

**amateur**

# **TAPE RECORDING**

**and HI-FI**

VOL. 3 NO. 12 JULY 1962 PRICE 2/-



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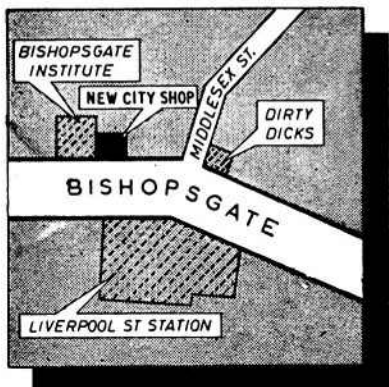


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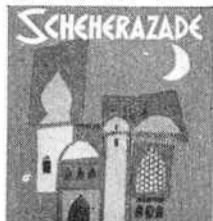
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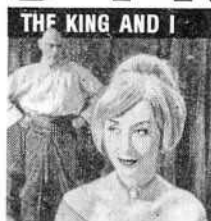
# CITY & ESSEX TAPE RECORDER CENTRES



# WORLD RECORD CLUB OFFERS YOU THE CHOICE OF ANY 3 PRE-RECORDED TAPES



**31. Rimsky-Korsakov:** Scheherazade. Sir Eugene Goossens conducts the LSO in a breathtaking performance of this rich and exotic masterpiece.  
Also on disc: mono/stereo



**32. Star cast and orchestra** stage all the famous songs: Getting to Know You, Hello Young Lovers, I Whistle a Happy Tune, Shall We Dance, etc.  
Also on disc: mono/stereo



**53. These two suites,** containing some of Bizet's most thrilling music, are given magnificent performances by the Sinfonia of London under Muir Mathieson.  
Also on disc: mono/stereo



**19. Look Over Your Shoulder, My Lean Baby, White Christmas, Don't Worry About Me, Melody of Love.** 12 top numbers sung by the fabulous Sinatra.  
Also on disc: mono only



**56. All the magic of old Vienna!** starring Jacqueline Delman, John Larsen, Linden Singers and Sinfonia of London conducted by John Hollingsworth.  
Also on disc: mono/stereo



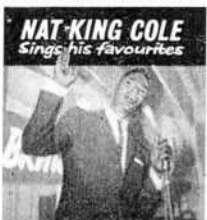
**33. Beethoven 5th,** plus Egmont, Josef Krips and LSO in a titanic interpretation which matches the tremendous power of this celebrated music.  
Also on disc: mono/stereo



**30. Ian Carmichael, Joyce Blair,** star cast/orchestra. As Long as He Needs Me, Consider Yourself, all the hit numbers from Lionel Bart's great show.  
Also on disc: mono/stereo



**32. Great ballet conductor** John Hollingsworth and the Sinfonia of London in a sparklingly fresh interpretation of Tchaikovsky's famous Ballet.  
Also on disc: mono/stereo



**20. Answer Me, Nature Boy, Ruby and the Pearl,** these plus 8 more favourites sung especially for you by the unique Nat King Cole.  
Also on disc: mono only



**40. Superb singing by Bruna Rizzoli and Giuseppe Savio** with the chorus of the Teatro Nuovo di Milano and orchestra conducted by Napoleone Annovazzi.  
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**29. Me and My Shadow, Among My Souvenirs, Mean to Me, How About Me...** the fabulous Judy Garland sings 11 of her greatest songs.  
Also on disc: mono only



**25. Ian Wallace, Joyce Blair** and chorus. Some Enchanted Evening, I'm In Love With a Wonderful Guy, and all the unforgettable songs from this great musical.  
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**34. Stardust, How High the Moon, Nearness of You, 'Round Midnight, King David**—eight numbers by the vibraphone genius, Lionel Hampton.  
Also on disc: mono/stereo



**48. Deep in My Heart, Drinking Song, Serenade**—all the old favourites fresher than ever with Marion Grimaldi, Linden Singers and Orchestra.  
Also on disc: mono/stereo



**37. Revolutionary Study, Polonaises A and A flat, Fantaisie-Improvisation**—12 favourites in all played by the pianist of Dirk Bogarde's 'Song Without End'.  
Also on disc: mono only



**22. 12th St. Rag, Isle of Capri, Smile, Blue Moon, Bunny Hop Mambo, Satin Doll.** 12 top numbers played in characteristic style by the Duke and his band.  
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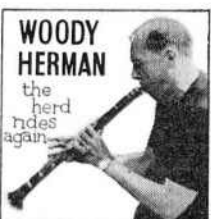
**2. Grieg Piano Concerto.** Alexander Jenner in an electrifying performance with the Bavarian State Radio Orchestra conducted by Odd Gruner-Hegge.  
Also on disc: mono only



**35. Ol' Man River, Bill, Make Believe,** many more well-loved numbers from this famous musical memorably sung and played by full star cast.  
Also on disc: mono/stereo



**44. Leopold Ludwig and LSO** combine brilliantly in an exciting 'double'; two of the world's greatest symphonies receive vivid new interpretations.  
Also on disc: mono/stereo



**45. Crazy Rhythm, Bijou, I Cover the Waterfront, Northwest Passage, Blowin' Up a Storm,** etc. The master clarinetist plays 12 numbers in great style.  
Also on disc: mono/stereo



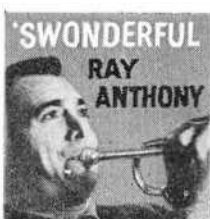
**38. Hervey Alan, Ian Wallace, Marion Grimaldi and chorus** sing the immortal favourites: 'Cobbler's Song', 'Robbers' Chorus, 'Chu Chin Chow', etc.  
Also on disc: mono/stereo



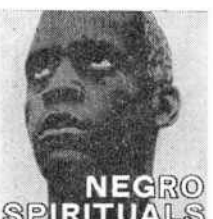
**14. Tchaikovsky Symphony No. 5.** Sir Malcolm Sargent and LSO combine to give this famous symphony a dramatic and colourful rendering.  
Also on disc: mono/stereo



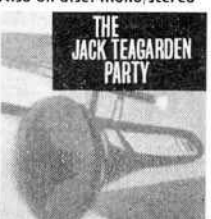
**43. Andy Cole, Barbara Leigh, Mike Sammes singers; High Society, Three Coins, Harry Lime, Gigi, The High and the Mighty.** 11 top film hits.  
Also on disc: mono/stereo



**41. Night and Day, King Porter Stomp, Pennies from Heaven, Christopher Columbus, Don't Be That Way,** with the top American bandleader/trumpeter.  
Also on disc: mono only



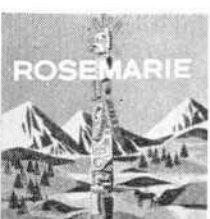
**42. Jericho, Swing Low, Shadrak...** 12 of the best loved Negro Spirituals movingly sung by George Browne, Isabelle Lucas and Linden Singers.  
Also on disc: mono/stereo



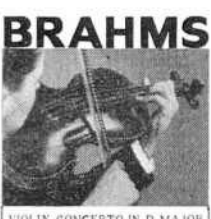
**36. Beale Street Blues, After You've Gone, The Sheik of Araby, My Kind of Love.** 12 tremendous hits by one of the world's greatest jazz trombonists.  
Also on disc: mono only



**49. Beethoven's Fidelio Overture, Brahms' St. Anthony Vars, Mendelssohn's Hebrides, Wagner's Siegfried Idyll.** All under Britain's greatest young conductor.  
Also on disc: mono/stereo



**50. David Hughes, Barbara Leigh, Andy Cole and chorus** sing Indian Love Call, Rose Marie, and all the other tunes from Friml's well-loved musical.  
Also on disc: mono/stereo



**47. Brahms Violin Concerto.** Superb playing by Endre Wolf and Sinfonia of London under the baton of Anthony Collins makes this a truly memorable performance.  
Also on disc: mono/stereo



**46. Elizabeth Larner, Andy Cole, Peter Knight singers.** Exciting 'double' featuring highlights from two famous shows by Frederick Loewe and Cole Porter.  
Also on disc: mono/stereo

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## THE GREATEST BREAKTHROUGH SINCE TAPE RECORDING!

Here is the greatest World Record Club introductory offer ever made . . . a unique offer never before matched by any record club or company anywhere in the world!

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Now you have the opportunity to play any WRC release on your tape recorder. Each of these 'tape records' runs at 3½ ips, mono, on 5" spools and can be played on either 2 or 4 track recorders. New electronic techniques of tape-to-tape transfer give these 3½ ips WRC pre-recorded tapes a standard of reproduction unattainable previously at less than 7½ ips.

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Choose now, any three of the superb 3½ ips pre-recorded tapes shown here, for only 10/- each and number them on the attached coupon. (If you wish, of course, you can choose 12" LPs instead. Both disc and tape are the same price.) Please send no money until after you have received, played and approved them. We want you to prove to yourself, before paying, that our tapes are equal to the world's best.

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privilege club price of 29/- (plus a small charge for post and packing)—much less than you would pay elsewhere for recordings of anything like this quality.

Your only obligation, as a Club member, is to agree to buy four more tapes (or 12" LPs) over the year. Beyond this, there is no subscription or membership fee.

#### 3. A PLANNED PROGRAMME.

Every World Record Club release is hand-picked by an independent panel of Britain's top musical authorities. The Countess of Harewood, Lord Montagu of Beaulieu, Sir Arthur Bliss, Richard Attenborough, Cyril Ornadel, Ray Ellington, Leon Goossens, Malcolm Arnold, Steve Race, John Hollingsworth, Antony Hopkins—and, as special adviser on tape, Miles Henslow.

#### 4. FREE MONTHLY MAGAZINE.

A monthly magazine, packed with fascinating musical articles, reviews, news and pictures, is issued free to all members.

#### 5. SPECIAL CONCERT PRICE CONCESSIONS.

Many concert halls and theatres throughout the country (including the Royal Festival Hall) allow special concession rates to club members for many performances.

#### 6. FREE BONUS TAPES.

The more you buy, the more you save! After fulfilling the minimum membership obligations, you earn another tape of your own choice free for every extra three you buy!

#### 7. EXCLUSIVE EXTRA RELEASES.

In addition to the regular monthly selections, the club offers members exclusive extra tapes at the standard Club price.

World Record Club is unique—the first and greatest Record and Tape Club in Britain, with the largest show catalogue (on tape and mono/stereo disc) in the world. No other method of tape—or record-buying offers you so many additional benefits, so much freedom and variety of choice, with no 'high-pressure' selling. And, of course, there are no subscriptions or membership fees of any kind—only a small deposit of £1 (later refundable) when you become a tape member.

