is more of a stereo effect than I have ever heard on any organ recording. It is prevalent on the #711 but more pronounced on #712. The engineers must have set their mikes close enough to the pipes to get a distinct, separated effect much of the time. My advice is to get well back in the room to have it reach you in a more blended way.

Viennese Kurt Rapf has accomplished much in his thirty-five years. He is a pianist, conductor, organist and teacher. He may be familiar to many here in the States through his two tours (1954, 1956) with the Vienna String Symphony, which he founded in 1945. At present he is Director of Music for the city of Innsbruck in charge of their symphony orchestra and Conservatory.

As to his interpretations of the compositions on this tape, I would go along with

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THE  
WORLD  
IN  
80  
DAYS



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912 17th St., N.E., Cedar Rapids, Iowa

the review of #711 in which it was stated he gives "straight-sided interpretation" and "literal" performance. The Bach selection seems to be a somewhat laborious task for Mr. Rapf while he seems more at ease with the Mendelssohn.

Overall the clarity of this organ reproduction is something to hear.

#### RELIGIOUS

THE STORY OF THE BIRTH OF JESUS  
and

THE SERMON ON THE MOUNT

Read by Alexander Scourby

OMEGATAPE 10002

Monaural . . . \$9.95

The Story of the Birth of Jesus, as presented in this reading, is composed of pertinent passages from the Gospels of Matthew, Luke and John. They are so arranged as to constitute a chronological and continuous narrative. The text used is taken from the Authorized King James Version and is read without alterations or omissions. In the re-arrangement of the text the original elements thereof are not lost and further enhancement is gained.

The Sermon on the Mount covers the Fifth, Sixth and Seventh Chapters of the Gospel According to St. Matthew. It is read in its entirety.

Mr. Scourby gives a most qualified reading of the Story of the Birth of Jesus but it is in his reading of the Sermon on the Mount that I find his delivery even more expressive and inspired. His phrasing, intonation and diction are excellent.

Alexander Scourby has had considerable experience in the field of narrative and his fine voice lends added emphasis to the written word. He has made many recordings for the Talking Books for the Blind and has also recorded the entire Bible for the American Bible Society. He has shown achievement as a narrator in radio and for documentary films.

This tape would be wonderful for the bedridden, for the blind, for Biblical students and Bible classes of the church, as well as for those who derive pleasure from having someone read to them.

Omega has another "lectern" tape available—#10001—in which Mr. Scourby reads selections from The Psalms (reviewed by the Editor, December 1956). I think it would also be of interest to have tapes of Mr. Scourby reciting poetry.

The fidelity is clear and true.

#### POPULAR SHOW MUSIC

MELACHRINO ON BROADWAY

Selections from "My Fair Lady"

and other great show hits

Melachrino Orchestra conducted by George

Melachrino

RCA CP-52

Monaural . . . \$10.95

Track I is devoted to hit tunes from seven musical comedies. Among those represented are "Guys and Dolls," "South Pacific," and "Pajama Game." Track II is given over to one of the latest Broadway successes, "My Fair Lady." Melachrino presents these selections most satisfactorily.

employing a succulent style with the usual overabundance of string work.

The spirited "There Is Nothing Like A Dame," the south-of-the-border beat applied to "Whatever Lola Wants," and a good piano solo in "If I Loved You," are examples of what you will hear.

Top fidelity.

#### AROUND THE WORLD IN 80 DAYS

Around the World (Part I)

Passepartout

Paris Arrival

Sky Symphony

Invitation to a Bull Fight

Entrance of the Bull March

India Country Side

Around the World (Part II)

The Pagoda of Pillagi

Temple of Dawn

Prairie Sail Car

Land Ho

Epilogue

#### OMEGA ORCHESTRA

Hans Hagen, conductor

OMEGATAPE ST-3012

Stereo, Stacked or Staggered . . . \$14.95

Here is another tape (Bel Canto #20, August 1957) of the musical score from the Verne, Perelman, Todd, Young movie spectacular. Hagen does not overplay the "Around the World" theme. He manages to give short intros to Part I and II and lends added color to the theme in "Sky Symphony" by the use of a guitar. However, in "Temple of Dawn" the Bel Canto offering achieves a better interpretation of the dawn. This Omega tape cuts the "Land Ho" selection to 1½ minutes less than the Bel Canto, thus alleviating that drawn-out effect about which I complained.

This orchestra seems smaller and, though perhaps not as colossal in sound as the BC recording, comes up with a less smothering effect. The good arrangements and method of presentation caused me to prefer this tape.

#### RODGERS AND HAMMERSTEIN II

Oklahoma/Carousel Suites

Morton Gould and his Orchestra

RCA CC-37

Monaural . . . \$10.95

In this recording, the scores of these two shows have been given orchestral settings by Mr. Gould. The "Oklahoma" suite contains four movements; the "Carousel," five. Each retains the essence and flavor of the shows—which I find to be most agreeable.

The highly-talented Mr. Gould produces a thoroughly enjoyable recording of the delightful music of Messrs. R. and H.

Keen sound.

#### OKLAHOMA

New World Theater Orchestra

SYMPHONY FOR BLUES

Hamburg Philharmonia Orchestra

BEL CANTO #13

Stereo, Stacked or Staggered . . . \$9.95

The New World Theater Orchestra presents a symphonic impression of Robert Russell Bennett's arrangements of hit tunes from "Oklahoma." They do an adequate, but not particularly impressive, job.

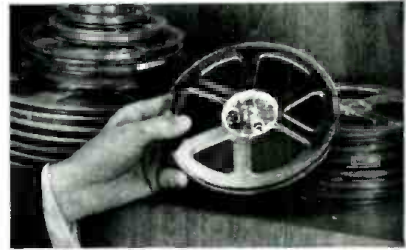
"Symphony for Blues," which is the original work of Joseph Kuhn, uses vari-



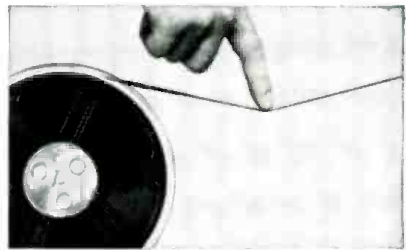
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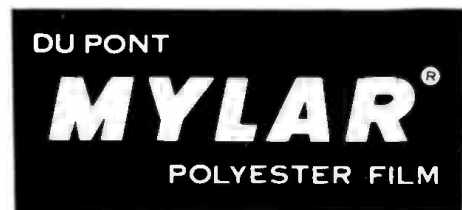
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ous blues themes, and with the aid of the Hamburg Philharmonia, they give a full-blown, spread out version of the score. There is some brief sax, clarinet, piano and drum work which is very good. The composition doesn't "send" me but I've found some who like it very much.

A good stereo recording.

### LENA HORNE AT THE WALDORF

ASTORIA

Today I Love Everybody  
Let Me Love You  
Mood Indigo  
I'm Beginning to see the Light  
Honeysuckle Rose  
Day In—Day Out  
New Fangled Tango  
I Love to Love

Nat Brandwynne's Orchestra  
conducted by Lennie Hayton  
RCA CPS-71

Stereo, Stacked ... \$10.95

This gal has what it takes. Her highly specialized styling and vibrant personality brings added "oomph" to any song she sings. In five of the tunes the piano and bass serve as accompaniment and further highlight the intimacy Lena Horne can impart. Noteworthy are her vocal interpretations of "Mood Indigo" and "Honeysuckle Rose." The last two selections have colorful, risqué lyrics.

This recording was made on February 20, 1957 at the Empire Room at the Waldorf Astoria during one of her performances. The stereo effect is not too noticeable except when the entire orchestra gets into the act but the sound is clear and full-range.

### EXOTIC LANDS

Theme from Prince Igor  
Scheherazade  
Song of India  
Arab Dance  
Drifting Sampans  
On the Road to Mandalay  
Street in Singapore  
Kashmiri Song

Paris Theatre Orchestra  
Henri Gaste, conductor  
BEL CANTO #11

Stereo, Stacked or Staggered . \$11.95

There is an ample supply of singing strings and percussive effects in these modernized, lush arrangements. Succumbing completely to the smooth "mood" treatment currently so popular, Monsieur Gaste gives a dreamy waltz tempo to "Scheherazade" and renders lavish performances of "Drifting Sampans" and "Street in Singapore." The "Kashmiri Song" opens with the sounds of birds and, on my copy, closes with the sounds of fluctuation. Except for this small defect, this is technically an excellent stereo recording.

### DREAMS BY THE DOZEN

Nameless Orchestra  
Conducted by Walter Scharf  
BEL CANTO #10

Stereo, Stacked or Staggered . \$11.95

The numbers on this tape are musical portraits of 12 female names, i.e., Mary, Becky, Hortense (this name can inspire!?), etc. All this is written, orchestrated and conducted by Walter Scharf and an orchestra performing incognito.

The piano solos are furnished by Harry Sukman.

The notes on the box state . . . "We must admit that this is sort of a musical game. . . ." . . . it is, too, for it depends on whether you read across or up and down as to what name goes with what selection. There is no label on the reel to guide you.

Mr. Scharf has worked for many movie companies producing and directing musicals. He is now working on his 208th picture. With this background he has conjured up some musical fluff which is, as I hear it, just background stuff.

Fidelity passes with flying colors.

### TENDERLY

Tenderly  
After My Laughter Came Tears  
Conversations  
Sometimes I'm Happy  
Butterfly  
One For My Baby  
The Wail  
Come By Sunday  
I Cover the Waterfront  
I Was Doing All Right  
Every Now and Then  
I've Had My Moments

Norene Tate, vocalist

ELEKTRA (Livingston) EL 7-1 BN

Stereo, Stacked or Staggered ... \$11.95

Miss Tate has been singing in night-clubs for the past twenty years. Taking the womanly prerogative of keeping her age a secret, she is quoted as saying she is "ageless." Her voice is not, however, as it has a tremolo which oddly enough is rather effective in these blues numbers. Overall, she has pretty fine control and the perceptible variation is not as predominant as, say, when Ethel Waters sings. Miss Tate has an easy, intimate style and her low, husky voice seems made for late hours in a dimly-lit club. Her delivery of "The Wail" is particularly good.

Accompaniment is furnished by Issac Royal at the piano and Josh White's old friends, Al Hall (bass) and Sonny Greer (drums).

Spotless fidelity.

### HONKY TONK

If I Had You  
Stumblin'  
Coquette  
You Came to Me  
Bye Bye Blues  
Down South  
Oye Negra  
Gay Ranchero

Bill Austin Combo

STEREOPHONY, INC. B-1205

Stereo, Stacked or Staggered.. \$7.95

This combo consists of Bill Austin at the piano, an accordionist, a guitar-banjo

## APHRO-DISIA

APHRO-DISIA  
IN STEREO  
Bob Romeo  
featuring  
Laurindo  
Almeida



**Omegalape**

player, a bass man, and a drummer.

To my way of thinking the album has been given a misnomer. It is far from what I think of as "honky tonk," rather it is steady, easy-to-listen-to music until the banjo takes over in the fast, well-arranged "Bye Bye Blues" and "Down South." This is followed by some highly-animated drum, piano and castanet work in "Oye Negra."

The guitar-banjo work is excellent. The accordionist comes in for second-billing insofar as solo spots are concerned.

This is a well-knit aggregation, working together in close harmony with good net results.

Clear, sharp fidelity.

#### MUSIC FOR LOVERS ALONE

The Lamp is Low  
My Reverie  
Stranger in Paradise  
This Is My Beloved  
The Story of a Starry Night  
Lonely

Blues to Remember

Bobby Hammack, pianist

OMEGATAPE ST-2015

Stereo, Stacked or Staggered... \$11.95

Hammack sits at the keyboard and quietly serves up some soothing deliveries of some modernized classics and then closes the recording with two original compositions.

Hammack, who hails from Texas and is in his mid-thirties, has worked with combos, full bands (Crosby, Osborne, Nichols), on TV shows, and has also done a great deal of arranging and composing. He plays the piano in an easy style.

This is a good tape. It gives a break from the usual string-orchestra background music and yet provides the "talking over" (and/or through) or "just listening to" aspect which seems quite a selling factor these days.

Piano reproduction is pure.

#### SONGS BY THE SONGFELLOWS, Vol. II

Tumblin' Tumbleweed  
Mood Indigo  
Tornado  
You're Driving Me Crazy  
By the Light of the Silvery Moon  
Cuddle Up a Little Closer  
Jingle Bells

STEREOPHONY, INC. A-1165

Stereo, Stacked or Staggered, 5 inch reel  
\$6.95

The four Songfellows and Miss Lucia Thorne have sung together for almost twenty years. Their voices blend well in a rather bland style. Miss Thorne does solo work in two of the numbers. A change of pace is afforded by a brisk rendition of "Tornado" and the unseasonal "Jingle Bells." The former is interesting; the latter, well, I can only say that I've heard better versions.

The accompaniment is furnished by a piano, a string-bass and drums.