Don't miss this great opportunity. Send off the coupon today, for your 3 introductory selections for only 30/-



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hear the fantastic reproduction of  
**STEREO 21**  
THE NEWEST,  
TRUEST SOUND  
ON TAPE TODAY!

Revolutionary new STEREO 21 pre-recorded tapes (7½ ips twin-track) are issued exclusively by World Record Club. But they are offered *without membership commitments of any kind*. The first list of all new STEREO 21 releases is now available. It features 30 superb stereophonic tapes ranging from Beethoven's *Eroica* with Josef Krips conducting the LSO, to a lavish full-cast production of *Oklahoma*.

As always, WRC prices present unparalleled value—all STEREO 21 releases cost either 50/- or 60/- depending on playing time (up to 50 minutes). STEREO 21 tapes are now obtainable through leading retailers or direct by post from World Record Club. Send for full catalogue now—STEREO 21 must be heard to be believed!

## 7-DAY FREE TRIAL OFFER—POST TODAY!

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To WORLD RECORD CLUB (Dept. ATR3) Box 11

PARKBRIDGE HOUSE, RICHMOND, SURREY.

SEND NO MONEY NOW

3½ ips pre-recorded tapes	12" LPs
---------------------------------	---------

Tick which you want

Please send me, without obligation, on 7-day free trial, the three selections indicated. (Your 3 selections must be either all tape or all disc.) If satisfied, I will pay you 30/- plus 3/- postage, packing and insurance. Only at that stage may you enrol me as a full member of World Record Club, entitled to all the benefits described. My only obligation as a member would be to agree to purchase 4 more top quality 3½ ips tapes (or 12" LPs) over a 12-month period at the special club price of 29/- each. If I am not completely satisfied with my 3 selections, I will return them to you within 7 days, in good condition, and owe you nothing.

**NOTE:** I understand I will be asked to pay £1 deposit when I become a tape member (this does not apply to disc members). This deposit is refundable.

Signed.....  
this offer applies in Gt. Britain and N. Ireland only.

### MY 3-SELECTION 'PACKAGE' COMPRISES

Choice No. 1 Choice No. 2 Choice No. 3



(place tape/disc key numbers only in the circles)

Tick here if stereo 12" LPs are required where available ☐

Mr/Mrs/Miss .....  
(BLOCK CAPITALS PLEASE)

ADDRESS .....

To WORLD RECORD CLUB (Dept. ATR3)

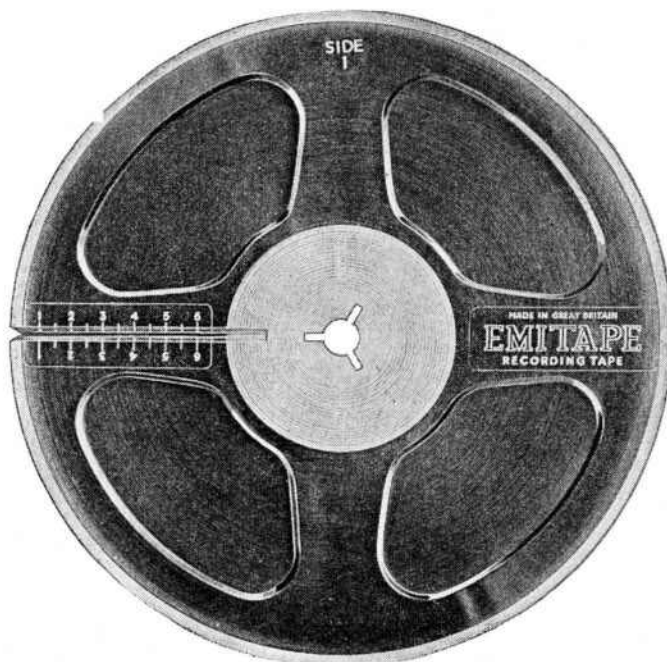
Box 11 PARKBRIDGE HOUSE, RICHMOND, SURREY.

Please send me your free colour brochure, showing the full range of your new STEREO 21 releases.

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## Double-play Emitape 100 is now easy to get

Emitape 100 *was* hard to get. So many people wanted it. And this is the reason for the big demand. Emitape 100 gives twice the normal playing time, superb frequency response, minimum head wear—in fact, the best results for low-speed operation. The same research that produced Emitape for Video Recording (the most difficult tape of all to manufacture) also produced Emitape 100. Which means that Emitape 100

doesn't just make big claims. It keeps them.

Today, new production techniques are turning it out in even larger quantities. So although it's still wanted (more and more), the search can be called off. Emitape 100's everywhere—*now*.

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# AMATEUR Tape Recording & Hi-Fi

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Advertisement Manager: J. A. Pearce

### ON THE COVER

**CHROMASONICS**—sound translated into visual forms without shape and colour—is the latest expression of the many-sided art of tape recording. This photograph was taken directly from the screen of the Chromatron, a device specially designed by ATR Technical Editor F. C. Judd to provide abstract but artistic visual representations of sounds such as those found in electronic music. The complex signals which produce the picture were first recorded on magnetic tape at 7½ ips. (See page 18).

Vol. 3, No. 12

July, 1962

## Wake up those sleepy heads!

By THE EDITOR

**T**APE recording, it would seem, has reached the point of no return. After ten years it has become a quite respectable hobby for Mr. and Mrs. Everyman. The industry has agreed on standards and been properly probed by the Consumers' Association. Even the Musicians' Union is almost resigned to living with us. Only the snarls of copyright have to be untangled and everybody will be happy.

The cosy appraisal is not ours. It is the substance of an article by John O'Callaghan which appeared in *The Guardian*. Many of the facts on which he based his assessment he managed to get right. Some of his data were not so accurate—including his references to this magazine.

### HOW MANY?

*The Guardian* somehow totted up a million and a half tape recorders in the country. Another estimate which should be more reliable, though it sounds more unlikely, is *two* and a half million. But Mr. O'Callaghan detected only two or three ways in which many of these machines are being used, apart from playing pre-recorded tapes . . . and no wonder.

Whatever the number of machines, one thing is certain. Far too many tape recorders belonging to Mr. Everyman are lying idle, their heads dulled by disuse since the novelty wore off.

This, as much as anything else, is at the root of the far from comfortable situation in which tape recording finds itself at the moment. That the sales of tape recorders have dropped, since the boom of three years ago, from 1,000 a day to some 2,000 a week is no matter for self-congratulation in an industry which cannot afford to rest content.

### GET THEM WORKING

New applications for this most versatile of inventions are being found daily by those who know its worth. But too few of the ordinary people who own tape recorders have learned how to make the best use of them. Until they have been encouraged to realise the enormous potential of the machine standing on the sideboard—or tucked away in the cupboard—their neighbours will never want to own one.

This is where the real enthusiasts—the readers of *ATR* and the active club members—can help, by ensuring that at this vital stage tape recording doesn't become *too* respectable. More imaginative, unconventional use of the tape recorder in the home, in the school and in the club will convince the laggards that it can be the most exciting, rewarding hobby ever devised for man, woman and child.

Got any ideas? We have! If you have any, we want to hear about them.

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### Home video by 19—p

**H**OME recording of TV programmes is within sight—or almost. A completely transistorised vision recorder with an hour's playing time (speeds  $7\frac{1}{2}$  or 15 ips) was demonstrated by RCA at the studios of ABC Television. But it has a deck about three feet wide, goes into a special van, and costs over £22,000. Price of a spare spool of tape—£401!

Don't despair. The size—and presumably price—may diminish with time, to the delight of your grandchildren who go to bed early.

Committee. The Council doesn't own a tape recorder. How many councils do?

The Clerk had a bright idea, though. "Maybe we could hire one to listen to the service," he suggested.

Enterprising dealers, in Spennymoor or elsewhere, might well take the hint.

### Top volume

A real flare-up between man and wife every now and again makes for a happy marriage. So believes Dr. George Bach, a

# WORLD of SOUND

A NEWS COMMENTARY

By JEREMY GILES

### This one's portable

Meanwhile, a Californian electronics firm claims to have developed the first *portable* television tape recorder. Weighing less than 100lb., it uses one-inch wide tape and can record more than an hour's closed circuit programming on a  $10\frac{1}{2}$  in. spool.

It is intended for use in the industrial field and has other applications for airport traffic control, flight training and missile launching—in any field, in fact, where visual motion records are needed.

TV tape recorders, as you may know, ordinarily use tape two inches wide and weigh at least five times as much as this baby.

### Music on tape

Stan White, *ATR* tape record critic, is now writing a similar feature for the amusement catering people who read the 'Coin Slot' section of *The World's Fair* and are interested in background music in the locations they serve.

It's just another indication of the spreading use of tape in every sphere. And of the demand for more information and critical appraisal among those who are putting it to work.

### Hire service

Spennymoor Council were presented with a tape recording of a dedication service conducted by the Bishop of Durham. This posed a problem for the Cemeteries, Market and Park

Los Angeles psychologist, who has been married for 23 years himself.

Couples who attend his clinic are encouraged to give vent to their feelings, working off grudges and hostilities, while Dr. Bach tape-records the ding-dong battle for later analysis.

Next time you and the wife have a tiff, why not take a tip from Dr. Bach? Never mind the analysis. Just play it over when you've got it all out of your system, and you'll see just how silly you sound—both of you!

### Judd on Sound

*ATR* Technical Editor F. C. Judd was heard on Whit Sunday edition of *Sound* talking about musique concrète and how it can be produced by amateurs with domestic tape recorders. In a 15 minute talk he covered the techniques involved in tape manipulation, electronic treatment and tape cutting.

Listeners also heard a sample composition produced from a single sound. What sound? The striking of a china bowl . . .

If you want the latest news of what is being done in this new field, and to learn how to do it yourself, turn to the centre pages of this issue.

### Tee for Tape

Tapesponding is getting really specialised. A golf magazine publishes a plea from a Surrey golfer who wants to form a Golfers' Tapesponding Club. Already an enthusiast, he says he finds it 'extremely interesting and rewarding in the information one can get from taping with other people.'

### Layman's guide

Norman Paul, who won the Grand Prize in 1960's International Recording Contest with *The Rest is Silence*, has turned to writing technical books. Though *You and Your Tape Recorder*, published by Foyle's at 4s., is so simple that anyone can understand it.



STAN WHITE



It guides the layman through all the stages of tape recording from baby's first gurgling to full-scale home studio work. Tapesponding, interviewing, editing, copyright and maintenance of equipment are all covered in a style that makes the book very readable as well as instructive. With pictures and an index, it's real value.

### The bells

Though the bells of Battle Parish Church were in London being re-tuned, churchgoers walking through the doors still heard them ringing from the belfry above. The ringers had had the foresight to make a tape recording before the bells were taken down and sent to the tuners...



NORMAN PAUL

### On patrol

Ordinary battery portable tape recorders are being used in Stirlingshire police patrol cars, to keep them on the road for longer periods. A tape is used every day by each officer, who hands it in after his spell of duty so that a typist can make out his report.

### This way round

Following the general trend towards invisible guides, the organisers of the annual arts and crafts exhibition at Carshalton, Surrey, said it with tape. A detailed commentary on the exhibits by Mr. E. S. Bulley, Principal, Sutton School of Art, was played at intervals each day for the benefit of visitors.

### Blind boy's aid

A tape recorder is helping a 15-year-old blind boy to keep up with the rest of the class in which he has been given a place at the Cardinal Allen Grammar School, West Derby, Liverpool. He records the teacher's voice as he follows the lessons in Braille textbooks, then returns to the blind school nearby to type out his homework.

### Love call

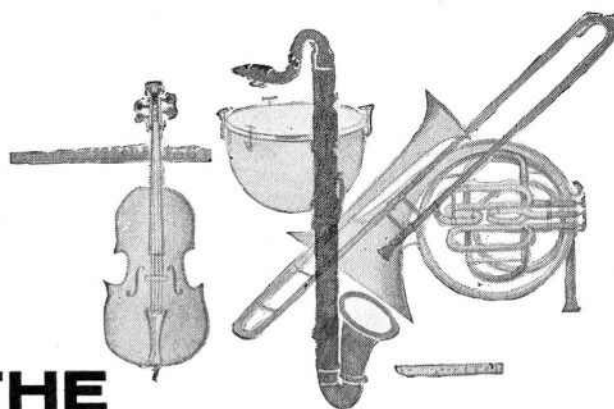
The mating call of the male haddock was tape-recorded by marine biologist Per Hognestad at the Aquarium in Tromsø, Norway. What does it sound like? Something akin to the noise made by an outboard motor, they say.

### Lost chords

Church organists in New Zealand are reported to have been improvising hymn tunes because someone is stealing organ pipes over a wide area. More than 200 have been stealthily removed, some over six feet long.

The thief is believed to be an expert at organ construction, but the fact that his collection is so ill-assorted rules out the theory that he is building his own organ. We're not so sure, though.

Couldn't he be a tape recording addict with a flair for sound effects? Or musique concrète?



## THE PATTERN OF PERFORMANCE...

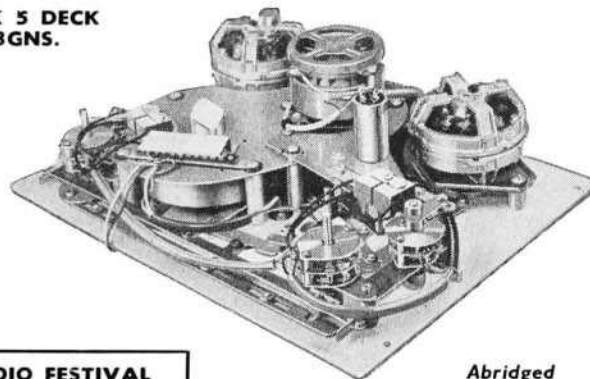
... is not to be found in a tape recorder's outward appearance. It lies within the deck, and by and large, a recorder is only as good as the components and engineering qualities that are built into the deck.

The Brenell Mark 5 deck, at 28gns, has greater precision and dependability than you are ever likely to find elsewhere, at anywhere near the price.

Its main motor is an hysteresis synchronous motor, an ideal type for recorder operation. 'Wow and flutter' is below .1% at 7½ ips!

The specification below speaks for itself, but only your personal observation can give full recognition to the individual skill and thoroughness lavished on the assembly. Such care may not be fashionable these days. We find it both desirable and economic. We are sure you will too.

### MARK 5 DECK 28GNS.



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## DID YOU MISS IT?

**I**F you are a new reader—or even if you aren't—you may have missed some of the most interesting and helpful articles published in back issues of **Amateur Tape Recording**. Limited quantities of most issues are still available. These issues are now **out of print**:

Vol. 1, No. 12 (July '60); Vol. 2, No. 11 (June '61); Vol. 3, Nos. 1, 2 & 3 (August-October '61); Vol. 3, No. 6 (January '62).

Here are some of the articles to be found in issues you can still secure at 2s. 6d. each, post free, from: **Amateur Tape Recording & Hi-Fi**, Back Nos. Dept., Vernon Holding & Partners Ltd., 43/44, Shoe Lane, London, E.C.4.

**SIMPLE TECHNIQUES IN CREATIVE RE-RECORDING**, by F. C. Judd, A.Inst.E.—Vol. 2, No. 12 (July '61).

**MODERN MICROPHONES: A special ATR survey**.—Vol. 3, No. 4 (November '61).

**CHROMASONICS: Part 2**, by F. C. Judd, A.Inst.E.—Vol. 3, No. 7 (February '62).\*

**HI-FI LOUDSPEAKERS**, by F. C. Judd.—Vol. 3, No. 9 (April '62).

\* Please note that the preceding issue containing Part 1 is out of print.

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## HE WINS AN EVENING WITH THE STARS

—and a new tape recorder—

**A** REGULAR reader of *ATR* who has been recording for 25 years and who owns 14 tape recorders—five of them Philips machines—has won the *ATR* Audio Stars Contest organised in conjunction with Philips Electrical Ltd.

He is 40-year-old Mr. Peter L. Bastin, of Canynge Street, Barbourne, Worcester. He wins a Philips Starmaker tape recorder worth 27 gns. and an evening out in London with two of Philips top recording artistes.

The great majority of readers who entered the competition were of the opinion that the Kaye Sisters make the most use of their tape recorder. It was difficult to pick the winner, but the Editor adjudged Mr. Bastin's reasons for his choice best expressed in the phrase:

*There are, in this case, three main reasons for perfection in timing, harmony and relative volumes.*

### Surprised

The news that he had won the competition came as a surprise to Mr. Bastin, who wrote:

'I am most grateful, and most astonished, for this is the first competition I have ever won. I am even more pleased that the contest is sponsored by Philips Electrical Ltd., a firm I have always held in very great respect.'

Later, he told *ATR*: 'I am convinced that Philips are the most enterprising and enlightened manufacturers of tape recorders in the domestic field. I have tried four makes of portable machines and consider the Philips EL3585 by far the best all-round value.'

A local government architect, Mr. Bastin has his own small studio equipped with a Simon SP4 and the Brenell 5M in addition to the Philips EL3585.

### Tape broadcast

He is interested in electronic organs, big and small group jazz, and orchestral music of all types. A 'surrealistic sound' tape he made in his studio was broadcast on Radio Luxembourg.

A special interest is broadcast and recording techniques, and one of his ambitions is to attend a recording session by Ted Heath or some other big band.

His first steps in recording were in 1937, with a groove-cutter bought in Paris. Seven years later, in Delhi, he used a wire recorder to give background effects to a colour film called *Seventh City*.

He joined the British Recording Club at its inception and has every copy of *ATR* on file.

Arrangements are now being made for Mr. Bastin to spend 'An Evening with the Stars,' when he will be presented with the latest Philips tape recorder to add to his prized collection.

### THE PAGE THAT PULLS

*Something to sell . . . ? A service to offer . . . ? A classified advertisement in ATR brings results. An advertiser writes: 'Kindly keep advt. running for a further six months following current six months period. Splendid response!'*



*Checking the Fi-Cord 202 with a Grampian mic and reflector.*



*The Fi-Cord 202 catches the sound of swirling waters somewhere in Scotland.*



*On the sand dunes at Southport with the Philips EL3585 transistor portable.*

# TAPE ON TOUR

**L**ONDON—0830 hrs. We are ready to begin a 2,000-mile tour with tape all the way. This is a combined operation—to put three portable tape recorders through field trials, and to visit as many tape clubs in the north of England and Scotland as we possibly can.

In glorious sunshine which stayed with us almost the whole way, we settle down for the first stage of our journey—200 miles to Liverpool. In the back of the car, on top of the luggage, a Philips EL3585 portable tape recorder is playing through a selection of favourite music.

The miles roll by. We pick up the A6 at Kettering, fork on to the A50 at Leicester, lunch at Ashby-de-la-Zouch. Then on to Liverpool and our first club visit—the **Liverpool Central Tape Recording Society**. So our journey progressed, all the time heading north.

In view of the distance between the six tape clubs we had planned to visit, we soon realised that one or two might have to be missed. One of these was Middlesborough, to whom apologies are due. We had to change course at Leyburn in Yorkshire and turn directly north again because various delays had upset our tight schedule.

## The portables

Apart from the **Philips EL3585** which did duty most of the time in providing "music while you drive," we carried a **Grundig TK1 battery portable** and the new **Fi-Cord 202** for the field trials. In addition, a **Simon SP5** survived the whole journey and was demonstrated on several occasions.

CONTINUED ON PAGE 12

**ATR heads north to visit the clubs and test some portables**



*Waiting to record the chimes from the clock tower at Rothies, in Morayshire.*



*Collecting seashore sounds with the Fi-Cord 202.*



*By a gentle river in Yorkshire with the Grundig TK1.*

## TAPE ON TOUR—continued

We included a high grade cardioid microphone, a Grampian microphone reflector complete with a DP4 microphone, spare spools of tape and some special recordings for the benefit of the clubs.

The portables were used as often as possible to make all kinds of recordings, from the sound of waterfalls to running commentaries while driving; for interviews and even for recording route instructions to save continuous map reading. Each recorder functioned without fault through the entire journey. (For a full review of the Fi-Cord 202, which was bench-tested after its field trials, see *The Sound Scene*.)

Still moving north, we by-passed Glasgow and made for the A84, the road to the Western Highlands; through Callender and Strathgryne by Loch Earn, around Loch Leven and on to Fort William. Then up to Inverness by Loch Ness and across to Lossiemouth, the most northern point of our journey.

### On parade

Next stop Rosyth and the **Caledonia Tape Recording Society**, via the snow-covered mountains north of Balmoral. We arrived there in time for a splendid

passing-out parade; because the CTRS is at HMS Caledonia, a large naval training station. Here we were welcomed by RAS Fields and his colleagues, taken on a tour of the station and given the opportunity of recording the entire parade, complete with station pipe and brass bands.

Still the sunshine stayed with us, and from Rosyth we doubled back across the Tay car ferry to arrive on time for our evening session with the **Dundee Tape Club**. A pleasant meeting with secretary Charles Aitken and his members, a quick demonstration of the Simon SP5 and the Fi-Cord 202, together with some recordings of musique concrète, made up the impromptu programme.

Next morning we were on the last stage of the journey, but the sunshine had gone and we took the rain with us to Newcastle.

### Joint meeting

This time it was a combined meeting with members of the **Newcastle and District Tape Recording Club**, the **Jarrow and District Tape Recording Society** and Mr. Haining of Simon Ltd., who had travelled up from London to join forces

with us in a demonstration of the Simon SP5.