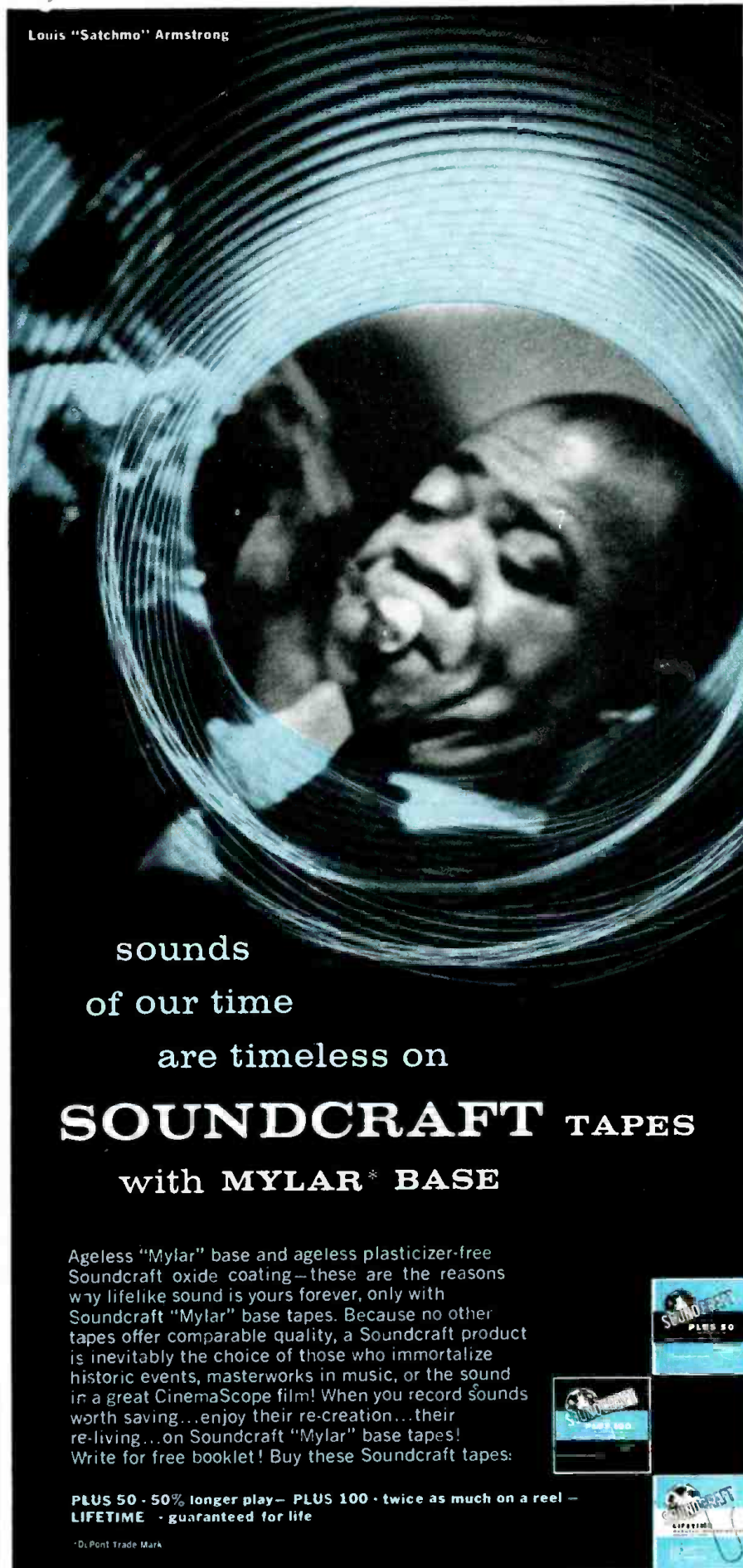
Clear fidelity.

#### JAZZ

##### DOC EVANS PLAYS DIXIE IN STEREO

Maryland, My Maryland  
Perdido Street Blues  
Four or Five Times  
Muskrat Ramble  
Original Dixieland One-Step

Louis "Satchmo" Armstrong

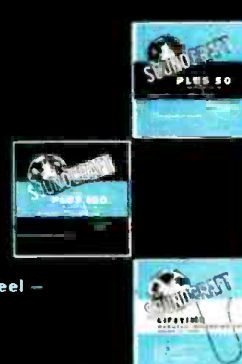


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Oh Didn't He Ramble  
STEREOPHONY, INC. B-1215  
Stereo, Stacked or Staggered . \$7.95

In this recording Paul "Doc" Evans and his ensemble create a sparkling bit of Dixieland atmosphere. The production is effective too. The tape opens with the band playing right in front of you, then they march on down the street and come back again. At the end of the tape they fade away and off the scene.

This is heartily recommended to fans of the New Orleans jazz style. It is played, and recorded, in accomplished fashion.

#### BEAUTY AND THE BEAT

The Girl Friend  
Linda  
Miss Annabelle Lee  
Mandy Is Two  
Alice Blue Gown  
Mickey  
Calico Sal  
Sweet Lorraine  
Lulu's Back in Town  
Sweet Substitute  
You Must Have Been A Beautiful Baby  
Rose of Washington Square  
Bob Scobey's Frisco Jazz Band with  
Clancy Hayes

RCA AP-51  
Monaural... \$6.95

Since 1949 this band, under the leadership of Scobey, has steadily become increasingly popular and you will hear why when you listen to the solid-packed rhythms put forth by this group. On this recording the normal seven-man lineup of Scobeyites has been augmented by an equal amount of good jazzmen.

Matty Marlock's arrangements are good and his clarinet work is notable on such numbers as "Linda" and "Sweet Lorraine." I am presuming he takes these solo bits but it could well be that they are shared by Bill Napier or, for that matter, Wayne Songer. The trombone work of Abe Lincoln in "Mandy Is Two" and "Sweet Substitute" is well done. Here, again, I am assuming that Lincoln has the spotlight over the other three trombonists. Scobey handles the trumpet in a skillful manner. On six of the 12 numbers Clancy Hayes vocalizes and I found myself preferring the purely instrumental selections.

#### MISCELLANEOUS SHOWCASE FOR SYMPHONIC BAND

Carnival Variations  
Latin Lament  
Swingin' Reel  
Night Clouds  
Juba Dance  
Autumn Beguine  
Pastels  
Jubilee  
El Dorado  
Proud Heritage  
Chicago Symphonic Band  
Herman Clebanoff, Conductor  
STEREOPHONY, INC. C-1415  
Stereo, Stacked or Staggered ... \$7.95

This is the premiere recording of ten original, and very excellent, contemporary compositions. This band was especially organized for this recording and comprises key personnel of the Chicago Symphony Orchestra's wind section plus a goodly crew of other musicians. At the helm is Mr. Clebanoff who is concert-master of the

Chicago NBC Orchestra.

In playing selections ranging from beguine and waltz tempo to concert march, this band really sounds out. "Night Clouds," "Jubilee," and "Proud Heritage" rated high with me. The latter makes quite a finale... catch the reverberation time at the end.

The recording was made in the large Universal Recording Company studio in Chicago and the reproduced sound is above par. This is a fresh, stimulating tape of band music.

#### COUNTRY MUSIC

##### STEREO FOR HILLBILLIES

Little Brown Jug  
Clarinet Polka  
There's a Tavern in the Town  
Ta Ra Ra Boom de Ay  
Hot Time in the Old Town  
Yellow Rose of Texas  
Old Zip Coon  
Arkansas Traveler  
Irish Jig  
Irish Washerwoman  
Pop Goes the Weasel  
Chicken Reel  
Big Garred Mule  
Beakin' Ice  
Old Joe Clark  
Bury Me Not On the Lone Prairie  
Carry Me Back to Old Virginny

Warren Baker's Little Band

##### OMEGATAPE ST-2013

Stereo, Stacked or Staggered... \$11.95

Even if you are not addicted to hillbilly-country music, you may find this a very pleasant, foot-tapping bit of entertainment.

The banjo, drums, and fiddle stand out until the last two numbers. They keep a steady beat that is good for square dancing or doing a jig. The entire band gives a slow jazz-beat arrangement of the cowboy lament "Bury Me Not On the Lone Prairie." The tape ends with a brief snatch of "Carry Me Back..." where the ocarina is in the solo spot.

This is not a loud, raucous recording. The fidelity is very good.

#### NOVELTY

##### CLEAR THE GRID!

Heavy Iron in Stereo  
OMEGATAPE ST-2010  
Stereo, Stacked or Staggered... \$11.95

This is a stereo recording, made on January 20, 1957, of the 3rd running of the Pomona Road Races. Cars race in, across, and out of the room. There is plenty of noise and, consequently, the narration is often incoherent. Perhaps it is fortunate there isn't too much dialogue. If you like the sound of motors, here is a tape that certainly provides it.

I wondered what one could do with such a tape other than having it on hand to demonstrate, by way of a new gimmick, the stereo rig. It could be used as a weapon to break up your social life, especially if the hour is late since it would also serve to replace your outgoing guests with incoming complaints. I am thinking of sending it to the Editor to play around deadline for background atmosphere or maybe I'll send it on to my brother-in-law, who indulges in car racing as an avocation, to play on rainy days.

Oh well... clear the grid!



# TAKE 1 by the Editors

Just returned from the National Association of Music Merchants Convention where we had the pleasure of serving as a member of the "record" panel. Needless to say the SRO audience at the session heard about tape from us.

Two new recorded tape firms made their bow at the show: Hallmark Tapes and Stere-o-Tone, both of New York.

Hallmark, whose offices will be at 383 Concord Avenue, New York 54, will have a line of pop releases. The first twelve are already available and include such items as "Tribute to Tommy Dorsey," "Square Dances with Calls," "Waltz Time in Vienna," "Strictly from Dixie" etc. The firm plans to release about a dozen new tapes per month. All the tapes are stereo and each box has a Kodachrome color cover. The reels are full 7" with 30 minutes of music on each. The price per reel is \$9.95.

Stere-o-Tone, 1650 Broadway, New York, displayed their new line for the first time. It includes ten tapes on 7" reels at \$10.95. All are pop releases including "Bud Freeman and His Group," "Pee Wee Plays," featuring Pee Wee Russel who appeared at the recent Newport Jazz Festival, etc.

Capitol Records has also announced its entry into the tape field with thirteen releases including in the pop field Nat King Cole, Stan Kenton and Fred Waring. In the classics four tapes by the Hollywood Bowl Symphony Orchestra, and three others.

One thing which impressed us at the convention was that, for the first time, the record-music dealer was displaying a real interest in tape. Perhaps the day is not far off when every store will stock a good selection.

Webcor showed its new line of recorders with stereo playback, and V-M its new console which sells for \$1000. This includes a tape recorder, with inline or staggered stereo at the flick of a switch, a radio and a record changer, making it a complete music center.

Ampex likewise had all its stereo and music center consoles on display.

We also met S. I. Neiman who manages the Hi-Fi show to be held at the Palmer House September 13 to 15. He told us that the theme of the show this year will be "The Magic of Tape." The show will have a stereo concert hall in addition to a complete exhibit of the entire magnetic recording industry. More on this next month.

### Industry Loses Pioneer

One of the leaders in the magnetic recording industry, Kjell Gaarder, formerly in the Executive Research Engineering division of V-M Corporation, succumbed to a heart attack on June 23. Mr. Gaarder was a crusader in perfecting high fidelity musical reproduction equipment, including machines for stereophonic reproduction. He was active in the Magnetic Recording Industry Association, The Insruture of Radio Engineers, and the Armed Forces Communications Association. Highly respected, Kjell Gaarder was a favorite among his fellow workers, and will not be forgotten for his contributions to the industry.



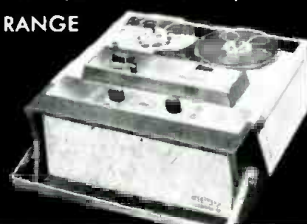
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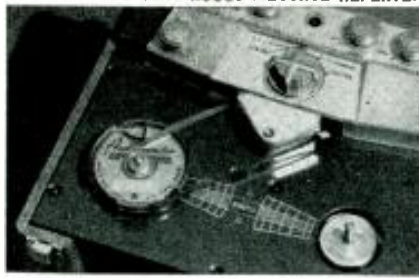
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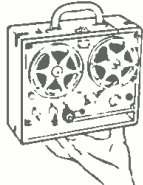
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## TEEN TAPERS

BY JERRY HEISLER, National President



It seems that the hobbies of photography and tape recording seem to go well together. Most camera stores sell recorders and tape, and a good number of recordists also have a considerable amount of photographic equipment. That the two hobbies are compatible is not really hard to understand. Sound movies are much preferred to silent, and often a musical background is desirable for a slide show. With this being the case, and with the writer being an avid recordist and photographer, we thought it would be interesting this month to explore some of the possibilities of using tape and pictures together.

One of the first projects of this type that I ever tried was to make a sound track for a movie the family had of a trip to California. To make this semi-synchronized recording for the film I employed the following method. The film was first completely edited and spliced the way I wanted it. I then ran it through watching for the parts where talking would be needed as well as for parts where only a musical background would be desirable. I noted on paper where the various parts would be inserted. Once I had the idea of how the sound track would work out, I selected some suitable recordings from my record collection. Your own sense of judgment must apply here as to which music would be the best. I then ran the movie through again playing the records and trying to narrate the film as I went, practicing also fading the music under the talking. Once I had the real "feel" of the thing, I wrote out a script of the talking that I would use.

Now I was ready to roll. I readied the phonograph, seated myself before my microphone, and began the recorder and the projector, inserting my comments on the family trip as the movie progressed. I found at the end that some of the talking overlapped into other scenes, while some was too short. I adjusted my script and started over again, this time finishing almost perfectly. One other touch that helped was to mark my film at the point the recording was to start. This was done by making a hole in the film with a straight pin so that when the film was shown a white dot would appear on the screen indicating that the recorder should be turned on.

It will also be helpful to occasionally regulate the speed of the projector if the tape seems to be ahead or behind the film.

The Revere Camera Company and Minnesota Mining & Manufacturing Company have collaborated on a tape called "Synchro-tape" which features a special stroboscopic backing and a mirror attachment for the camera which helps keep the synchronization nearly perfect. Our tape recording was made with regular tape and was very satisfactory.

You might want to get out some of the

family movies, work up some talking, music, and sound effects, and see what you can do. If you are very ambitious, you might try making your own film and sound. If you use titles don't forget to give yourself credit by making a title saying "Sound track by . . .". This makes movies look mighty professional.

For those of you who prefer to take slides rather than movies, your recorder can still come in very handy. You have the advantage of having perfect timing at your disposal since in this case the recorder leads the way with the slides changing according to the sound. To add sound to your slide show, you first get your slides in the order that you want them and number them that way. You then run through the slides working out your commentary as you proceed. It is best in this case to write a definite script. When you are ready to begin the recording, project your first slide, begin talking and recording. When you have finished the speech for the first slide, make some sort of sound such as hitting a glass with a spoon, clicking your fingers, or some similar sound. This indicates in subsequent showings that the slide should be changed. Proceed this way right through to the end.

If you find the sound of the click objectionable you might note on your script certain key words so that when you hear these words you change the slide. This will make it necessary for you to use the script with each show. You may also leave a pause of a few seconds in your speech which will indicate the change of slide.

If you take neither movies nor slides, you still aren't left out. Almost everyone takes snapshots. You can make a sound accompaniment to your picture album. All that is necessary here is to mount your pictures attractively in an album, and make a narration and musical tape for them. Simply leaf through your album and comment as you go.

These uses of recorders together with cameras can provide many happy hours of entertainment for an individual, a family, or a group. I recently made a complete movie and sound track with a group of friends for presentation at a party. We had a lot of fun making it and even more fun in seeing our finished product on the screen. We had several speaking parts and at times it looked like the person on the screen was actually talking such as in a sound film.

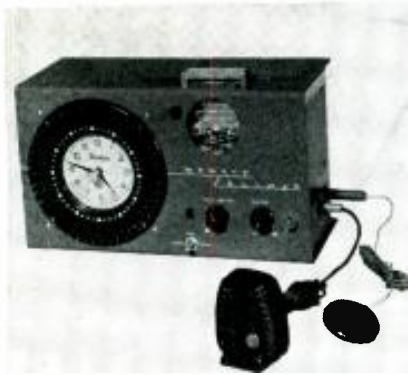
Moviemakers will also enjoy collecting sound effects, and other novelty items for use in future productions.

The camera and the recorder go well together and if you are fortunate enough to own both a tape machine and a camera of some type, try using them together. You'll enjoy it.



# NEW PRODUCTS

## MEMORY TRAINER



Modernophone, Inc., 30 Rockefeller Plaza, New York 20, N. Y. is marketing the Dormiphone Memory Trainer. This is a unique, specially designed instrument using self-contained cartridges of magnetic tape. Cartridges are available in a variety of time sequences for different needs. This device instantly records and plays back through a built-in speaker. It will continue repeating while you sleep, without disturbing you. The machine can be operated with time-control or manually, and it can be set for single or continuous play. The Memory Trainer comes complete with an automatic clock, under-pillow speaker, microphone and extra custom transcription cord, which permits you to record directly from your phonograph. For price and additional details, contact the manufacturer.

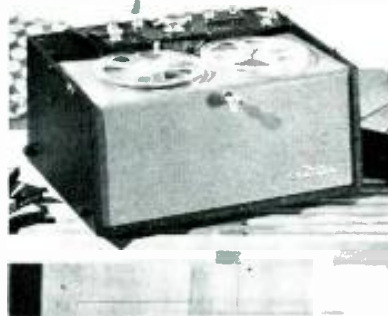
## HI-FI HEADPHONES



General Phones Corp., 5711 Howe Street, Pittsburgh 32, Pa., is marketing their model CLC-M high fidelity headphones. Features of these headphones include 3.2, 8-16, 50 ohms impedance; response of 30-16,000 cps flat; and absolute dynamic range. To monitor high grade tape recorders, stereophonic or standard, determine load impedance in front end and use transformer of high quality to match this on the primary, and the secondary is to be 50 ohms. The phone required is the General CLC-B-50, priced at \$30. For additional information and price of the CLC-M high fidelity headphones, contact the General Phones Corp.



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ALLIED CATALOG**



Buying guide to everything in electronics, including all equipment for the tape recorderist: complete recorders, basic mechanisms, amplifiers, mixers, mikes, heads, phone pickups, tape, splicers, and accessories. Write for your FREE copy of the 1958 ALLIED Catalog.

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Chicago 80, Ill.

**NEW MAGNECORD CITATION**



MagneCORD, 1101 S. Kilbourn Avenue, Chicago 24, Ill., has introduced the new lightweight N 35-B Citation recorder. This smartly styled machine has tape speeds of 3 1/4 and 7 1/2 ips; frequency response at 3 3/4 ips—plus or minus 2 db, 50-5,000 cps, extended range to 7,000 cycles, and at 7 1/2 ips—plus or minus 2 db, 50-10,000 cps, extended range to 12,000 cycles; 45 db signal to noise ratio; less than .3% flutter; and it weighs approximately 40 lbs. The N 35-B also has a storage compartment, an illuminated V.U. meter, and a power amplifier, speaker and microphone. It is priced at \$299.95. For additional information, write to MagneCORD.

**REVERE STEREO KIT**

Revere Camera Company, 320 East 21st St., Chicago 16, Ill. is now marketing its SK-707 Stereo Head Kit, which converts all later Revere recorders to stereophonic playback and monaural recording. It is adaptable to models T-11, T-10, TR-20, T-700 and D, TR-800 and D, T-900, TR-1000, T-1100, and TR-1200. Installation is simply made by removing the original equipment sound head and plugging in the Revere SK-707 stereo unit. Upper channel then operates as a record-erase-playback head, through the tape recorder amplifier in the same manner as the replaced head. Lower channel is high impedance, with a cable, designed to plug directly into magnetic phono or tape input of a hi-fi preamplifier. This kit is priced at \$34.50. For more details, contact Revere Camera Company.

**ITALIAN RECORDER**



A new portable tape recorder which fits the hand has been introduced in North America by American GeloSO Electronics, Inc., 312 Seventh Ave., New York. The unit is manufactured by Societa per Azioni GeloSO, Milan, and it is known as model G-255/S. Included among its features are speeds of 3 1/4 or 1 7/8 ips; dual track recording; rewind and playback; fast forward; volume level indicator; output jack for ear-phones; external speaker or power amplifier; input jack; universal adjustment for line voltages from 110 to 220 V; and it includes a microphone, tape, take-up reel and cordovan finish carrying case. This machine retails for \$179.95. For additional information, write to American GeloSO Electronics.

**TURNER MIKE**



The Turner Company, Cedar Rapids, Iowa, has announced a new dynamic microphone, Model 139, with multi-impedance transformer. It has a response of 60-10,000 cps; and level of -52 db at high impedance. The head tilts in a 90° arc; and it is complete with a 20-ft. balanced line low capacity cable set—3-pin polarized locking connector. 50, 200, 500 ohms or high impedance is selected by turning the built-in switch on the back of the microphone. List price for the Model 139 is \$45.00, Model S139, with on-off switch, is \$49.00. Matching G-8 stand lists at \$8.00. For additional information, contact the manufacturer.



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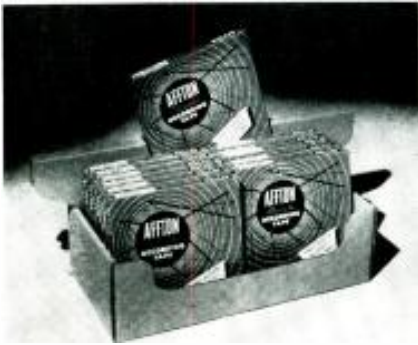
City \_\_\_\_\_ State \_\_\_\_\_

**ATR INVERTER**



American Television & Radio Co., 300 E. 4th Street, St. Paul 1, Minn., has announced a new line of Universal Inverters which are actually a combination of four inverter designs in one unit. ATR Universal Inverters are specially designed for operating standard AC tape recorders, TV sets, dictating machines, PA systems, record players, electric razors, vacuum cleaners, food mixers, electric drills, and many other items from DC voltages in automobiles, buses, trucks, boats, trains, planes, and DC districts. All ATR Universal Inverters provide 110 volts AC output at 60 cycles with output wattages ranging from 80 watts to 600 watts. No auxiliary power factor correction condensers are required. Complete descriptive is available by writing directly to the factory.

#### AFFTON TAPE



Affton Industries has announced the introduction of a new type recording base and oxide coating for magnetic recording tape. It is stronger than the plastics formerly used and has better weathering characteristics than standard base. The new oxide is fortified with a magnetic catalyst that allows for greater sound absorption and improved output. Further information can be obtained by writing Affton Industries, Department A, Valley Park, Missouri.

#### RENTAL LIBRARY

A new full 30-day rental plan for recorded stereophonic tapes is now available from Stereophonic Rental Library, Division of Donan Distributing Company, 5007 N. Kedzie Ave., Chicago 25, Illinois. These tapes can now be rented for 30 days at \$1.65 per tape—less than 6c per day. At the end of the 30-day period, you simply return the tapes and order out other tapes if you so wish. You can constantly have new selections to play. This plan enables you to listen to various recordings and then select the tapes you might wish to put into your permanent collection—you can try, before you buy. Write to the Stereophonic Rental Library for full details.

#### FREE BOOKLET

A four page article on "How to Edit Tape Recordings" is offered free by The Ercona Corporation, 551 Fifth Avenue New York, 17. Containing a wealth of practical information, the booklet may be had by anyone sending a self-addressed stamped envelope to the firm and asking for it. A self-addressed envelope *must* be sent.



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set that has a "phono jack." You just set up your Ampro recorder on one side of the room and plug the stereophonic lead into the "phono jack" of your TV or radio. Then you, too, can enjoy living presence sound . . . at a budget price!



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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:

Your reply to R.W.M., Atlanta, Ga., (July issue) regarding filing of tapes, should help him keep his tapes and boxes in proper order. However, one who has a collection as large as his, is confronted with another problem, that of finding the

reel he wants, quickly and without the necessity of reading titles on numerous boxes until the desired selection is located. It is obvious, therefore, that the labeling of boxes and reels in itself is not sufficient.

I have a labeling system somewhat similar to the one you suggest, which I supple-

mented by an "Index" and an "Inventory." Of course it took patience and time to install same, but I now see I could not get along without it. It enables me to locate any recording in a matter of just a few moments. If you think this would be of interest to your readers, here is how it works:

**LABELING:** (a) All my boxes are numbered and are at all times kept in numerical order. (b) The reel in each box has a corresponding number. I add "a" or "b" to the number to identify side 1 and side 2. Leader and trailer strips are likewise numbered. You will note that nothing but a number need appear on the box, reel and strips. Before a reel is returned to a box, I see that the number on the reel agrees with the number on the box. Side 1 of my take-up reel is marked "Take-up a" and side 2 is marked "Feed b." This is a precautionary measure so that the take-up reel is never placed in a box and always remains on the machine.

**INDEX:** An alphabetical index of all selections by title as well as by composer shows the reel number and side the recording is on.

**INVENTORY:** I use one sheet for each reel. The number on top of the sheet corresponds with the number on the reel. Upper half of sheet represents "side 1 of reel" and the lower half "side 2 of reel." These sheets are kept in numerical order. On these sheets I note any information I want with reference to the recording, such as when made, whether from radio, T.V., record or other source; the name of the artist or conductor and orchestra. If the tape contains more than one selection, I give the counter number where selection begins and ends.

I have eighty-four reels of tape (approximately 200 selections) and I find that a ring binder that holds sheet size 4¼ by 7¼ accommodates my index as well as all my inventory sheets.

What could be simpler than—1. Turn to the index which will direct you to 2. The proper box number which 3. Contains the reel the selection is on and 4. While listening to the play back, turn to the Inventory sheet for detailed data.—*Harry L. Sopbrin, New York.*

To the Editor:

Regarding reader Savage's letter in your July issue, why not have the local telephone directory divided into twenty different books, each containing names from A to Z . . . after all, one only phones a limited number of people. Tape clubs can still keep their individual traits and personalities. I simply suggest that one membership list be turned out by all clubs, so that a member of club A can talk with a member of club J without having to join ten clubs in order to do so.—*Lee Ellis.*

To the Editor:

Until just a few days ago I was unable to grasp just what stereophonic recording was all about. Then a friend put into my hands a copy of Hi-Fi Tape Recording magazine, which made the matter crystal clear. After having my mother read me (I am blind) the "Stereo, Why Bother?" article, I immediately took hold of its meaning.—*D. B. Johnson, Rock Hill, S. C.*

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# 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 am wondering if you can tell me how to step up the speed of a musical passage without distorting, even if I have to use two or three tape recorders to do it.

For example, if it takes two seconds for a musical passage on the tape, I would like the passage played in one second. I was told it couldn't be done but I don't believe it. Any advice you can give me, or the name of anyone who is in a position to tell me would be greatly appreciated.—C. C., Los Angeles, Cal.

**A**—Speech can be shortened by clipping out parts which do not add to the intelligibility and by eliminating pauses between words, etc. but with music, any tampering with the tempo will spoil the piece. If the tape is speeded up the pitch of all the notes will rise. If the duration of the individual pauses between notes is shortened or the notes themselves altered in length the character of the music would be changed. We have no idea of a method which could be used to speed up the playing time of a musical composition.

**Q**—I've noticed that a number of low-priced stereo tapes are coming out which offer music which I would like to have but apparently are not coming out in monaural. Suppose I wish to re-record this so as to make it monaural . . . is there any way to do this with good results? What would the result be if one side only were re-recorded. Suppose I only played one side on my monaural recorder—would the result be O.K.?

Suppose I obtain a stacked stereo head and connected both poles together—would the results be proper? Could you offer any means of getting a good reproduction without obtaining a stereo machine. I live in a trailer and room is of the essence. Two machines would be a calamity.—R. E. M., Lodi, N. J.

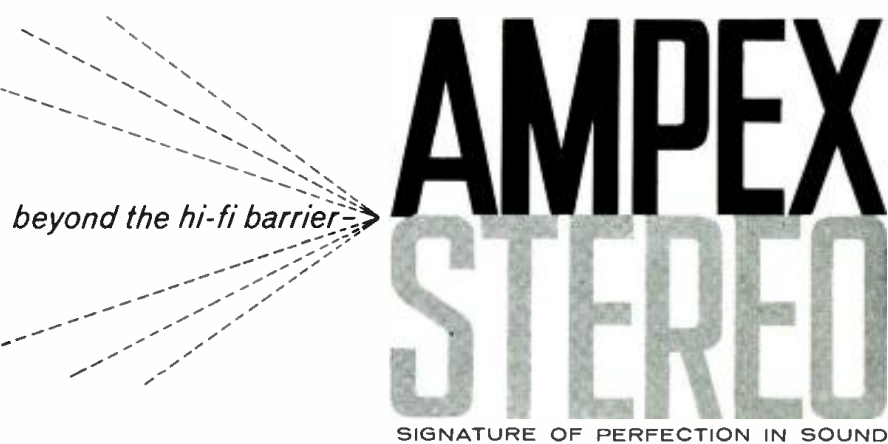
**A**—Even though your space is limited you would be better off going to stereo. You will not need two machines to do it, only another amplifier and speaker and a stereo head on the machine. If you want a stacked head you can get a complete kit including a transistorized preamplifier from the Dacron Corp. If you have a stacked stereo tape it can be played on a full track head and you will get full monaural from it. If you merely played one track or recorded from one track the result might be an unbalanced recording. You could play the tape over a stereo system and pick up the sound with the single microphone of your recorder. You could, if you wished, use a stacked stereo head and connect the poles together to play both tracks at once. This we would check carefully as the connection

of the two heads together will change the effective impedance.