This was the end of the road except for the final run home down the A1 to London, though this was extended by a trip to the south coast. The portables and the Simon SP5, with the rest of the equipment, survived the entire journey. Miles of pot-holed mountain roads were covered and all the equipment used to the greatest possible extent—which speaks well of the manufacturers and their products.

Our apologies, again, to all the clubs 'up north' that we were unable to visit. Next time, perhaps your club will be in our itinerary.

F.C.J.

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# RACHEL LINDSAY

finds that for children's parties  
a tape recorder can be as good as

## *An extra pair of hands*



**M**Y niece has three children. There's only a couple of years between each of them and they were all born close together in the same month.

That's why she gives one birthday party each year for the three of them. Children stream in by the dozen, the house is in an uproar for four hours and an absolute shambles for twenty-four. But after that comparative peace reigns for another 364 days.

Last year, though, poor Brenda nearly gave up the ghost, what with making sandwiches, cakes, jellies and ice cream, serving the little dears and making sure they didn't stuff themselves too full. And then—horror of horrors—because her husband was ill and I was away and couldn't help her, she had to organise games and play with them too.

It took her days to recover her equilibrium and she vowed that never again would she give a party. But the year rolled on inexorably, and birthday month loomed ahead. Three angelic voices pleaded, and Brenda gave in again.

### No chances

But she was taking no chances this time. She couldn't afford to hire any help but she did have a tape recorder and, as she said, "Honestly, darling, it was an extra pair of hands."

No, the tape recorder didn't bake the cakes and make the jellies. But it did something just as important: it kept the children occupied.

A week before the party, Brenda recorded games and quizzes on the machine. Children love musical chairs; so she recorded snatches of tunes from the radio, switching it off every half minute and allowing enough time on the tape for the kids to find suitable chairs.

For those who were unlucky she recorded the following announcement: "Come along now, children. All those who are still standing must go to the far side of the room and sit on the floor. When the music starts again all of you lucky enough to find chairs must start walking round them once more."

She also recorded instructions for her eldest child to remove a chair each time a different tune was played, in accordance with the rules.

The next game was a quiz. Pencils and paper had been left in a corner on the sideboard, and each child took one and had

it ready when the tape was switched on. Different sounds were heard, and the child had to guess what they were.

Songs were played and the titles requested. Snatches of stories were read, and the youngsters were asked what they were—Cinderella or Goldilocks and some of the popular TV series. The children were then asked to write their names on the sheet of paper and pass it to their next-door neighbour.

When this was done the tape was switched on again and the answers were given, enabling each child to check the paper in front of him.

As an extra standby, this clever Mum had borrowed some silent movies to show on a 16 mm. projector. She knew the children would be a bit restless watching something that had no sound, but sound films are expensive to hire and, in any case, she didn't have the equipment.

Instead she recorded music and a funny commentary on the recorder, which she played to run simultaneously with the film projector. It was amazing what a difference music made to a Donald Duck cartoon.

She even showed some pictures they had had taken on holiday and recorded an amusing commentary over each one.

Afterwards Brenda decided that musical chairs had caused

## STRICTLY FEMININE

the most fun, that the quiz had kept them occupied the longest, and that the pictures had kept them the quietest.

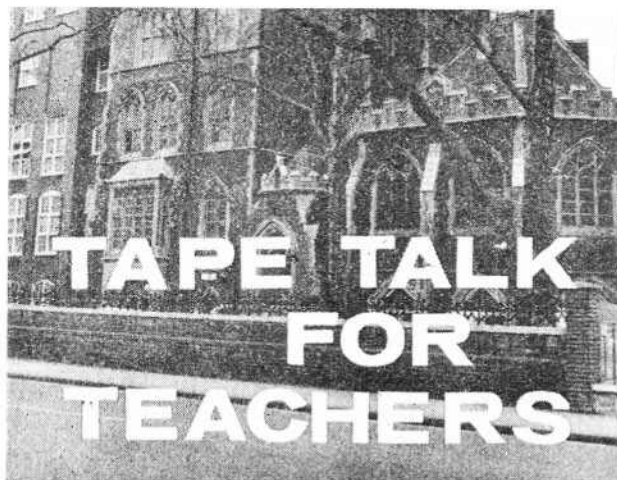
### So easy

"Of course, I had to be there all the time," she said, "but it was all *arranged* on the tape, and it was so easy just to switch the thing on and off. Why, do you know, I sat in an arm-chair with my feet up and the tape recorder beside me, and just watched the kids romp around in obedience to my mechanical voice."

And her husband? He was in another room doing more recordings for the next party they were going to give—an adult one this time.

I'm sure you'll like to follow some of the suggestions I've made. And if you've any other ideas, either for adult parties or children's parties, do drop me a card telling me about them. There'll be prizes for the three winning letters.





**T**HREE years ago there were many teachers who did not take the tape recorder seriously. They regarded it as a toy in the home and a gimmick in the classroom. Today this situation is transformed. The tape recorder in school is almost an essential item of equipment, and educational recording is extending its field functionally and geographically.

Teaching by tape is now quite respectable. It has received the accolade of VIP patronage twice in the past few weeks.

The Lord Privy Seal, Mr. Heath, recorded a message concerning the Common Market for the opening of the annual fair at Arle Secondary School, Cheltenham. And the Duke of

## ● TEACHING BY TAPE IS RESPECTABLE NOW

Devonshire—nephew of the P.M. and a Parliamentary Under-Secretary—has visited Ealing Technical College to examine its language laboratory.

He wanted, apparently, to get some ideas on how these methods (explained in *ATR*, incidentally, nearly a year ago) might be adapted for teaching English to Commonwealth students. All teachers who are enthusiastic about tape will be encouraged by such august recognition of their efforts . . . I almost said new ideas but they're not new any more—only to those who are beginning to realise their usefulness in practice.

A teachers' training college in Johannesburg demonstrated a method of teaching German which the local Press hailed as 'new' though it was only new to them. A synopsis of the German set book for Matric. is recorded on a tape, then played back to the children who follow the recording in a book.

### Music has wings

And so to New Zealand, where the sound of aircraft arriving on Norfolk Island means mail for most of the inhabitants. But for one eight-year-old girl it means another music lesson.

While she was on holiday in New Plymouth, North Island, she was taught the intricacies of fingering in four intensive half-hour lessons. But since returning to Norfolk Island she has worked alone—aided by the tape recorder.

Notes on theory are prepared on tape by her two teachers and sent to her every week, with explanations of the music she

has to learn. She then records her interpretations and sends the tape back to New Plymouth. So her tutors can tell if she is making mistakes in timing and correct her faults by recording the music as it should be played on the other side of the tape.

### Sounds of the bullring

The first school to report to us when we started this page over two years ago was Victoria Technical. After a long silence they have come through again with a lively report on their school journey to Spain. Their correspondent's account is so amusing that I wish we could print it all, but space forbids. Here is an extract:

'The highlight was the visit to Barcelona, on Easter Sunday. We expected the town to be full of processions, and on Saturday night I lost some sleep wondering how I should retrieve 43 boys from the throng. But in the event Barcelona was very like the City of London on Sunday, and but for the bullfight the day would have been very quiet.

'That fight will live in our memories, aided by *hundreds* of photographs and tapes. In one respect the tapes have a distinctly un-Spanish atmosphere—created by the fact that a small but very vocal minority is cheering loudly for the bull. As we play over the tapes, I seem to be able to recognise each of those dissentient voices.

### The biter bit

'One practice we considered unfair to tapists. On several occasions we were lured into cafés by the sound of flamenco music, which we dashed in to record. We then discovered that the music was issuing from a tape recorder—and retreated disillusioned.

'One Spaniard sang his song five times before professing satisfaction with our recording of his rendering. The hotel proprietor also recorded his opinion of us, but as his speed and dialect defeated our boys (trained, of course, in pure Castilian) we do not yet know what he said; the final editing of the tape awaits the translation of this item.

'The work is now starting. The film has been shown as it returned from processing and is now being edited. From the recordings a sound track is being prepared. Photographs are being enlarged and transparencies selected. Sometime before next Easter we hope to invite you to see the finished product.'

---

*NOTE.—Letters relating to this page should be addressed to: Dr. C. A. Smith, M.A., Education Division, 'ATR,' Room 532, Ulster Chambers, 168 Regent Street, London, W.1.*

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# THE IMPORTANCE OF 'MIC'

By A. LESTER  
RANDS

## TAPE WITHOUT TEARS



LEFT: The Lustraphone LD66 moving coil microphone.

When recording music the best thing is to make a series of test recordings and listen carefully to the results. Having established an optimum position for the microphone, this should always be used.

TURN TO PAGE 18

THE microphone is, of course, the most important accessory to the tape recorder. No matter how good the recorder, a poor microphone will only result in poor recordings. On the other hand, a high grade microphone wrongly used will also produce inferior recordings. Equally, a poor recorder will never do justice to a first-class 'mic.'

How then does one decide which microphone is the most suitable and how to use it to best advantage?

There are three basic kinds of microphone:

**Pressure microphones** are the moving coil, crystal and condenser types and are probably most widely used by recording enthusiasts.

**Velocity (pressure gradient) microphones** are used mainly for high quality music recording and employ a thin metal ribbon and magnet system. Because of this they are usually called ribbon microphones and are greatly favoured by professional recording studios.

**Combined (cardioid) microphones** employ a combination pressure and ribbon element. Apart from being very suitable for tape recording they have a special directivity characteristic from which the name 'cardioid' comes.

### The Crystal Microphone

This employs a special crystal element which operates in conjunction with a diaphragm. Air pressure changes produced by sounds move the diaphragm, which in turn exerts pressure on the crystal element. The nature of this ele-

ment is such that when compressed mechanically it generates minute electric currents (Fig. 1).

Crystal microphones have a 'high impedance,' usually around 2 to 3 M.ohms, and can only be used with a tape recorder that has a high impedance microphone socket. They have other limitations, too. Although they are sensitive, the frequency range is somewhat restricted and the response to transient sounds is not particularly smooth.

While one can, of course, record music and speech with a crystal mic the quality will not be comparable with, say, a good moving coil or condenser microphone. Music—and, for that matter, speech—tends to sound hard and edgy when recorded with a cheap crystal mic. But one has to take into account the difference in cost. The average crystal may cost only £2 or £3. A condenser microphone suitable for home recording may cost around £10, and a studio instrument up to £100 or more.

Because the crystal microphone will pick up sounds fairly equally from all directions, it is known as an *omnidirectional* microphone. It will permit close-range speaking without appreciable distortion, but when music is being recorded it should be placed near enough to provide a substantial recording level and reasonable balance, but not so close as to emphasise any one particular musical instrument.