**Q**—Would you be able to tell me what is causing the following trouble and what can be done to remedy it? While play-

ing back tapes I have recently been getting sort of a static noise after about ten minutes of playing. I first got this noise after pulling out and inserting audio cables from outputs on the machine while it was turned on. Could this have any bearing?—W. H. T., New Bedford, Mass.

**A**—It is possible for a static noise to come from static electricity accumulated on the tapes in a dry atmosphere however we would think that perhaps you have a loose connection in your recorder that was brought to light the first time you inserted the plugs. We would suggest you remove the mechanism from the case and check for a cold solder joint somewhere near the output jacks.



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**Volume 2, No. 3:** Music Can Make Your Mood, School Use of Recorder, Orchestra Recording, Tape Recording Glossary.

**Volume 2, No. 5A:** Sounds to Keep Your Trip Alive, Recording Bands Outdoors, Capturing Insect Songs.

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Severna Park, Md.

# TAPE IN EDUCATION

BY JOHN J. GRADY, JR.



FOR the past few years, all over the world—Europe, Asia, Africa, and also down in South America—tape recorders, of special design, perfected right here in the capital of the United States, at Washington, D. C., are playing an important role in bringing the people of the nations of the earth into closer contact with Americans. This is accomplished through the mutual exchange of knowledge about their language and our language.

Did you ever wonder how Americans in the many Army, Navy and Air installations throughout the world developed a speedy understanding of—and proficiency in—the languages of the numerous foreign nations? And how fast-learning selected contact representatives of the nations of the world developed the ability to think, and to speak, our complex American language? Well, just credit this marvelous accomplishment in vocal communication as being another of the many valuable faculties of versatile magnetic tape recording.

Years of experimentation are behind the approved electro-dual, binaural language laboratories installed throughout the world. Largely, these laboratories are joint government-sponsored projects for mutual benefit. The batteries of tape recorders in each laboratory assembly are professional instruments designed for professional teachers. These recorders—equipped with binaural head-sets for individual instruction—can perform all the methodical repetitive processes, for listening to instructive tapes, without which a strange language cannot be memorized. After listening to the instructive tape—or any portion of it—as long and as often as desired, the student may then record his own voice, uttering the material being listened to. This recording is done on a second channel—an important equipment innovation on tape recorders used for language instruction. Then, on playback, a student will be able to audition and to compare his vocal delivery with that of his instructor. This permits him to check his own accent and his own pronunciation. The repetition of this corrective procedure will help in the mastery of any language being studied.

The lingual talents of numerous skilled instructors have been used in the preparation of the necessary educational tapes. And each laboratory requires the service of a supervisory instructor. The happy objective to be attained, however, is one of joint satisfaction to instructors and to students. An adequate proficiency in any language can be secured by a competent student in much less time than by the old conventional method. And the student is certain about his accent, pronunciation and structure. The perfect tape supplies the ultimate in fundamental instruc-

tion, whereas, formerly, the limitations of some classroom instructors became the limitations of truly ambitious students capable of perfection in a favorite language. As a benefit to instructors, the new and scientific tapes frees them from the tiresome reiteration of elementary material, which provides more time for constructive aid to individual students needing it.

Over in France, the Anglo-Saxon section of the French Army's Center of European Studies, at Ecole Militaire, in Paris, uses the American-designed language laboratory to teach the English language. French officers and enlisted men, enrolled in the course, are trained to be translators and liaison officers. Others are prepared for attendance at United States Army schools. The language laboratory installed at Ecole Militaire was supplied by the United States under the Mutual Defense Assistance Program, designed to facilitate interrelationships between North Atlantic Treaty Organization forces. There are other installations in France utilized for teaching English to French military students, but a larger number are in operation in various other cities, including Paris, where American service personnel are given instruction in the French language.

The French are discovering that the instructive "talking tape" is a great benefit. They have found it is educating them to coordinate, in English, their thoughts and speech. For instance, there are French students who can translate English writings perfectly, but have difficulty pronouncing the words they are able to translate. Now, they are memorizing a correctly pronounced vocabulary of English words. They are able to do this, after hearing words constantly repeated on playbacks of instructive tapes.

The electronic language laboratory may help to speed up audio-visual training in the languages. A projector and screen synchronized with the operation of a tape recorder can minimize the act of interpretation, so that there will be immediate comprehension of the words used in describing the screened illustration. Remember the picture book, and the sweet voice speaking quietly and distinctly, "The kitten is lapping the milk in the dish."

TAPE IN EDUCATION is grateful to John E. Medaris of Washington, D. C., for supplying the information relative to language instruction facilities installed at United States Service posts all over the world. It is a pleasure to relay this information to TAPE RECORDING fans, particularly as it comes from the man who, for ten years, has been perfecting the electronic language teaching laboratories, adopted by our government for the education of service personnel. Truly, that's Tape In Education.



# TAPE CLUB NEWS



Pictured above is Stuart Crowner, president of the American Tape Exchange. Stu is a lad of 15 years, who is doing a great job as president of a fast-growing organization.

This energetic tape enthusiast prints and writes much of the A.T.E. Newsletter. Since the club has no dues, Stu carries on the activities with little financial support. We feel this progressive organizer deserves a pat on the back for his part in furthering magnetic tape correspondence.

The British Amateur Tape Recording Society opened its first Annual Snapshot Competition on the 1st of July for its members. All classes and sizes of candid snapshots, from 3 3/4" x 2 1/4" to postcard size, may be entered, but only one entry per member. All entries must have been taken this summer. There are no hard and fast rules. Prizes and who will constitute the judges will be notified to all members in the Tape *Bulletin* before the end of the competition. The club hopes for hearty support from as many members as possible.

## JOIN A CLUB

**TAPE RESPONDENTS INTERNATIONAL**  
Jim Greene, Secretary  
P. O. Box 125, Dept. T., Little Rock, Ark.

**THE VOICESPONDENCE CLUB**  
Charles Owen, Secretary  
Noel, Virginia

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

**AUSTRALIAN TAPE RECORDISTS ASSOC.**  
Jack A. Ferry, Federal President  
Springbank Rd., Clapham, S. Australia

**UNITED RECORDING CLUB**  
Richard L. Marshall, President  
2516 S. Austin Boulevard  
Chicago 50, Ill.

**THE NATIONAL TAPESPINNERS**  
Carl Lotz, Secretary  
Box 148, Paoli, Pa.

**THE BRITISH AMATEUR TAPE RECORDING SOCIETY**  
Ted Yates, Secretary  
210 Stamford Road  
Blacon, Chester, U. K.

**AMERICAN TAPE EXCHANGE**  
Stuart Crowner, Secretary  
181 E. Main St.  
Gouverneur, N. Y.

The WTE Tape Bank of World Tape Pals recently added three programs to its collection. One is by an American housewife in Japan who comments on Japanese everyday life and customs. This woman has lived in that country long enough to develop some understanding of it and the tape reveals an appreciation of Japanese culture.

Another is a description, by Trevor Davies of England, on the changes which are taking place in Wales today in industry and education.

The third addition is a vivid description of the city of Ballarat, Australia, by announcer-producer Ted Furlong of Radio Station 3BA. This lovely city is noted for its flowers.

Voicespondent Earl Savage of Virginia suggests that you enclose photographs with your tapes when exchanging them. Pictures of the sender and the subjects being discussed can make the tape exchange much more interesting. It will add the magnetic force of sight to the sound of your magnetic friendships. For those of you who have the time, Earl also suggests that you plan and assemble a slide show to go along with a tape. You could arrange a circuit among your voicespondents, whereby you have them send it from one to another, instead of returning it to you each time.

It is interesting to note the manner in which Voicespondence member, Philip Sakewitz of New Jersey happened to join the club. Philip wrote to a London paper to inquire if any recording had ever been made of music from a certain church. He was referred to VS-er Patrick Copinger, who had been making such recordings, and within a short time received copies, together with information about The Voicespondence Club. Thus, by way of a chance contact in England, Sakewitz learned of a hobby which originated in his own country.

A further coincidence developed in the friendship between these two VS-ers. In a book of newspaper clippings collected by Sakewitz, he found a couple of photographs of Copinger attending an RAF funeral in Holland in 1940 after he had been shot down there. The photographs had his name pencilled on them and were the only photographs of him that have ever appeared in a newspaper.

The United Recording Club has recently issued an attractive directory for its members. It is well constructed and utilizes a handy coding system.

The Blind Services Committee of Tape-Respondents, International has changed addresses, Secretary Jim Greene announces. B-S-C Director Vic Torrey recently moved from Phoenix, Arizona, and his new address is: 1103 65th Ave., Apt. B. Oakland 21, California.

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# How to *Imitate* the Stars

by Sheldon McConnell

. . . . funfare delight – try this interesting idea at your next happy-times gathering.

**T**APE recording has proven a boon to night club comics, impressionists and professional entertainers, in allowing them to perfect their delivery and add individualism to their stylings in comparative privacy. Instead of working out errors on stage before a critical audience, they are now able to pinpoint those errors in interpretation common to all of us. The impressionist or mimic relies on his sense of perception coupled with a developed vocal ability to repeat significant identifying sounds. The impressionist, much like the caricaturist learns to recognize highpoints in a person's voice or manner, then sets about duplicating them. Attitude as well as inflection and tone can play a large part in successful mimicry. For party fun or semi-professionally it can be an entertaining hobby for the lightweight, no bass fiddle on a hand truck, no awkward props to carry.

A proven and necessary teaching aid of course, is the

tape recorder! Before pursuing the theme of who and what to attempt, it might be well to review a grouping of standard "turns." If you can sing a little, your field will be greatly enlarged. Spoken impressions of Arthur Godfrey for example are quite common, in addition to the infamous Bligh of the Bounty, Cary Grant, the late Humphrey Bogart and Lionel Barrymore, Peter Lorre, Charles Boyer, and Dagnet's Friday. With a little singing ability, outlines of performers like Jolson, Frankie Lane, Eckstine, Farrel and Crosby can be added to your repertoire. This may sound like an ambitious assignment, but with a tape recorder, a little imagination and a willingness to try, you'll be surprised at the results!

While many of these listed can be roughly approximated through a general knowledge of the mechanics, keen listening plus a bit of showmanship are necessary for others.



*Photo Courtesy CBS*

BING CROSBY—"Wait (high) now! (low), let us not over simplify this caper, the PIECE DE RESISTANCE, is yet, uh, to come. Stand (high) by! (low)."



*Photo Courtesy CBS*

ARTHUR GODFREY—"Hide give uh million t'mawwwrows, fr jist one yess-tidday." "Delliisshuss LiPton SouP, now preezents JeanneTTE Davis."



There's always the comforting thought, that should you hit a snag, after the refreshments are served, no one is liable to be any the wiser. Though there are bound to be a few restrictions depending on range and voice quality, it should still be possible to come reasonably close to the suggestion, if not a duplication of the performer you study.

Arthur Godfrey is recognized not only for his distinctive gravelly voice but also for his delivery. He uses lots of breath for his words, speaks them slowly with deliberation, close to the bottom of his vocal range. Lips are held right against the teeth, jaw lowered and slightly tensed, we'll return to Arthur again.

Bing Crosby speaks in a sigh, the voice is pitched high at the beginning of a sentence, then tapers down evenly until about three words from the end, where there's a sudden tonal drop. The final few words are almost a throw away. Some words spoken by Crosby are held longer than ordinarily on the vowel sounds, those words are often given a jokingly over-precise enunciation. "Wait (high) now! (low), let us not over simplify this caper, the **PIECE DE RESISTANCE**, is yer, uh, to come, Stand (high) by! (low).

Singer Vaughan Monroe uses nasal resonance almost exclusively. The tone is directed to the resonance chambers in the nose. To find this resonance chamber, try "Racing with the Moon," while firmly pinching the nose. If you have early difficulty getting the knack, you might have to use your free hand to beat away the complaining neighbors, although chances are all in your favor.

The villain of the piece is Peter Lorre. His is the voice you'd expect from a travel guide in Morocco or Gay Paree, offering a collection of startling postcards. To "do a Lorre," simply affect a stage whisper and move your lips freely with each word, giving full play to the sibilant or hissing

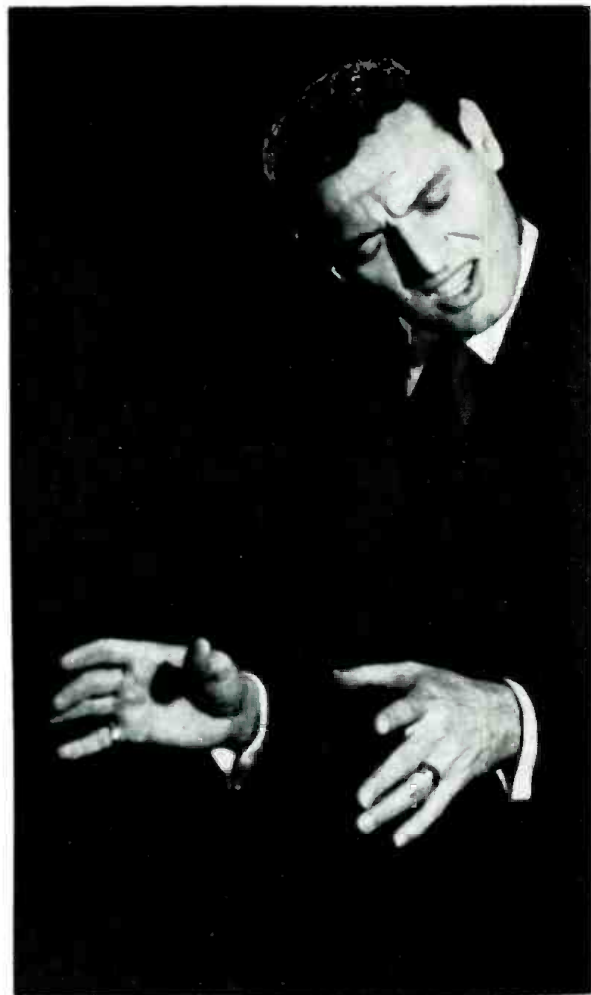


Photo by John Engstead

**FRANKIE LANE**—"HEY now, get your **COAT** and get your **HA-AT**, leave YOUR Fworries **HAWN** the do-OR **STE-ep**, **JISS DYERK** your **FEE-eet**, **HAWN** the **SU-NNEEE SIDE HUV** the **STREE-HEET!**"

sounds, and use a slight nasal overtone. The little fellow also manages to pant as though the searching police are just around the next corner. A stage whisper has considerable carrying power, and is not to be confused with the whisper of a confidence, although you may find it necessary to work closer to your microphone.

When possible, tape record from your radio or record player, portions of the performer under study, notice delivery and pacing, inflection, tone and emphasis. Some of them might well be an elocutionist's nightmare, but that's all to the good, it can be an identifying style. Who'll ever forget the late great Al Jolson and his warm staccato opening remarks! "Lays n'genemen, Nnno La me tellyah, mmiss grey bein heeah, Nnneyeahyuh t'know, they aint nuthin, nuthin! who Ole Joley boy cn say, dat ain awreddy ben said bout doze Abril Showahs, an dat Mazzin-Dixon line, myzdro, if you bleez!" Of course this is an exaggeration, but it will help you learn what to recognize in the work of a performer, his or her pacing, breathing, interpretation.

While an extremely high or low voice can be hard, if not impossible to mimic, as in music it's simply a matter of transposing to an easier range, while keeping the melody and phrasing the same. Many artists are able to color their voices, develop firm, strong tone, and remain "in the air" for longer periods through a process called diaphragmatic breathing. The hardest part about it, is the pronunciation. It requires that you draw breath deep into the waist, in-



Photo Courtesy NBC

**PERRY COMO**—"Hwe'll have uh Blue Hroom, a cozy for two Hroom, Hwhere Heveryday's uh Holiday, because Hyour married to Hme."



Photo Courtesy NBC

**JACK WEBB**—"My name is Sergeant Friday, I'm a Cawwp." Notice the Kuh sound of "C" as it's directed at the hard palate.

stead of the upper lungs, expanding an imaginary circle about the waist. Arthur Godfrey is an example of strong tone and a firm breath supply, but aside from that, his pronunciation is distinctive and easily recognizable in his theme song. "Hide give us million t'mawwwrows, frf jst one yess-tidday," punctuated by an occasional deep-seated chuckle. Again in speech he takes delight in sounding final and mid consonants like pistol shots, "LiPton SouP, preezentS Awchce Bligh-uh, anD the Mawrinuhs, JeanneTTE Davis, and Frank Pawkuh!" an all round great performer!

The screen's number one menace, the late Humphrey Bogart, was a popular target for impressionists, his glowering Captain Queeg of Caine's "Mutiny" often pops up on comedy or variety shows. A reasonable facsimile in sound can be made of the cashiered Captain by clenching the lower lip with the upper teeth showing as wide a grin as possible. Then under this handicap try to speak a few Say Pål lines around the obstruction. The upper lip will have to twitch to form the words but the ominous hiss will be there, and if your voice is kept close to a monotone, you'll be star of the precinct before anyone can say Erle Stanley Gardner!

Both Edward G. Robinson and Dagnet's Friday form their words by opening the mouth wide, from side to side. A clue to Sergeant Friday's general delivery aside from his dead pan emphasis, lies in his use of the full glottal stop before hard consonants. The "C" in cop. "My name is Sergeant Friday, I'm a Cawwp." Notice the Kuh sound of "C" as it's directed at the hard palate. His voice is clear and precise, brought well forward to the front of the mouth.

There's a story told of the quick tempered Do-It-Yourself



Photo Courtesy CBS

**ED SULLIVAN**—"And Noweeeh ladees and genlmn, we preezent a reely reely grreat performer—Samme Davis, Jrrrrr."

man who set about hammering a few nails in a cabinet. Inevitably he drew back and slammed his thumb with the hammer. The stream of invective which followed was heard by his wife, who stood by in stunned silence, remembering every word. Later that day she stood before him, and to shame him, recited every word, in chronological order. When she had finished, he looked up pleased, saying, "That's pretty good, you've got all the words, but you don't quite have the tune." So it is with the impressionist, once you understand and recognize the mechanics, it's time to find the tune. Through patience and practice with your tape recorder, many will come easily, others will require more time.

Props and mannerisms are also used to bolster and help identify a "take-off," but here we're concerned mainly with oral impressions. Owning a tape recorder is a valuable step in the right direction, and a tremendous advantage over the play it by ear school. At one time Charles Laughton used to dread an evening on the town, shortly after his memorable screen portrayal of Bligh of the Bounty. When he and his charming wife visited a club, the performers, as if on cue, would call on one of their number to "do" a jowly Bligh. This to the huge delight of everyone but the visiting celebrity. Some performers are touchy about personality impressions, others consider it a boost and take it in high good humor. Ed Sullivan has enjoyed a few realistic portrayals of himself as the non smiling Toastmaster, time and again, and on those occasions he was the first to laugh, in itself a considerable tribute.

Listening for characteristic sounds in the voices around you, can make you more aware of subtle, almost imperceptible changes that mark one personality different from an-



other. Let's travel the winding stone alley of the CasBah for the elusive Pepe' LeMoca, portrayed on the screen by Charles Boyer, then later and as successfully by the talented baritone Tony Martin. It was this film, Casa Blanca, that gave rise to renewed interest in mimicry, and an additional boost to the fortunes of Monsieur Boyer.

Perhaps the first impressionist to breathe down Mr. Boyer's neck, tumbled on the knack quite by accident. He was enjoying a meal one evening and helped himself liberally to the radishes. Unfortunately as radishes will, they had a tendency to repeat. After a few growls he was reminded by his wife he'd had enough, to which he replied, "When Charles Boyer does it you say he's romantic, when I do it, you call me rude." The growl found so appealing by fans of Charles Boyer still hasn't been eclipsed. Part of the delivery of course is in the accent, tempered now by several years residence in the U. S. The tone, however, is identifiable by the occasional grating of words in a deeper register, the mouth open wide, jaw relaxed to gasp and hold the finishing resonance.

One of today's most forthright singers Frankie Lane shouts out key words of popular songs that can't go unnoticed. "HEY now, get your COAT and get your HA-AT, leave YOUR Fworries HAWN the do-OR STE-ep, JISS DYEREK your FEE-ect, HAWN the SU-NNEEE SIDE HUV the STREE-HEET!"

The bubbling falsetto of Bill Kenny, at one time high man with the famous Ink Spots and now a successful single, is able to reach way up for those high notes in a manner all his own, seeming to preface each word with the letter "H." "Hyou Hallways hurt, the Hwun you Hlove, the Hwun you should-dent hurt at-HOLE . . . Hyou Hallways take the SuWceetest Hrose."

Singers Eckstine and Farrel have that reverberant hollow sound that makes a production out of the simplest word in a highly listenable way. Open your mouth as wide as possible, then draw the lips down over the teeth, until you have what appears to be a bird's eye view of the Carlsbad Cavern, sound a few notes and notice the rounded hollow effect. If it was as easy as that every recorder owner would be able to live on his record royalties. What we're after here is a vocal impression, a caricature in sound if you like. It would take a considerable amount of practice to develop the finer shadings and inflection of familiar personalities. Both Bill Farrel and Eckstine skid up or down once they've established the true note, to give the impression of being slightly out of key. Notice the phrasing of "Moy hort croys fore eeyou, Doyz fore eeyou."

Composers often add symbols to their work, quite apart from the musical notation, to help the performer give his work its proper phrasing and interpretation, marks often indicate force or softness, hold, and a variety of other instructions. You can also benefit by drawing up scripted passages, then add editing symbols called for in the impressions. With your tape recorder you can stage your own Academy Award show inviting party guests to play a part. On the Waterfront's Award winner can be there by inviting one of your guests to read from a prepared script while keeping the tongue pressed down inside the mouth, against the lower teeth.

Perry Como, relaxed M.C. of the Supper Club manages to make some fine sounds through lips only slightly parted, working close to a microphone he's able to sustain sound with little effort and join the words smoothly one to another. His seeming use of an imagined "H" before some

words while less apparent than Bill Kenny's, seems to provide a lift to many of the phrases. Lips only slightly apart allow him to half hum, half sing the words, "Hwe'll have uh Blue Hroom, a cozy for two Hroom, Hwhere Hevery-day's uh Holiday . . ."

In order to run the gamut of impressions you must be able to produce chest resonance or head tone at will. As its name implies, chest resonance has its origin in the upper chest. Through chest resonance and diaphragmatic breathing you can build a deeper fuller tone. Head and nasal resonance is that sound which seems to have its origin above the throat, recognized by its clarity, and thinner sharper tone.

To firmly establish these differences in your mind, first produce chest resonance. If you place your hand, palm outspread on your chest, then sing the letter O on the lowest possible note in your range, while concentrating on depth, you should feel a strong vibration in the chest. Increasing the force of this sound will make it more apparent. Humming the letter "M" will produce the same result. Head tone is found the same way, through directed resonance and with the mouth closed hum the letter "M," direct the sound toward the nasal resonance chambers and upper head, away from the chest. Notice the thinner, clearer sound. Using this exercise it is also possible to deepen the voice considerably by sounding vowels in the lower register, then words, all in a dead monotone. When the deeper tone comes easily you can add expression, color and emphasis.

Regardless of which star you hitch your tape recorder to, chances are you're going to have lots of fun experimenting for effects; who knows, maybe one day you'll get to meet those leading ladies!



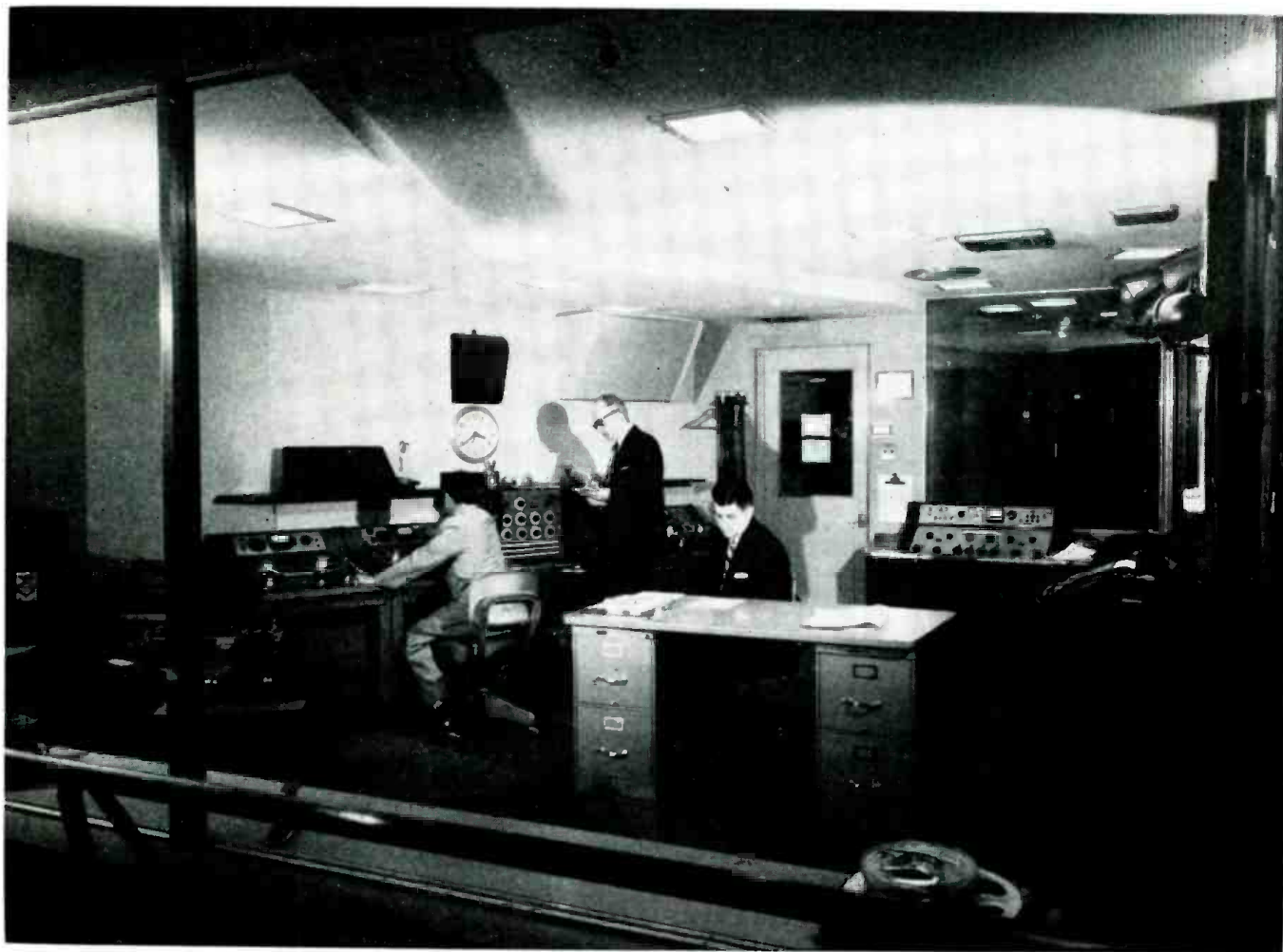
Photo by Gerald K. Smith

TONY MARTIN—"I'LL SEE YOU hin my dreammmms, HOLD YOU HIN my dreams—sumone took you OUT OF MY Armmms—Goodniiiiightt."

# Historic Sounds on Tape

by Mildred Stagg

. . . future generations will benefit from this history on tape.