Crystal microphones seem particularly sensitive to snare drums, and if these are too close to the microphone you may find they are predominant in the recording.

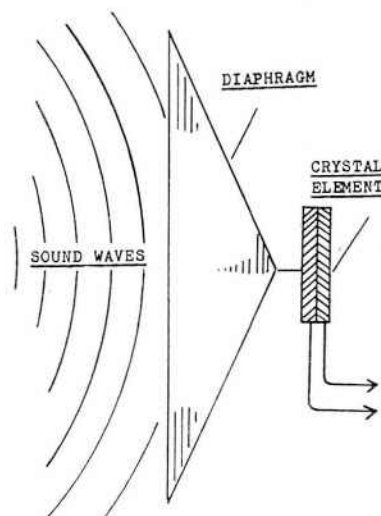


Fig. 1: The crystal microphone.

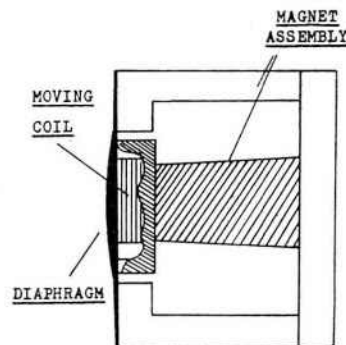


Fig. 2: Basic moving coil mic.

## The Moving Coil

There is a wide range of moving coil microphones, and many are particularly suitable for tape recording. Like the crystal, they are omnidirectional but have a much superior performance. The operating principle is similar except that a magnetic element is used instead of a crystal (Fig. 2).

A moving coil mic is somewhat similar to a moving coil loudspeaker except that the cone, speech coil and magnet assembly is much smaller. Normally, it is a low impedance device, but it can be obtained with a built-in matching transformer for high impedance output. Price range is from around £5 to £30, or more for a high grade instrument.

One of the least expensive is the Lustraphone LD66, which also has the advantage of being available with a high impedance output. It can therefore directly replace a crystal microphone. Generally speaking, the higher the price the better the quality, and though the cheaper kinds may in some circles be regarded as inadequate for music, they will produce some quite pleasing recordings.

Next month I will deal with ribbon velocity and cardioid microphones and their peculiar directional characteristics.

## Chromasonics

### —ART FROM SOUND

**A** NEW form of art derived from sound is likely to develop from Chromasonics, the process by which abstract patterns are produced from a cathode ray tube by means of tape recordings.

The experiments of F. C. Judd, A.Inst.E., Technical Editor of *ATR*, which resulted in an impressive demonstration of Chromasonics at the Audio Festival in April, have aroused enormous interest and speculation. It is recognised that the system has many possible applications in the spheres of entertainment and commercial art.

Electronic music accompanied by a fascinating display of coloured 'sound shapes' projected on to a screen, which enthralled visitors to the Audio Festival, is a natural development. Use of the system to provide animated background displays for exhibitions and stage shows is also foreseen.

#### Unlimited

The range of patterns which can be produced by the 'Chromatron' is so varied and colourful that the number of still photographs that can be taken from the screen—such as the one on the cover

—without duplication is virtually unlimited. This suggests endless scope for the invention in the field of commercial art.

It is probable that an exhibition of such photographs will be staged in London in the near future.

Basic principle of the Chromatron is similar to that of the oscilloscope, on which the bright spot formed by the electron beam traces the waveform of a sound so long as a signal is applied to the tube.

The signals which produce the patterns in the Chromatron are recorded on tape at  $3\frac{1}{2}$  or  $7\frac{1}{2}$  ips, and colour is introduced by a mechanical scanner which revolves at ten to twelve times per second in front of the cathode ray tube.

Seven colours are used, and a pattern may be of a single colour or made up of all the colours like a mosaic, giving rise to an infinite number of kaleidoscopic effects.

The colours are changed by adjusting the speed of the scanner in relation to the rate of the signals which brighten the cathode ray tube. Mixtures of colour are caused by impulses occurring at other frequencies and by the frequencies of the pattern signals themselves.

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*Comes an idea for a song . . . and  
then those spools start spinning*

# ALL THE POP PEOPLE PUT IT ON TAPE

**T**APE recorders are becoming more and more popular in the music world—especially in the ‘pop’ business.

Most of the artistes I know use them for rehearsing, phrasing, and so on. In fact, Cliff Richard has two or three. In his case they are used for writing songs! He records his ideas as he gets them—and believe me, that’s a sensible way to work.

For instance, you can get inspiration for a tune in the most off-beat places. Some people even compose in the bath tub! And by switching on a battery portable and humming the tune into the microphone you have it on tape for as long as you want it. Much easier than trying to keep it in your head until you get to work!

This is especially useful if you aren’t all that hot at writing down music but you often get good ideas and melody lines.

## Problems solved

My own tape recorder I use mainly for rehearsing. Sometimes I’ll get a singer up to the office and I want him to hear a new song. If it’s an American song it often means I have only one copy on which I’ve got to do arrangements. This poses more than a few problems. But with the help of my trusty tape recorder I can overcome them.

I simply play off the tune on a piano, record it, and play it to the singer. He can then take the tape away and play it as much as he likes, learning exactly how the melody goes. And I can go home and work on the arrangement.

My recorder also proves its worth when it comes to demonstrating a tune to people who can’t read music. Then it is really useful—because I don’t carry a piano around with me wherever I go! I just carry my tape with the tune recorded on it and play it to anyone I want to hear it—provided they have

**Says**

**NORRIE PARAMOR**



a recorder on the premises. And they usually have, these days.

## Dream tour

I’m pretty brown at the moment from a fling I’ve just come back from. I’ve been to Athens to watch filming for the new Cliff film *Summer Holiday* and see how the musical score will fit in. And in September I hope to be deepening that tan—if it’s still there by then—with a spot of the old world tour.

This will be my dream come true—to coin a corny phrase. And though a ‘business trip’ is the excuse, I will certainly be working on this trip.

I want to visit places like Australia and the Far East to talk to our people out there and learn their problems. Another reason I want to go is purely musical. I want to find out what sort of thing goes down well abroad, the sort of thing that will be a hit in Japan. Though this is often very complicated—Helen Shapiro and Bobby Rydell have both had No. 1 records there!

I feel this tour is going to be really interesting, because there’s a lot which these countries have in their music that could be adapted to our own pop and music world. I think this is one channel that hasn’t been much explored, and I’m absolutely positive there’s an awful lot we can exchange with these countries when it comes to music.

I suppose I should be taking a tape recorder with me—it would certainly be useful. But the Customs get very funny over these things!

Be with you again soon—I hope!

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## **You too can produce a new kind of music from everyday sounds. All you need is a spare recorder, patience—and imagination**

**S**INCE I last wrote on the subject of electronic music and musique concrète,\* further information concerning the techniques of making music with tape and sounds has come to hand and I have also been engaged in a little research of my own.

For the benefit of new readers and those tape clubs who are forming special groups devoted to it, let me outline the elements of musique concrète, which should not be confused with electronic music though the composition techniques are somewhat similar.

### **What is it?**

Musique concrète is a new concept of music which is composed on magnetic tape and employs real, everyday sounds. The musique concrète groups in France, notably that of Pierre Schaeffer at the R.T.F. Studio (*La Radiodiffusion Télévision Française*), work on the principle of selecting pieces of re-

corded material which they regard as "sound objects" from which a whole composition may be constructed.

Other composers simply take groups of sounds such as railway train noises, bell chimes, machinery noise, and even specially created sounds, and transform them by all the known techniques of tape recording, tape manipulation and electronic treatment. The sounds, transformed or otherwise, are then cut from the master tapes and arranged in order, by splicing, to satisfy the composer's thoughts.

### **Sound objects**

Composition is mainly abstract, and though special equipment is used in the studios most of the techniques are within reach of the tape recording enthusiast with one or two tape recorders, a good deal of patience and a little imagination. Those with technical knowledge and the ability to construct or modify equipment can apply many of the specialised treatments and produce most of the effects known to studio workers.

Part of the work of the R.T.F. musique concrète group is

## **The Technical Editor, F. G. Judd, A.Inst.E., tells you how to**

# **EXPERIMENT WITH MUSIQUE**



*The 24-speed Phonogène, a special device used at the T.R.F. Studio for transposing the pitch of a sound.*

to assemble and evaluate sound objects. Their library includes such sound objects as a falling drop of water, the sound of a gong deprived of its attack, the resonant sound produced by a Chinese temple block, and so on.

As far back as 1924 experiments were being carried out with sound objects, and this might well form the basis of a competition in musique concrète production by any tape club which has run out of ideas. Clubs have a great advantage over individual recordists with only one machine: for members can assemble several recorders and a signal mixer and experiment with many of the techniques used in the studio.

For example, in the R.T.F. studio a device called a Phonogène is used to transpose the pitch of a sound to any degree of the chromatic scale. The phonogène is a 24-speed tape recorder which employs a closed tape loop. It has twelve drive spindles, each with its own pressure wheel, and the speeds correspond to the twelve semitones in the equitempered chromatic scale.

The drive spindles may be engaged by depressing one key of a 12-key piano keyboard connected with the phonogène. Since the motor speed may be changed by a factor of two, the number of tape drive speeds may be extended to twenty-four.

### **Variable speed**

The nearest that one could get to this with simple equipment is to convert an old 3-motor tape deck by modifying the tape drive system and replacing the A.C. drive motor with a D.C. motor. I have modified a deck in this way by fitting a 1/20 h.p.

\* See *A.T.R.* November, December 1960; January 1961.



24 volt D.C. motor the shaft of which has a soft rubber drive wheel that runs directly on the capstan flywheel. The flywheel is about 5in. diameter.

The motor is fed from a 24 volt D.C. supply via two potentiometers, one providing coarse control and the other a fine control of speed. Tape speed is therefore continuously variable. My own modified deck operates from 2.5 ips to 40 ips, thus providing a pitch range of about  $4\frac{1}{2}$  octaves. The recorder operates over practically the entire speed range with only 0.15 per cent rms wow and flutter. Long term speed/pitch variation is about half a semitone in several minutes of running.

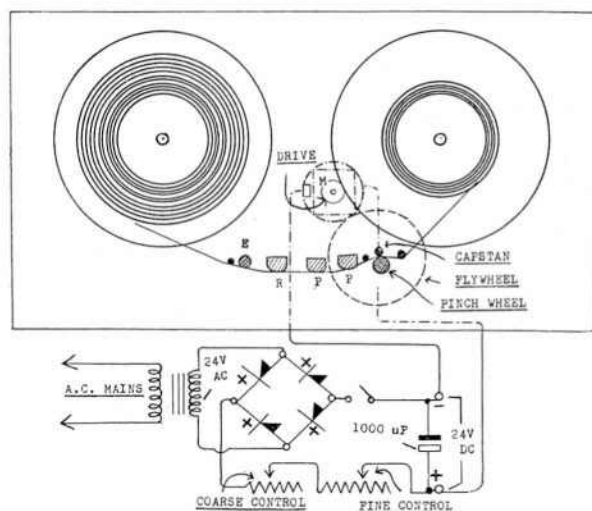
## The Morphophone

Another device used in the R.T.F. studio is the Morphophone, which is a closed loop playback device with ten playback heads. The main purpose of this apparatus is to provide artificial reverberation or echo of variable form and colour.

Another special instrument permits the envelope belonging to one sound to be superimposed on another; thus a plucked string may be superimposed upon a steady sound. Nearly but not quite the same effect can be achieved by normal superimposing with an ordinary tape recorder. The tape is then cut on the attack of the new but superimposed sound.



*Composer Luciano Ferrari producing sounds for musique concrète at the R.T.F. Studio in France.*



M—24V D.C. motor  
R—Record head

E—Erase head  
P—Playback heads for reverberation and monitoring

## Use the piano

Many composers of musique concrète make extensive use of the piano as a sound generator. Most unorthodox methods of extracting the sounds are used. In the picture above the composer is using small felt hammers to vibrate the strings, into which a bell has been wedged, presumably to make use of them as a mechanical echo system. Small

glass pebbles are also being used to produce vibrant effects like the snare wires on a trap drum.

Another technique is to scrape along the copper-bound bass strings with a piece of metal, which produces an extremely resonant sound with its own echoes. The short section of strings between the bridges and tuning keys are also used for producing extremely fast and high-pitched arpeggios. This is done by running a plectrum along the strings.

## Inside tip

Incidentally, when recording sounds of this nature, work with the microphone inside the piano. The large studio grand piano lends itself to this sort of work, but by carefully removing the hammer mechanism of an ordinary upright you will have full access to all the strings.

There are many other techniques which, if readers would like to know more about them, I will deal with in another article. In the meantime I shall be interested to hear from tape clubs and individual readers who are indulging in this new art of making sound patterns and music with tape.

← Modified tape deck arrangement for special recording techniques.

The D.C. motor drive provides variable speed between 2.5 ips and 40 ips. The extra replay heads can be used for controlled echo effects or monitoring.



1



2

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*Tandberg VI Stereo	110 gns.		

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News of two new microphones ... a handy tape tuner which needs no aerial ... and a review of the Fi-Cord 202. They're all in—

# THE SOUND SCENE



LEFT: The model VRP/69 Lustradyne cardioid microphone.

RIGHT: The Lustraphone model VR/70 Microdyne miniature ribbon velocity mic.



## NEW FROM LUSTRAPHONE

**T**WO more microphones from Lustraphone Ltd. are the model VR/70 Microdyne miniature ribbon velocity microphone and the VRP/69 Lustradyne cardioid.

The VR/70 incorporates an entirely new conception of magnetic circuit design, resulting in a unique miniature microphone head.

Provisional specification details are:

**Sensitivity:** Low impedance 90 dB below 1V/dyne/cm<sup>2</sup>.  
High impedance 56 dB below 1V/dyne/cm<sup>2</sup>.

**Frequency response:** Substantially flat between 50 and 14,000 c/s.

**Directional characteristics:** Figure of eight.

**Impedance:** Low, line or high as required.

**Connections:** Low and line impedance—20ft. twin screened and sheathed cable. High impedance—9ft. low capacity co-axial cable.

The VRP/69 Lustraphone cardioid microphone is a truly multi-purpose design coupled with variable directional characteristics. While the operating principle is the conventional combination of a pressure operated moving coil unit and a

pressure gradient ribbon unit, special features are incorporated which provide exception versatility in application.

Provisional specification:

**Frequency response:** Substantially flat between 50 and 13,000 c/s.

**Impedance:** Low, line or high impedance as required.

**Output level:** Low impedance 90 dB below 1V/dyne/cm<sup>2</sup>.  
High impedance 56 dB below 1V/dyne/cm<sup>2</sup>.

**Front to back ratio:** Average 15 dB in cardioid positions.

**Finish:** Satin chrome.

## THE STUZZI TAPE TUNER

**T**HIS remarkable little transistorised tuner operates from an Ever Ready PP3 battery and is completely self-contained. Its tuning range covers the medium and long waves, taking in all BBC Home stations and the medium and longwave Light Programme.

It plugs straight into the radio or microphone socket of the tape recorder and normally requires no aerial. In the London area, some 15 miles from the Brookmans Park transmitters, it will receive the Home and Light medium wave stations without interference on its own built-in ferrite aerial. Away from high-powered transmitters it will receive the stronger foreign stations.

Controls are provided for station separation and sensitivity, and the tuner will run for 500 to 1,000 hours before the battery needs replacing. There is a socket for an external aerial, and the tuner is available with different plugs for the tape recorder. Type J is fitted with a jack plug, type C with a continental plug, and type P with a phonoplug.

Price is £5 9s. 6d. including purchase tax. It is obtainable from dealers or Recording Devices Ltd., 44 Southern Row, Kensington, W.10.

## THE MAGNETOPHON AUTOMATIC

**T**ELEFUNKEN have produced the world's first fully automatic tape recorder, the Magnetophon Automatic. It is a highly sophisticated piece of equipment on which the controls have been brought down to the barest essentials.

There are, in fact, five controls—record, stop, playback, re-wind and volume. The need for an on-off switch, recording level control and input selector switch have been eliminated,



The Stuzzi tape tuner.

their functions being taken over by the automatic control system.

Whatever the volume of sound, there is no recording level to adjust; yet the full dynamic range of music is captured by the automatic recording level device. The magic eye has been retained only to convince the sceptics that this is working.

The new machine is mechanically identical with the '70' series of Magnetophon recorders, of which over 400,000 are in use. Tape speed is  $3\frac{1}{2}$  ips.

The machine automatically selects the point at which the tape and stop feature comes into operation. The metal foil does not operate the tape and stop mechanism at the beginning of the tape, but only at the end or after rewinding or forward winding.

The fact that the valves are constantly under current so that they are permanently pre-heated does not cause them to deteriorate more rapidly, it is claimed. On the contrary, it appreciably extends their working life.

The Magnetophon Automatic is priced at 53 gns.



*The new Telefunken Magnetophon Automatic.*

## THE FI-CORD 202

Reviewed by F. C. Judd, A.Inst.E.

ONE of the portable tape recorders I took with me on my tour of the northern clubs (see p. 11) was the new Fi-Cord 202, which was undergoing field tests for the first time. It actually travelled as far north as Inverness and as far south as Beachy Head, being frequently used and demonstrated. After this it was subjected to the usual bench tests, the results of which are given in this review.

The Fi-Cord 202 portable battery/mains recorder is a completely new and interesting design, incorporating many features which portables have lacked in the past. It has, for example, a recording level meter, battery cassettes, and sensible jack-plug sockets for inputs and outputs. It also provides for a clear view of tape spools when in operation; the control panel is readily accessible during operation; there is a tape position indicator, and so on.

### Power supplies

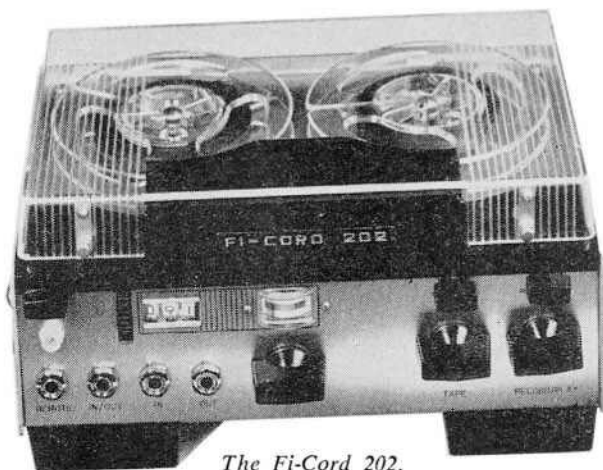
The picture shows the recorder out of its leather case. Yes, it's real leather, and you can have your initials affixed to it in attractive gold letters. What look like two wide feet at the bottom of the picture are actually the battery carriers, each containing seven mercury cells. From these the Fi-Cord 202

will run for approximately 20 hours at  $7\frac{1}{2}$  ips or 30 hours at  $3\frac{1}{2}$  ips.

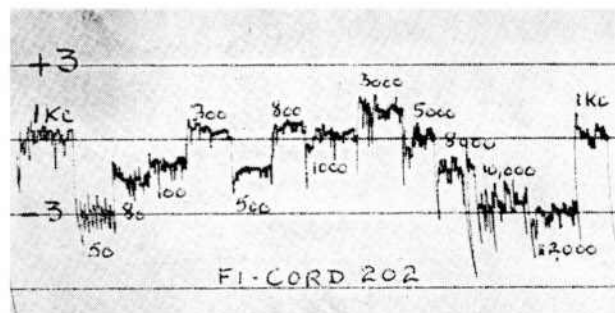
Special electronic mercury batteries are available which give a running time of about 60 hours for either speed. A special A.C. mains supply unit is also available for general use indoors.

Apart from its other unique features the 202 has fast forward and reverse re-wind, which it does in  $1\frac{1}{2}$  minutes in reverse or  $2\frac{1}{2}$  minutes forward for a 4in. spool of long play tape. Maximum spool diameter is 4in. and the spools lock on, which means that the 202 can be operated at any angle.

There are two input sockets, one for microphones with impedances between 200 and 1,000 ohms—such as a Grampian 600 ohm DP4—and one for mics with impedances between 20 and 200 ohms. There is also an output socket which provides a maximum signal output of 1 volt.



*The Fi-Cord 202.*



*Fig. 1: Pen graph showing frequency response for  $7\frac{1}{2}$  ips.*

At the time of compiling this review, full technical details were not available. For instance, the 202 has an automatic volume control system; but, having no technical explanation or circuit of the system adopted by the designer, I could apply no specific tests.

### Advantages

I did discover, however, that an input signal could be increased by some 8 to 10 dB above the meter-indicated maximum before distortion occurred (without AVC). When the AVC is in use signal limiting can occur on extremely loud signals. But, used sensibly, an AVC system does have certain advantages, especially when recording during interviews.