View of the special tape room which adjoins NBC's "Radio Central." Henry Huestis, talented engineer who does much editing of the historic tapes, is at the recorder; Arthur Wakelee, associate of the manager of News at N.B.C., stands by mike; while an employee of "Monitor" is seated at desk.

**A** NEW kind of history is being recorded. But it makes use of none of the known symbols of written communication. Instead the sounds of history are translated into other waves that chisel a permanent record onto tape—tape that will enable posterity to hear the living sounds of voices and events as they happen today, tomorrow, or 2056 A. D.

Perhaps the idea behind "Historic Sounds" isn't new. Edison, of course, recorded famous voices many years ago—but a sense of immediacy was impossible to attain because the discs were made in permanent studios under certain *predetermined* conditions with special, non-portable equipment.

Today tape goes everywhere and does everything that is

audibly possible; and the result is that today's history is being written on tape, ready to teach young and old, anywhere in the world with maximum drama and veracity.

The place where this new kind of history is being gathered is the National Broadcasting Company News Dept., in Rockefeller Plaza, New York City. Joseph O. Meyers is responsible for its application. The invention of magnetic tape must be credited with its genesis. Mr. Meyers is the manager of News at N. B. C., a far cry, apparently, from the dusty pages of history. His collection began on the night Joe Louis announced that he was hanging up his gloves after he had won a bout in Florida. The date? July 1949.

Like most events of that year both fight and announcement were taped. Unlike most, Mr. Meyers thought the





Pattie Bowers, custodian of the historic tapes filing system, removes reels from file to fill a request for the actual voice of a political personality.

statement might come in handy for rebroadcast on the end of the year news roundup. So he snipped *Louis' statement* off the fight tape reel and stuck it in a desk drawer. As the year passed other odds and ends that he thought might be appropriate for the roundup joined the Joe Louis tape. By year's end the drawer was filled to overflowing.

Today that drawer-full of tape has expanded to 9 large files containing 3 drawers apiece. Each drawer has a double row of tape reels—and this is the infancy of a project that may well endure for a century. Joseph O. Meyers and Arthur Wakelee, his associate, recognized the value of the historic tapes almost at once. Soon they began adding voices and sounds from the past while continuing to tape everything of current interest.

As listeners became aware of the historic sounds library, they got in contact with N. B. C. Some offered to lend valuable old records to be dubbed on tape while others preferred to sell. But whichever way it was acquired the collection grew and it now includes an allegedly genuine "Cross of Gold" speech by William Jennings Bryan as well as an authenticated speech by Teddy Roosevelt.

As the file grew the N. B. C. news crew began saving taped words of important people and descriptions of events that were taped for the news programs. The system begins with the morning World News Roundup and continues with the Morgan Beatty News of the World at night. A daily log is kept of all news programs. A clerk checks each item on the news log from all over the world and wherever the actual voice of a personality has been taped, it is noted. This length of tape is dubbed onto a tape reel for the file.

For instance, if a dinner should schedule an address by a political personality, his actual speech will be kept for inclusion in the file while the introductory remarks will be discarded. N. B. C. has a reciprocal agreement with the British Broadcasting Company whereby each uses the other's

programs with the result that a file of British personages is also available on tape.

However all the sounds on file do not record voices belonging to famous people any more than history is a succession of important people having their say. One choice bit in the file was made during the 1952 pre-election campaign in New Hampshire. At Sutton, N. B. C. reporter W. W. Chaplin and his tape recorder attended a town meeting. He taped a heated argument on the pros and cons of maintaining or disposing of a watering trough for horses. Some of Sutton's citizens thought the trough should go with the horse—but one elderly resident protested. In moving tones she related how one of her ancestors had furnished and endowed the trough and she pleaded eloquently for its retention. This choice segment of Americana may give young Americans a more genuine insight into the horse and buggy era than many a book and dissertation on the leisurely pace of the past.

One important difference between early tape recording of "voices and events" and current practice is the equipment that was used then and now. In the beginning a field reporter was handed a "minicorder" and told to go out and get his story on tape. Today all field recording work is done by a field engineering crew. These men belong to a special department, "Field Recording," and they are engineers, not reporters. A field recording expert accompanies a field reporter.

This year, as in 1952, N. B. C. sent "teams" of newsmen and field engineers to 9 key states during pre-election primaries—carrying their bulky, but portable, tape recording equipment. When a team moves into a city or town they usually make their headquarters in a radio affiliate, a newspaper office, the office of a town dignitary, or even the Governor's office on occasion. To handle a large meeting such as the New Hampshire town meeting, a recorder with



Henry Huestis turns on some of his editing magic as he readies some tapes for a news broadcast. Some of his engineering feats with tapes are amazing, and the finished reel, when played for the public, gives no indication whatever of his skillful handling.

a variety of hand microphone positions is employed. Meanwhile the engineering staff is investigating all manner of new portable recording equipment in the hope of finding more readily portable tape recorders.

One application for historic sounds is N. B. C.'s justly popular "Biographies in Sound" program, supervised by Arthur Wakelee. For the Al Jolson bio, N. B. C. has a tape of Jolson's last appearance before the troops in Korea tucked away in its files. For a Benjamin Franklin biography, N. B. C. used a tape of Winston Churchill accepting the Benjamin Franklin award from ex-Mayor Joseph Clark of Philadelphia.

In the files there are reels and reels of material available for obituaries, biographies, news and documentary shows. An average of 3 to 4 calls a day is made on the "Historic Sound" files. In fifteen minutes or less after a request the sound that was requested can be broadcast over the air. The filing system that makes this speed possible seems simple. All information is typed on large file cards and cross indexed as to name and subject matter.

Each card contains information on subject matter, catalogue number and date. The reporter for this magazine picked a card at random and it turned out this way:

MASTER FILE 137B  
VOICES AND EVENTS

MASTER REEL #137B Mar. 18, 1951

Spots 10-22

Spot 10—Sen. Tobey indignant at witnesses' refusal to answer questions.

Spot 11—Korea—Press Photographers singing  
(and so forth down to Spot 22)

When the reel containing the tape is removed from the file where it is kept, the label will give the engineer a hint as to the condition of the recorded sound in addition to

the factual data. A tape of a speech made by Grover Cleveland in 1892 bears this notation, "poor quality but worth fiddling around with, use filter."

The engineer who "fiddles around with" the tapes for historic sounds is as enthusiastic about the collection as Messrs. Meyers and Wakelee. His name is Henry Huestis. He knows the files so well and enjoys working with historic sounds so much that he is responsible for some amazing engineering feats that the public never suspects.

Once as broadcast time neared for a taped speech by Sir Winston Churchill, Mr. Huestis discovered with horror that he had amputated the final "s" from a closing word that should have been plural. Seconds before broadcast deadline he was on his knees combing the floor for a Churchill "s" to finish the word grammatically. He found it just as Churchill's voice went on the air.

Editing frequently goes on right up to show time and the tape room rivals in tension the famous last minute rush at a Metropolitan newspaper. One night Beatty was broadcasting via tape from the S. S. United States. The recording was made at 6:45 P.M. and he was to go on at 7:30 P.M. But at 7:30 that night the engineer was still trying to cut the tape to fit the 15 minute broadcast. While the first half was on the air he was cutting, splicing and winding the 2nd half.

Another night a tape broke during a broadcast and Pattie Bowers, who is responsible for the filing system, held the roller on the recorder with both hands while the tape of the show rolled inexorably onto the floor *after* being played.

The magic feats that tape engineers perform in the special tape room that adjoins N. B. C.'s "radio central," are infinite. While Mr. Huestis was describing the operation of "Historic Sounds" he was also answering questions posed by "weekday's" Virginia Graham, live and in person, in the next room with *taped answers* recorded some time ago by Dorothy Collins of the Hit Parade. It was almost eerie to hear Miss Graham ask a question while the engineer furnished the answer from his tape recorder without a second's hesitation. In these half-live, half-tape interviews, there is just enough leader left between answers to stop and start the tape.

Old tapes are periodically put on new tape in order to preserve them because unfortunately there is no temperature control available to insure the preservation of this irreplaceable collection. However the devotion of those who assembled these files full of history and those who are responsible for its broadcast quality are assurance that posterity will be able to hear the sounds of history as it is made.

To secure the best possible quality for a tape made from an old disc or under difficult recording conditions, Mr. Huestis uses a compensation filter, a mechanical box that attenuates the high and mid-range. If a tape is scratchy he tunes up the brass to help eliminate the scratch caused by high-frequencies while he tunes up the highs if the tape is too bassy. When the mechanical filter box is inadequate he resorts to an electronic compensation filter.

The tape room has four tape recorders with a switching panel in the center and one RCA turntable. All taped material is dubbed, edited and played back right in this room, a center that is close to the heart of the N. B. C. news operations and closer to the hearts of those who have earned our gratitude by collecting and preserving voices and sounds that will take the place of history books for students of "Our Times."



# In up Stereo Recording

by Robert Oakes Jordan  
and James Cunningham

... the more you record in stereo, the sooner you will  
"develop" your ear to the proper sound.

**I**N last month's article we discussed an experimental stereo set-up which would help you to learn about stereo. We are now ready to proceed with the actual recording of groups of various sizes.

Strangely enough, a large orchestra is usually easier to record in stereo than a small combo or dance band. This is because we are accustomed to hearing dance band recordings with lots of "presence" on the instruments whereas symphony orchestra recordings are usually made with more acoustics and less "presence." This means that fewer

microphones are needed for the symphony orchestra than the dance band. In recording a symphony orchestra in stereo, two microphones, if properly placed, will usually give the best results.

If you are fortunate enough to obtain permission to record a local symphony orchestra the chances are that you will not have the opportunity to experiment with the microphone placement unless you can attend a rehearsal. If you can't experiment, then the best you can do is to follow this formula: divide the width of the orchestra into thirds and put your



Photo by Robert Koropp

Prelude to a forthcoming stereo Concertapes release. As previously noted, when recording stereophonically, getting too close to the instruments can lose the stereo effect. Therefore, the use of two "overall" microphones, shown above, as well as other close-to mikes for "presence," is indicated.



Sometimes microphones must be secondary. In this particular case, a compromise had to be made for motion pictures, and the microphone kept out of the picture.

microphones at the third points. That is, if the width of the orchestra is thirty feet, your microphones will be about ten feet apart. They should be about fifteen feet above the stage floor and about the same distance from the front of the orchestra. If the hall is very "live" then cardioid microphones should be used, but if it has average acoustics, omnidirectional microphones will probably work best. In order to avoid obstructing the view with microphone stands, hanging the microphones is a good plan. This can be done most simply by stretching a wire from one side of the auditorium to the other and hanging the microphones from this. If you should have a chance to experiment with the microphone placement, the first thing to do is set up your equipment in a room backstage with two monitor loudspeakers. Try moving the microphones closer to and farther from the orchestra. As you move away from the orchestra you will get less separation between the two channels and more reverberation from the hall and as you move closer you will increase the separation but lose the hall sound. The ideal is to achieve the point where there is good separation without a loss of the hall acoustics. Further experimentation will be valuable, such as moving the microphones higher or farther apart. Here you should strive for correct separation as well as a good balance of the instruments in the orchestra. While moving the microphones it would be best to keep them on stands, then hang them when the final placement is found. You may be tempted to hang yourself instead, from the sheer frustration of running between your microphones and the room backstage, so recruit an assistant to move the microphones while you listen backstage.

When recording a dance band or a jazz combo a much different technique is recommended. As stated previously, we are used to hearing these groups, on most recordings, with a great deal of presence. Even when we hear them in person, a microphone and P. A. system is used for the soloists. When they are recorded monaurally, a multi-micro-

phone set-up is used by most recording studios. There are separate microphones for each of the rhythm instruments as well as microphones for the reeds, brass and soloists. Since the microphones are placed close to these instruments to get presence, little or no reverberation will enter into the recording. For this reason the well known echo chamber is used to make up for what is lost in the close-to microphone placement. The problem confronting us is how do we get this kind of sound in a stereo recording. As we learned last month, if we get too close to the instruments we lose all the stereo effect. The answer to this problem is to use two "over-all" microphones, just as we did with the symphony orchestra, but also employ other microphones for accentuating certain instruments.