The 202 was tested with reference to the maker's technical specification which appears below. Tape speeds ( $3\frac{1}{4}$  and  $7\frac{1}{2}$  ips) were found to be quite accurate when compared with a standard mains recorder and recorded tones of known frequency. Wow and flutter content was within the specification given, and though the figures of 0.3 per cent and 0.4 per cent r.m.s. may seem a little high when compared with a good class mains machine, one must take into account the fact that the 202 has a

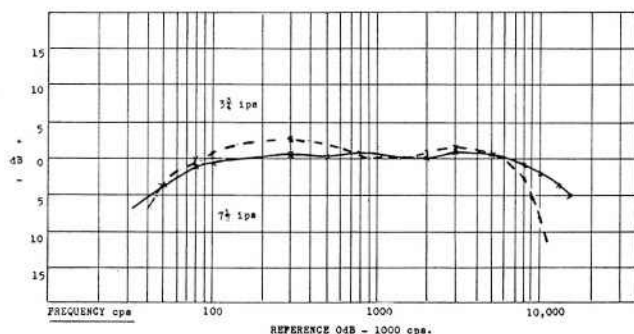


Fig. 2: Frequency response of the Fi-Cord 202 for  $3\frac{1}{4}$  ips and  $7\frac{1}{2}$  ips—record to playback. See also Fig. 1.

D.C. drive motor. Unless one attempts to record slow orchestral music, a wow and flutter content of 0.3 per cent r.m.s. is of no consequence.

The pen graph (Fig. 1) shows the plotted frequency response for  $7\frac{1}{2}$  ips, which is the overall response from microphone input, via the tape, to the output socket and therefore takes into account both record and playback performance. The curves of Fig. 2 show the response for  $7\frac{1}{2}$  ips, taken from the pen graph, and for  $3\frac{1}{4}$  ips, also from a pen graph.

## Performance

The 202 was subjected to 2,000 miles of car travel, a good deal of it over rough mountain roads in Scotland. It was fre-

## TECHNICAL SPECIFICATION

**Dimensions:** 9in.  $\times$  6 $\frac{1}{2}$ in.  $\times$  4 $\frac{1}{2}$ in.

**Weight:** 6 $\frac{1}{2}$ lb. including mercury batteries.

**Speeds:**  $7\frac{1}{2}$  ips and  $3\frac{1}{4}$  ips.

**Frequency response:** 50 to 12,000 c/s  $\pm 3$  dB at  $7\frac{1}{2}$  ips;  
50 to 8,000 c/s  $\pm 3$  dB at  $3\frac{1}{4}$  ips.

**Wow and flutter:** Less than 0.3 per cent r.m.s. at  $7\frac{1}{2}$  ips;  
less than 0.4 per cent r.m.s. at  $3\frac{1}{4}$  ips.

**Noise level:** 50 dB weighted.

**Head gap:** 0.00014in.

**Erase frequency:** 60 Kc/s.

**Recording:** Half-track on  $\frac{1}{4}$ in. tape.

**Input:** Less than 0.2 mV at in socket for fully modulated tape.

**Output:** Maximum 1 V at out socket; this will not fall below 0.8 V when loaded with 100 ohms.

**Time to reach stable speed:** Without tape being driven—  
2 $\frac{1}{2}$  secs. at  $7\frac{1}{2}$  ips; 2 secs. at  $3\frac{1}{4}$  ips. With tape drive engaged—5 secs. at  $7\frac{1}{2}$  ips; 3 secs. at  $3\frac{1}{4}$  ips.

**Loudspeaker:** Built-in 3in.—20 ohms. Output 180 milliwatts.

**Direct line recording:** Voltage required to load tape to standard level—0.2 mV.



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quently hauled out of the car to record interesting sounds en route, and by and large subjected to some fairly rough usage.

It makes a good recording at either speed and is very comfortable to operate. A feature which should appeal to sound collectors is the remote control socket which enables the recorder to be switched on to full recording from a distance—handy for capturing sounds that won't come to the microphone in the presence of the operator. All that is required is a small jack, a length of twin cable and a switch.

There is a built-in 3in. loudspeaker, allowing recordings to be played back on the spot, and the tape-head cover can be removed to provide access for cleaning.

The Fi-Cord 202 gives the sort of performance one would expect from a portable machine of its class. It is well designed, engineered and finished, and has all the facilities one could wish for those occasions when only a portable will suit the assignment. It retails at 66 gns. complete with a set of Mercury batteries, a spool of tape and spare spool.

The leather case, with carrying strap and leather microphone pocket, is 9 gns.; A.C. mains power supply, £7 10s.; car battery power pack, £5 10s. The recommended microphone is the Beyer type M.119, price £13 17s. 6d. Manufacturers and distributors are Fi-Cord International, 40a Dover Street, London, W.1.

## BRAND FIVE TAPES TEST

WE HAVE tested samples of two more Brand Five magnetic recording tapes which proved completely satisfactory. These are type 15D5M 1.5 mil Mylar, and 15D5 1.5 mil Acetate. Prices of these and other Brand Five tapes are available from dealers.

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# TAPE GUIDES

## Azimuth alignment

**T**APES are often required to be played back on another machine. To achieve this without playback loss of the high audio frequencies, recording and playback direction of the tape must be exactly at right-angles to the head gap. In other words, the head gaps of the machine on which the tape was recorded must be absolutely parallel to that of the machine on which the tape is to be played back.

The position of the head gap has been standardised, and the specification for the angle formed between the direction of the tape and the head gap is 90 deg.

BASF have just introduced a 'white noise' test tape which enables accurate head alignment by aural evaluation alone, without need of measuring instruments. The recording consists of a noise spectrum which, at a tape speed of  $3\frac{1}{4}$  ips, covers frequencies from 5,600 to 16,000 c/s. At a speed of  $1\frac{1}{2}$  ips, the range of frequencies covered is from 2,800 to 8,000 c/s, and at  $7\frac{1}{2}$  ips from 11,200 to 16,000 c/s.

Suitable for two or four-track recorders, this test tape is available from dealers or from BASF Chemicals Ltd., 5a Gillespie Road, London, N.5. Price is 7s. 6d., which includes packing and postage.

● **Have you a practical tip that will help other readers? A guinea is paid for each one published. Send your tip to 'Tape Guides', Amateur Tape Recording, 168 Regent Street, London, W.1.**

## All about microphones

Every tape recording enthusiast should have a copy of *Microphones*, by G. R. Pontzen, A.M.Brit.I.R.E. Probably the only one of its kind, this booklet contains the most up-to-date information about microphones, their classification, operation and practical application.

It is divided into three sections. Part 1 deals with classification, and covers a good deal that is little known outside the manufacturing and professional world. Part 2 deals extensively with constructional data about different kinds of microphone.

Part 3 answers many questions posed by technical and non-technical recordists, for it deals with their application in practice. There is a most comprehensive impedance matching data chart covering every type of microphone and equipment input impedance as well as recommended cable lengths.

The author of this booklet is the technical manager of Lustraphone Ltd., and an authority on microphone design and use. It is priced at 3s. 6d. and available from United Trade Press, 9 Gough Square, London, E.C.4.

**Here's another page of useful tips and information for those who want to improve their technical know-how**

## Magnetic tape rubber

Originally designed for sealing purposes, magnetic rubber strip has proved itself useful in tape recording. Quite flexible, it feels and looks exactly like rubber. But because the magnetism is strong enough to erase tape, it lends itself to spot erasing.

It can be cut quite easily and, given a thin wedge shape at one end, is ideal for removing clicks and other unwanted sounds which occupy a short length of tape. Available from Tutchings Electronics Ltd., 14 Rook Hill Road, Friars Cliff, Christchurch, Hants., it costs 2s. 6d. per 4in. length, plus 6d. packing and postage.

## Audio amplifier testing

Designers, manufacturers and technical enthusiasts of high fidelity amplifiers will be interested in a new publication by the Audio Manufacturers Group of BREMA.

*Specification for Methods of Measuring and Expressing the Performance of Audio Frequency Amplifiers* deals with methods of testing and gives various recommendations as to acceptable performance. It may be obtained from 49 Russell Square, London, W.C.1, price 11s.

## Emiguide No. 6

An addition to the collection of popular Emiguides deals with producing *Feature Tapes*, of which John Borwick gives some excellent examples. Such items as fading, scene setting, sound effects, and background and introductory music are all thoroughly dealt with.

Those who already have the other five Emiguides can now send the coupons enclosed with each one for a free plastic tray which holds all six boxes, with a seventh position for a possible later issue. Emiguide No. 6 is, like the others, obtainable from dealers or EMI Tape Ltd., Hayes, Middlesex, price 7s. 6d.

## Accessories For Your

### The Nusound "Numix"

# Ferrograph

The "NUMIX" is a convenient mixer which enables a Ferrograph user to mix and fade at will two programmes, from microphone and radio/radiogram. Alternatively, speaker output sockets from power amplifiers can be used. Any combination of two programmes is possible with the Nusound "NUMIX" device. Price : £4. 7. 6. Radio Lead complete 7'6.



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Edited by  
**TERRY NURSE**

#### For the old folk

**CLACTON** Tape Recording Society is starting a service for the old folk. Chairman N. Turner is being helped by the local branch of Toc H in presenting a musical tape every week at the local hospital. Ivor Novello's *The Dancing Years* was taped by two members for presentation at the hospital and to a blind club.

The society has been given the use of a garage which is to be turned into a

sound studio and control room, to be equipped with a three-channel mixer now being constructed by two members.

#### Much activity

**Derby Tape Recording Club** reports an active season, with a recorded quiz each month and a club competition every six weeks (recent subjects: a journey into space, a TV commercial, a shaggy dog story). Several live recording sessions have featured The Sapphires, a local electric guitar group, the Derby Light Orchestra, and a village choral and organ recital.

Feature tapes have also been made of the Fire Service, and future visits are planned to a china works and a chocolate factory. A club treasure hunt and social, a brass band recording and a visit to Coventry club are also planned.

#### Lively youngster

**Halesowen & District Tape & Hi-Fi Club**, though only a few months old, has started a hospital service, held two competitions, a quiz and two demonstrations, and recorded church services. Future activities include recording sound effects, a tape feature on Halesowen, and exchange club visits.

#### Quiz Champ

**Ilford & District Tape Recording Society** now meets at Gants Hill Library. Ken Hartman won the first club quiz with a score of 15 out of 16. He will compete in the finals later for Club Quiz Champion of 1962. Quick tip from Ilford's *Audio Star*: "Those worn out U2

batteries from your portable will still give a brilliant light if used in your flashlight."

#### Writer Taped

**Liverpool & District Tape Recording Society** recorded a recital given by leading organist Dr. Caleb Jarvis and the Celia Choir, Christ Church, Bootle.

The club has also recorded Frank Shaw, president of Merseyside Civil Service Writers' Club, who was script writer for the prize-winning television documentary *Morning in the Streets*, dealing with Liverpool slum life. He also made the tape recording perpetuating the Liverpool dialect which is now in the Liverpool Record Office archives.