To do this you will have to beg, borrow, or buy at least four microphones—preferably two cardioid and two omnidirectional. You will also need a pair of multi-channel mixers, which you can buy or easily construct. There have been a number of excellent articles, in this and other magazines, on how to construct such mixers and we refer you to these. Assuming you have the proper equipment, the first thing to do is set up your two "over-all" microphones for good stereo. This will include placing the musicians to your advantage (you will hear strong objections from them if you try any unnatural set-up). That is, be sure something is happening most of the time on both channels, otherwise the stereo will be "side-heavy." If you are recording a small combo this can be avoided by splitting the rhythm instruments between channels; putting say, piano and bass on one side and drums and guitar on the other. The extra microphones are used close to the relatively weaker instruments or soloists for whom extra presence is desired in the recording. Naturally, if one of these microphones is used on an instrument which is predominately picked up by one of the "over-all" microphones, it should be used into the same mixer channel. Remember that the close-to microphones



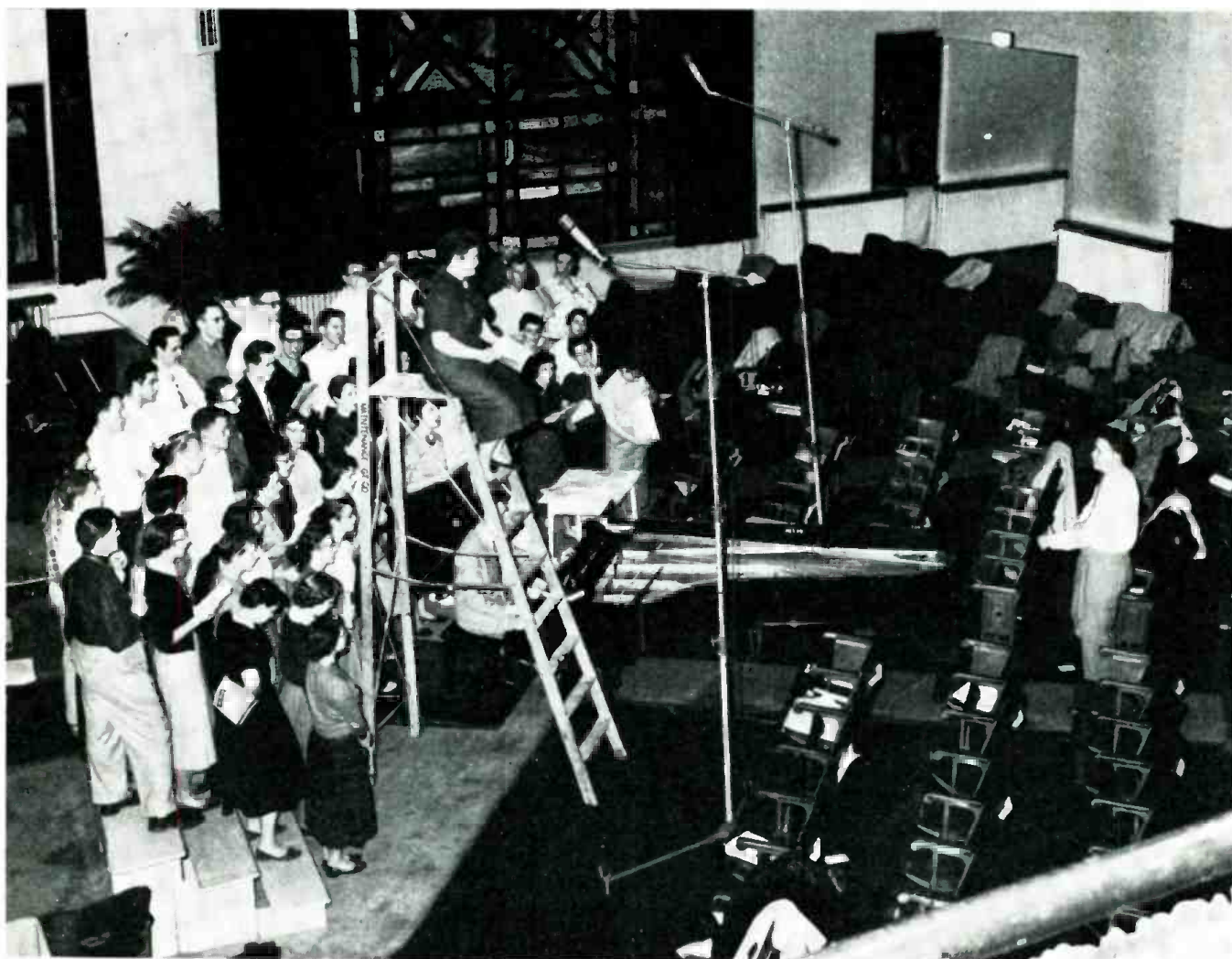
should be used with discretion and you must get the stereo effect from the "over-all" microphones.

You can achieve some rather striking effects by taking advantage of the natural antiphonic qualities of the music. For example, suppose the trombone and saxophone alternate with four measure solos in one particular arrangement. In this case, putting the saxophone on channel one and the trombone on channel two will result in a sort of musical ping-pong. Of course, too much of such gimmickry will sound ludicrous, but the right amount can be effective. Often vocal choirs sing antiphonally and this can be exploited for interesting stereo effects.

At this point we would like to stress again; it is not the directional effects that make stereophonic sound—they are more of a by-product. Stereo has the quality of being able to enlarge the listening room to the size of the concert hall or dance hall. Along with this is the enhanced clarity and definition of the music because our ears have a chance to hear the direct sound and the delayed sound (reverberation) from different directions, much the way it is in the actual hall. We will not concern ourselves here with the mathematics of why all this is true; suffice it to say that there must be upwards of two-thousands of a second time difference between the time that a sound wave from one of the instruments reaches one of the microphones and then the other.

Since sound travels about 1100 feet per second, this means that in terms of distance, the difference will be about two feet. As a test of your microphone placement pick out one instrument and measure the distance from it to one microphone, then the other. Subtract these two distances and the remainder should be something over two feet. As you can see, putting the microphones very close together or very far from the orchestra will result in almost no stereo effect. These time differences are also related to the intensity differences of the two channels. You can have each instrumentalist play a solo and check what you are getting by shutting off one channel then the other. If you do not notice a loss in the stereo effect when you shut off the farthest channel, you do not have the right microphone placement. If you have a large orchestra, do this only with the key instruments, otherwise the process will take considerable time.

The more stereo recording you do, the more you will develop your ear for the right sound. You will get a picture of the sound you want in your mind's eye, and you will arrange things until you get it. Listen critically to your own recordings as well as the efforts of others, to develop your ear. In any case, you will undoubtedly find that stereo recording is one of the most interesting challenges you have ever undertaken.



Recording the Anderson College Choir. Note how the microphones are high in order to get a balance of all the voices. The girl on the ladder is a soloist. Attendance at rehearsals provides an opportunity to experiment with microphone placement, which will assure a much finer finished recording, when the "take" is finally made.



# Those

# European



# Wonder Tubes



## Fact or Fancy!

by Jack Bayha

*. . . . for better performance, check your recorder for tubes which can be replaced by European makes.*

**A**s we read the advertising pages of our various magazines, we keep seeing the names of some tube manufacturers who are not too familiar to us here in the USA. They sell tubes which they advertise as being "superior" to the products of our home manufacturers. Mullard, Telefunken, and Amperex (actually Philips tubes) are the new names we hear most.

We keep reading articles which mention these new tubes, and we hear fantastic stories about how wonderful an improvement they can make in your tape recorder. Fact or fancy? And above all why?

In general, the improvement which will be obtained is lowered microphonics and reduced hum. The microphonics is the annoying ring you get when you tap your tape recorder. It is generally caused either by loose parts within the tubes, such as the grid wires, etc., actually rattling, and the sound being amplified, or by the movement of weak elements, as opposed to loose elements. Either one of course sounds objectionable. The European tubes avoid these two pitfalls by actually bracing the elements in place, in many cases, and by using tighter tolerances in the manufacturing processes.

The contribution to the recorded signal or playback of a tape recorder, of hum, is often due also to tubes. Our friends across the sea help out this problem greatly by using specially wound filament wires, which are so wound as to tend to cancel out any hum they might generate. Some of the tubes have special shielding built right into them, in the form of metal deposited on the inside of the tube base and special tube elements.

Lets see what tubes in particular you are apt to have in your tape recorder, which could be converted, to foreign

types, and what changes, if any, you might experience. In general, the average tape recorder will use one or more of the following types of tubes:

12AX7	12AT7	5751
12AU7	5879	5Y3

Other tubes are used in many recorders, but these are the most commonly used tubes. Direct replacement types are available from Mullard, Amperex and Telefunken for most of the above tubes, although not in all cases will they have the same number. An individual discussion of each type is given below.

**12AX7 . . .** This tube is used very extensively in the modern American tape recorder. It is a high double gain triode tube and is unfortunately subject to microphonics, and a producer of hum. As in most of the European tubes, the construction is very rugged and great care is taken to reduce the heater to cathode leakage of the tube, and thus its hum output. It is identified as 12AX7 in some cases, and as an ECC83 in others. Mullard, Telefunken and Amperex all make this tube in quality which will, in general, improve hum and microphonics in the average tape recorder. It must be noted that not every American 12AX7 is inferior in these characteristics. Many manufacturers specially select the tubes they use in their recorders. Sometimes they are quite good tubes, but usually substitution of one of the three makes mentioned will improve performance.

**12AU7 . . .** The ECC82 or the 12AU7 made by any of the three European manufacturers will be the equal of, if not superior, to the 12AU7 of American manufacture.

**12AT7 . . .** The ECC81 is the European version of the 12AT7. Like its brothers, it will show very fine freedom from microphonics, and very low hum effect.



5879 . . . There is no directly interchangeable tube available from the European manufacturers for this tube, but we have heard of excellent results obtained by rewiring the tube socket, and substituting an EF86, which is a relatively close replacement. This change is not recommended unless you are quite capable of it, since it may require slight circuit changes.

5751 . . . The 5751 is a high priced so-called "premium" tube which is put into some American recorders at considerable expense to the manufacturer. It is supposed to be an improved 12AX7, but the ECC81, or the European 12AT7 will be found to be a good replacement for it in many cases. It's interesting to note that the ECC81 costs only a fraction as much. Both hum and microphonics will generally be less with the ECC81.

5Y3 . . . The 5Y3 is an old standby in the tube field, yet it, too, has a European competitor which has certain things to offer which make it a better choice to plug into the socket than the tube the equipment was designed for. The GZ30 when plugged into a 5Y3 socket will be capable of standing heavier current drains, should last longer, and has a wonderfully slow heat-up time which acts to prolong the life of the filter capacitor in a tape recorder. As a direct replacement for the 5Y3, the GZ30 is a prize worth getting.

Replacing tubes is one job the average tape recorder fan can do himself, if he observes a few cautions. It is generally necessary to remove the tape deck unit from the case to do this operation, and care should be taken not to disturb anything in the line of adjustments which might be exposed when removing the unit. By no means remove the chassis cover if one is used, since placement of individual wires is important in many recorders. Usually, the input tubes of a recorder (12AX7, 5879, 5751, etc.) are selected for low noise and hum. If they are operative, be sure not to replace them with any tube, without making sure that the new tube is as free from hum, and microphonics as the old tube. No one is perfect, and some of our "wonder tubes" may be inferior to specially selected tubes of domestic manufacture. If tube shields have been used, make sure to replace them on the correct tubes.

As we read the above, we may begin to wonder about the American tube manufacturers. Are they asleep? What's wrong with them if the European tubes are almost without exception better than our home product? Well, it's a long story. It involves mostly the relative lack of competition, until recently, among tube manufacturers on this side of the big pond.

U.S. TUBE NO.	SUBSTITUTE			TELE-FUNKEN	
	AMPEREX	MULLARD			
12 AX 7	ECC 83 / 12 AX 7	ECC 83	ECC 83	ECC 83	Direct Replacement
12 AU 7	ECC 82 / 12 AU 7	ECC 82	ECC 82	ECC 82	Direct Replacement
12 AT 7	ECC 81 / 12 AT 7	ECC 81	ECC 81	ECC 81	Direct Replacement
5879	EF 86 / 6267	EF 86	EF 86	EF 86	Tube socket must be rewired
5751	ECC 81 / 12 AT 7	ECC 81	ECC 81	ECC 81	Direct Replacement

Our manufacturers seem to feel that the imported tubes, in general, will be hard to fight, since with reduced labor costs, they are able to do a lot more in the construction of a tube, and put a lot more into the assembly without becoming overly high priced. Until just recently, there has been little actual importing of tubes into the US. However, now it's become a deluge, and one which the local tube manufacturers watch closely.

It is hoped that this article will be another log on the fire of heating up the American tube industry, until they get hot enough to get in there and fight.

International Electronics (Mullard Tubes) has available a most fascinating film which shows in detail the construction of their famed EF-86 Noise-Free Pentode. It is a 16mm sound on film program, complete with an English accent on the part of the narrator. It goes into the production of the tube, from the basic tungsten wire used to the final product. It is available free to large groups, on application to International Electronics. You may have to wait a while to obtain it, but it is worth waiting to see.

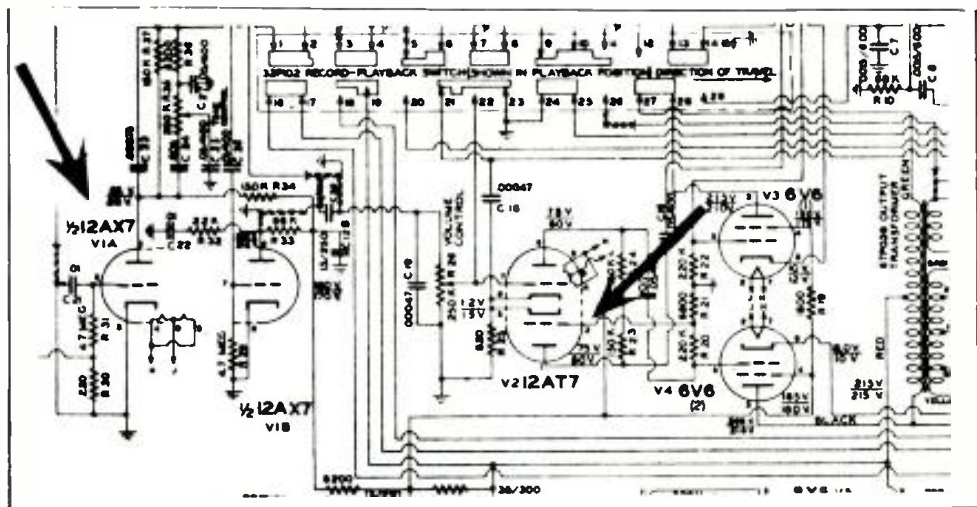
Amperex tubes are available from your dealer or write to: Amperex Electronics, 230 Duffy Ave., Hicksville, L. I., N. Y. Telefunken tubes are distributed in the US by: M. V. M. Inc., 7 Park Ave., N. Y. 7, N. Y.

For Mullard tubes if not available at your dealer write: International Electronics, 81 Spring St., N. Y. 12, N. Y.

If you're wondering if these tubes may also be used as substitutes in hi-fi amplifiers and the like, the answer is yes. We have advocated the change particularly in tape recorders because a microphonic tube will pick up any noise made by the mechanism and put it on the tape along with the music or speech. In fact, it will amplify any vibration that reaches it on record or playback.

If any of the tubes listed in this article are present in your recorder better try a "wonder tube" and see how it can improve your results.

A section of a typical schematic diagram for a tape recorder. The arrows point out two of the American tubes in the machine which are replaceable by European tubes. A glance at the schematic which accompanied your recorder, and a check with the above chart, will tell you which tubes can be replaced in your machine with those European wonder tubes.



# NEW PRODUCT REPORT

STA **OK** STED



## E.M.I. PORTABLE RECORDER

. . . battery operated, completely portable, full track, single speed.

**T**HE E.M.I. Battery-driven portable recorder is completely portable and self-powered. It is small in size and fairly light in weight. It is carried either by the handle on top of the case or by the shoulder strap to leave the hands free. It weighs about 15 pounds, with batteries, and measures 7½" wide by 8¼" high and 15¼" long.

The workmanship on the recorder is impeccable, if it may so be described. The case is covered with light green rexine with chrome fittings. The top deck of the unit is a light green which harmonizes with the exterior trim. The components are of fine quality throughout and the machine qualifies as a professional unit.

The model which we had for test was the L2B which operates at 7½ ips. The model L2A is available at 3-¾ ips and the model L2C operates at 15 ips. The maximum reel size is 5" which gives a playing time of from 7½ minutes at 15 ips to 30 minutes at 3-¾ ips. The recorder has full track heads.

The recorder has separate recording and playback heads to provide monitoring while the recording is being made, or to enable the recordist to replay the material on the spot to make sure he has it.

No erasing facilities are provided and clean raw tape must be used. The playing time can be extended somewhat by using the thinner tapes. It is intended that ordinary playback, editing, etc. will be done on regular home or studio equipment to prevent wastage of the batteries.

Ten ordinary dry cells are used to power the motor and tube filaments. The B voltage is supplied by two standard 67½ volt batteries. The life of the batteries is 15 hours for the B batteries and ¾ hour for the filament batteries with continuous use or 1½ hours with intermittent use, when the batteries have a chance to recover. The motor batteries will permit a ½ hour continuous run or 1 hour with intermittent usage. Obviously it is to the

*Product: E.M.I. Battery Operated  
Tape Recorder*

*Price: \$395.00, less microphone  
and batteries*

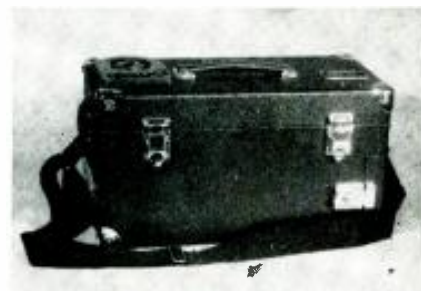
*Distributor: Ercona Corp.  
551 Fifth Ave., New York, N. Y.*

users advantage to edit, etc. on regular equipment on his return from a recording session in the field. The batteries are contained in a battery box which is as easily loaded as a flashlight. If longer battery times are desired a wet cell box can be obtained with re-chargeable batteries. A small battery charger is also available.

The VU meter also doubles as a battery test meter by throwing the switch on the control panel. If the needle falls in the green area, the batteries are safe to use if not, they must be replaced. It is wise to periodically check the batteries and should they become exhausted, they should be removed from the case, or if the recorder is to be stored, the batteries should be removed.

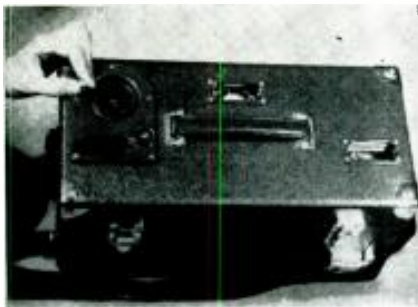
The unit has a record-play switch on the deck. When testing the batteries this is thrown to the record position and the latch lever, which operates the pressure pads to hold the tape is engaged. Then the switch on the control panel is placed in the various positions to test the bias, motor, filament and B battery conditions.

When recording, the gain control is set with a screwdriver or coin and the

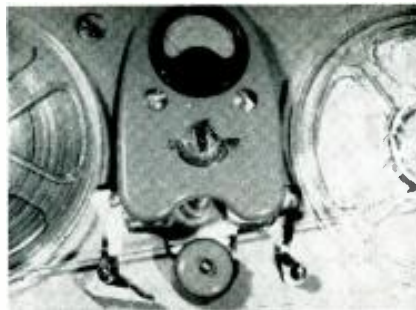


The portable with the case closed. The recorder is finished in an attractive green rexine and is operable without opening lid.

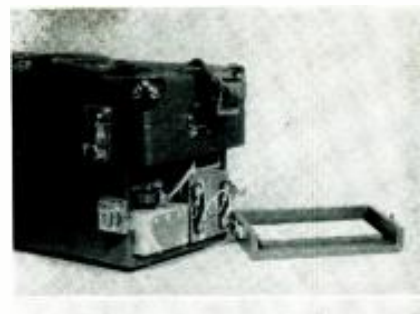




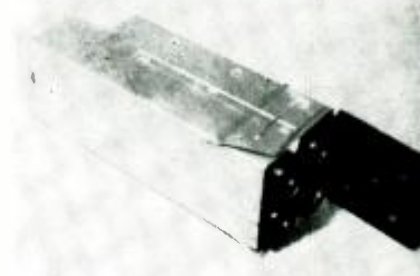
The tape may be rewound from outside the case by using the external winding knob shown. VU meter and tape supplies are visible through windows in the lid of the recorder.



The top of the recorder. At upper center is the VU meter which also serves as a battery and bias test meter. Threading is straight line using 5" reels of tape.



Upper: Batteries are easily inserted and connected. The battery compartment is easily accessible by removing door in end of the case. B voltage is supplied by two 67 1/2 volt batteries and filament and motor drive by ten standard dry cells. Lower: the battery pack to hold the ten dry cells.



distance from the microphone to the subject varied to take care of recording at the proper level. When the needle on the VU meter flicks occasionally into the green portion of the scale, the recording level is right. Monitoring can be done using high impedance headphones plugged into the phones jack.

The recorder may be operated without opening the lid. The switch is placed in the record position and the latch lever set to closed position. The lid may then be closed and the recorder operated by throwing the on-off switch on the outside of the case. Rewinding of the tape may also be done without opening the lid through the use of the external rewind lever which folds out of the way when not in use. This is a geared unit to provide fast rewinding.

The specifications for the L2B unit which we tested call for a frequency response of within 2 db from 50 to 5000 cycles per second and within 3 db up to 7000 cycles. The recorder which we tested met these requirements.

The signal to noise ratio which is listed as better than 45 db was likewise met. The E.M.I. specifications call for a playback on a studio recorder but we measured the S N ratio on the machine itself and the ratio still exceeded the specifications.

Wow and flutter were acceptable after cleaning the clutch spring with a bit of carbon tet. A drop of oil had somehow gotten on the spring and was causing it to slip, varying the pressure on the clutch pads on the takeup reel. Once this difficulty was cleared the wow and flutter dropped to meet the specifications.

The output impedance for phones is 1500 ohms and the loudspeaker jack

delivers 200 milliwatts at 10,000 ohms. Because of this high impedance, the loudspeaker must have a transformer, or, if the output is fed into an amplifier, a matching transformer must be used.

The lack of an output transformer in the machine is not too serious since it is not intended for playback, except only incidentally to check a recording on the spot. Otherwise, as mentioned previously, there would be a great deal of battery waste.

This recorder is a British machine and has English tubes in it, however, American equivalent are available for all seven tubes in the recorder.

Because of the fact that no erasing facilities are provided, this machine might not appear attractive to the average recordist. For specialized purposes, however, such as on-the-spot interviews for radio broadcasting, recording away from power sources, etc. it should fill the bill very well. As a matter of fact, the instruction book states that the recorder was designed to be operated from a base (home or studio) where erasing facilities would be available in the form of bulk erasers or studio recording equipment.

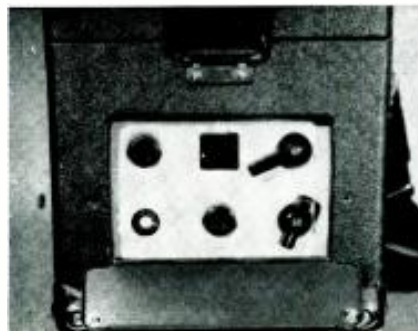
The motor is a permanent magnet

d.c. motor which is controlled by a governor and operates at 12 volts. It is self lubricating and should normally not require lubrication.

A number of accessories are available for use with the recorder including a weatherproof canvas cover, a silver-zinc accumulator pack (wet cells), a battery charger for the above, three different microphones, an earphone and a stethophone.

The price of the recorder is the same irrespective of the speed wanted. Prices on the accessories are available from the Ercona Corp.

We feel that this recorder will do what it is designed to do and well. As mentioned previously, the construction and components are of excellent quality and should provide long and satisfactory service.



Left: The control panel of the recorder. At upper left is jack for phones, upper center is microphone jack, upper right, the on-off switch. At lower left is the microphone gain control, center is loudspeaker jack and right is switch which is used for testing bias level, motor battery supply, B voltage and filament supplies. Right: Metal door covers lower controls being held by small thumbscrews.





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**FOR SALE:** Presto RC-11 Tape Transport, A-S Record-Preamp, Semi-Professional quality, \$1,350, new—asking \$650. Leaving country—forced to sell at loss. Write for details. Dan Suchman, 200 West 90 St., New York 24, N. Y.

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**\$100.00 WEEKLY** Spare Time with a Tape Recorder! Fabulous new business. Entire country wide open! Record weddings, parties, sports events, stereophonic sound, sound-on-sound multiple recordings. Make radio commercials, sound effects. Have fun and make big money in the glamorous business of Tape Recording. Money-making Facts Free! Dixieland Publishers, Asheboro 18-5, N. C.

**FOR SALE:** Shure Concertline 333 studio mike with Electro-Voice 502 line transformer to match to Hi-Z. Used very little—good as new—\$150. Turner 95D dynamic mike—good as new—\$15. R. W. Vogt, Tribune, Kansas.

**WANTED TO BUY** some Cliff Steward records—these come on Coral. New or Used. Donald W. Rose, Franklin, Nebraska.

**TAPE RECORDINGS OF CHRISTIAN** songs and music for shut-ins in exchange for your 7" tape and reel, anywhere in the world, or will exchange with anyone who would care to trade tapes. Bro. Geo. Phillips, 5510 N. Shirley, Tacoma 7, Washington.

**FOR SALE:** Complete Ampex stereo outfit, model 600 reproducer, 2 model 620 speakers in Samsonite luggage, and approximately \$200 worth of

tapes. Excellent condition. Asking \$800. Inquire C. A. Reaves, Reaves Pharmacy, Asheboro, N. C.

**WANTED:** Two 12" or 15" Jim Lansing Speakers, also horn type tweeters, any make. Robert Schade, 706 So. Warren, Saginaw, Michigan.

**INTRODUCTORY OFFER—Famous Branded Recording Tape.** A-1 Quality, fresh, new stock—1800', 1 mil acetate—\$1.79. 1200' 1 1/2 mil acetate—\$1.13. Boxed, on 7" reels. Include 20¢ per reel postage. Florman & Babb, Inc., 68 W. 45th Street, New York 36, N. Y.

**WANTED:** Tapes of Broadway stage plays. New or Old. Non-music comedy preferred. Ross Walker, 10011 Annetta, South Gate, California.

**RCA 44BX & 77D MICROPHONES**—reasonable. Other Equipment. Reco-Art Studios, 1305 Market, Philadelphia, Pennsylvania.

**YOUNG DOCTOR** will tapespond with anyone on many subjects—therapeutic, personal, other interests, music, good conversation. Tape for tape. Dr. Rosenberg, 309 5th Street, Rawlins, Wyoming.

**RECORDS FROM YOUR TAPES.** Average price \$3.00. Box 287, Bellingham, Wash.

**SYNCHRONIZER HOOKUP:** Make sound movies with your tape recorder, \$10.00. Anderson, 2424 Phelps Street, Stockton, Calif.

**RECORDER ACCESSORIES.** "Build-it-Yourself" plans and kits. Details free. Le Roi Engineering, Box 251, Elmhurst, Illinois.

**HI-FI RECORDING TAPE.** 1 1/2 mil-1", 450', 94¢; 5", 900', \$1.12; 7", 1800', \$1.84. 2 mil tapes—300', 1", 72¢; 600', 5", \$1.08. 1200', 7", \$1.14. Money back guaranteed. Please include postage. Free catalogue. Recording Services, Box 251, Wallingford, Conn.

**LEARN HYPNOTISM. SELF-HYPNOSIS** from tape! Other helpful recordings! Free information. Drawer TR9 697, Ruidoso, New Mexico.

**PARABOLIC REFLECTOR KIT.** Plastic, 26" diameter, mounting hardware, ready to use, \$18 express prepaid in states. Ed Bush, Box 101, Edinburg, Indiana.

**FOR SALE:** Presto 8N console disc recorder, standard and microgroove lead screws, Fairchild cutter head, sapphire cutters. Presto 88A recording amplifier. \$500, FOB, Middletown, Conn. Kenneth Bishop, Prout Hill Road, Middletown, Conn.

**WANTED:** LANGWORTH Transcriptions by Tommy Dorsey Write Box 1305, Kannapolis, N. C.

**FOR SALE:** Ampro Hi-Fi Model 756 tape recorder. Absolutely new condition. Includes mike, mixer cables, etc.—\$120 (list \$239.95). T.V. Lab., 111 Main Street, Waterville, New York.

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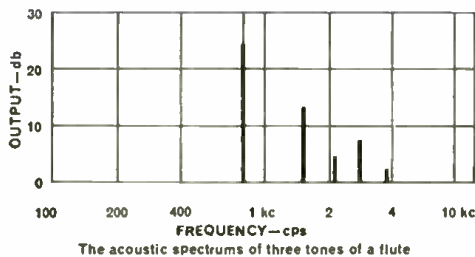
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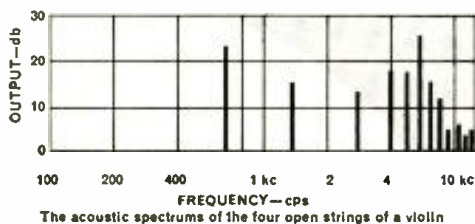
# CAUTION!



Before fiddles start sounding like flutes...  
switch now to "Scotch" Brand Magnetic Tape!



Acoustic spectrums of a flute tone (above) and fiddle tone (below), reproduced by a worn magnetic head, would look almost identical if the violin's high frequencies (shaded area) were lost by the worn head. Result is a lack of instrumental definition.



Don't blame your recorder when one instrument sounds like another. Your present magnetic tape may be causing this annoying loss of harmonics—wearing down your machine's delicate magnetic head until high frequency response is noticeably reduced.

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