#### Famous organ

**Leeds Tape Recording Club** has also been organ recording—at the Town Hall, where they taped the famous pipe organ.

#### At the dentist's

**North London Tape & Hi-Fi Club** went to church to record hymns sung by the choir of St. Luke's, Enfield. Result: half a dozen tunes on tape for playback at the War Memorial Hospital.

A talent contest at Paddington, open to members of clubs for the blind in Middlesex, provided a wide range of performances from monologues to piano solos for members to record. Requests have been received from several contestants for copies.

Committee member Ray Maslin has won yet a fourth club competition, this time for entries in a 'Visit to the Dentist'

SEE NEXT PAGE

## A NATIONAL CONVENTION NEXT YEAR?

**THE** convention idea is growing among tape recording clubs, and future venues are already the subject of healthy competition in the Midlands. Will it be Rugby or Northumberland next year? Perhaps both...

It was **Rugby Amateur Tape Recording Society** which set the fashion in 1959, when it staged a TR course for members and turned the final night into a convention of clubs from the Midlands area. The get-together was so popular that it has become an annual event.

This year it was held in the evening of the same day (May 24) that American astronaut Scott Carpenter made his triple-orbit flight, giving club president Mr. J. O. Bannister ample excuse to underline the importance of tape in communications.

Examining things nearer home, he looked forward to next year's convention lasting a full day, if enough clubs would support it.

There was no lack of support for the very full evening at the Red Lion in Sheep Street, which was very adequately recorded. Out of twelve clubs whose patronage was expected or hoped for, seven were well represented and the attendance was so great that many had to stand at the back.

Besides Coventry's two clubs, Birmingham, Northampton, Nottingham, and Warwick and Leamington Spa all sent delegates who gave reports on their activities. Also in attendance were F. C. Judd, technical editor of *ATR*; Terry Nurse, club news editor, *ATR*, and Alan Lovell, *The Tape Recorder*.

Great interest was aroused by the announcement by Mr. Judd that *ATR* was in process of compiling a tape library that would include examples of his musique concrète and electronic music, with other valuable reference items to which clubs could have access.

Terry Nurse referred to the Social

Service Centre and said there were now more than 60 tapes available to clubs for use in humanitarian work.

#### JOINT EFFORT?

There is no doubt that this event now deserves to be known as the Midlands Convention. How long will it be before it is superseded by a more ambitious, even auspicious, annual assembly?

It appears that Northampton, which still holds top place in the *ATR* Club League, has plans for an 'even greater' convention for Midlands clubs next year. But though friendly rivalry is to be desired, wouldn't it be better in this instance if Rugby and Northampton pulled together to organise jointly a national convention that would set the tape club world agog?

Organising such an event has its difficulties, but if they can be overcome it will attract delegates from north and south.





Members of Thornton Heath Tape Recording Club interview Cliff Richard between shows.

contest. This brought forth much clever scripting and imaginative use of sound effects. Extracts from some entries will be used on a news tape issued by Enfield Toc H to blind people.

### Gala Day

Nelson and District Tape Recording Club now has 20 members, most of them in the 'teen and 20' age group. When the local hospital staged a Gala Day the club entered a vehicle in a procession through the streets and had a stand on the football field. A full recording of the gala was made, with commentary and interviews, for presentation to the handicapped.

Many young members have already produced their own programmes for old people and the blind.

### Studio tour

South Devon Tape Recording Club visited a lecture given for Torquay Gramophone Society by Mr Leslie Guest on 'Symphony in sound and colour.' They also went to Broadcasting House, Plymouth, for a conducted tour of the BBC sound and TV studios, and recorded a one-act play written by member David Pletts.

# NORTHAMPTON STILL TOP OF THE LEAGUE

## Youth at the helm

A club formed at Stourbridge has started off on the right foot by launching a hospital request service at Prestwood Sanatorium. The first programme produced 20 requests for records; the second twice that number.

The club hopes to record church services for regular playback to the patients, and to meet requests for personal messages. The 14 members have also been occupied with demonstrations, film shows and competitions—and both the club's founders are only 17 years old!

## On the air

Swansea Tape Recording Society was featured in the BBC programme 'Welsh Magazine' when reference was made to its work for the sick, the blind and aged.

The society provided music and public address facilities for the West Cross Community Centre at their annual exhibition.

## WIN THE TROPHY!

Let us know what you're doing. Send your news to ATR and enter the race for a special Clubs Trophy. Full details in the August issue.

## One year old

Thornton Heath Tape Recording Club held their first AGM, a social night, and the first heats in a competition at the Red Cross, Addington branch. The winner will get a recording test with a leading disc manufacturer. The club will also record the winner, so it will be interesting

## THE LEAGUE POSITION

	Pts.
1. NORTHAMPTON	28
2. THORNTON HEATH	27
3. RUGBY	22
4. WHITSTABLE	18
5. MEDWAY	14
6. SWANSEA	13
7. CAMBRIDGE	11
7. NORTH LONDON	11
9. BIRMINGHAM	10
9. HULL	10
9. WALTHAMSTOW	10
12. BATH	9
12. CARLISLE	9
12. LIVERPOOL	9
15. SOUTH DEVON	8
15. WEST MIDDLESEX	8
17. BROMLEY	7
17. NELSON	7
19. DERBY	6
19. SOUTH BIRMINGHAM	6
19. WARWICK	6

to compare amateur and professional results.

Peter Hadley presented the first episode of a new mystery thriller serial, and other members will take turns in developing the plot.

## Hobby broadcast

Terry Devereux, ex-secretary of the London club, and members of the West Middlesex Tape Recording Club were heard being visited by Peter Colbourne in *Time Off*, a programme on hobbies broadcast in the BBC's *In the South-East* feature.

## Sounds historic

At Whitstable & District Tape Recording Club, Bill Blake presented the second of his 'Generation of Sound' tapes covering events up to and including the last war. Secretary Tom Robins gave another in his talks on elementary matters, and Bill Austen and Stuart Addison presented the second part of the members' thriller serial in which many weird and wonderful sound effects were introduced.

## TOP TEN CLUBS FOR JULY

- |                 |                   |
|-----------------|-------------------|
| 1. RUGBY        | 6. WEST MIDDLESEX |
| 2. NELSON       | 7. STOURBRIDGE    |
| 3. SWANSEA      | 8. CLACTON-ON-SEA |
| 4. NORTH LONDON | 9. HALESOWEN      |
| 5. DERBY        | 10. LIVERPOOL     |

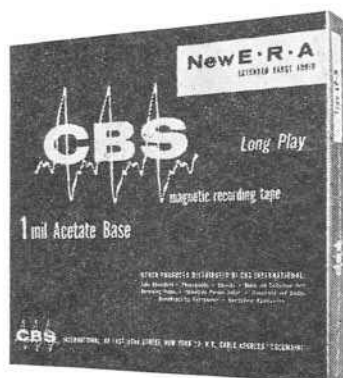
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TA-1M



S-88



USC-1

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**HI-FI STEREO 6W. AMPLIFIER**, Model S-33. Only 0.3% distortion at 2 $\frac{1}{2}$ w/chl. . . . . £12.8.6.

**HI-FI 12W. POWER AMPLIFIER**, Model MA-12. Generous auxiliary power supply (single channel) . . . . £10.19.6.

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Amateur Tape Recording & Hi-Fi

*The mighty Wurlitzer is no longer with us . . . but its farewell echoes are captured on tape for those who care to listen. Reviewer STAN WHITE cares a lot.*

# tape parade

**Final night at the Troc. Bobby Pagan, Sydney Gustard, Denis Mathew, Robin Richmond, George Blackmore, F.R.C.O., and Jackie Brown at the 4/21 Wurlitzer theatre pipe organ once installed in the Trocadero Cinema, Elephant and Castle, London. Esoteric (Tape Of The Month Club). Dual ½-track mono., 3½ or 7½ ips, 40 mins.**

This programme, played on one of the finest Wurlitzer organs in the world, is a commemorative one. The recordings were made at the final recital on the organ arranged by the Cinema Organ Society before it was removed from the theatre with the aim of finding a new and permanent home for it.

The programme is linked together by an informative commentary by Alex Campbell Gifford, a former editor of *Cinema Organ Herald* and a director of the tape firm. While the reproduction maintains a generally good standard, there are noises from the audience which are beyond the control of the recording engineer, in this instance Andre Smith.

This is an edited version of the original recital, which lasted an hour longer. The performers gave their services free, and profits from the sale of this tape will go to the society to help pay off the debt on the great instrument now stored away for preservation.

It is pleasantly nostalgic to listen again to such famous organists as Sydney Gustard, who opens his recital with the signature tune associated with his hundreds of broadcasts from the Gaumont Palace, Chester, 'In an old-fashioned town.' Outstanding is Jackie Brown playing 'Chloe' in his inimitable lush style, and George Blackmore's wonderful performance of 'The Lost Chord,' which shows off the great organ at its very best.

**Strictly For Dancing. Esoteric (Tape Of The Month Club). Dual ½-track mono., 3½ ips, 1 hour.**

This tape features an excellent big band much like our own Joe Loss. I

suspect that the bulk of the work is carried by the Hollywood Sound Stage Orchestra, which is augmented with strings and various solo instruments—sax, clarinet, trumpet, accordion, piano—as called for, and the resulting sound is very pleasing.

Though the title suggests that this is for dancing only, listening enjoyment is also to the fore and a whole range of popular tunes is presented by the big, well-orchestrated band. Among them are 'Who's sorry now?' 'I can't give you anything but love' and 'Cheek to cheek'.

**March Time. Band of the High School Cadets. Esoteric (Tape Of The Month Club). Dual ½-track mono., 3½ or 7½ ips, 40 mins.**

This is the famous band to which Sousa paid a permanent tribute in his composition 'High School Cadets', and

the present-day combination lives up to the standard expected.

This is military music with a difference. For one thing, it is an American band playing marches in the tempo we know, not at a rate more suited to sprinters. The arrangements, too, are first class, with the whole band whistling in two numbers.

The fidelity on this tape is the finest I have heard for a long time; a most enjoyable recording all round.

**Sound of the Mammoth Fair Organ. Esoteric (Tape Of The Month Club). Dual ½-track mono., 3½ or 7½ ips, 40 mins.**

This new recording of fair organ music is the finest of its kind I have ever encountered. The huge Gavioli fair organ is heard to perfection beating out a selection of popular tunes, marches and old music hall numbers which will please everybody, young and old.

This is, in fact, the type of recording which will give pleasure forever, and I congratulate Esoteric on doing such a fine job of recording. Every note, percussion or pipe, is perfectly reproduced. The numbers include 'Lullaby of Broadway,' 'Wedding of the Painted Doll,' 'Waiting for the Robert E. Lee,' and 'Happy days are here again.' They are indeed.

## E.M.I. MEET DEMAND

To meet what is described as 'the undoubted demand for music on tape,' E.M.I. Records are to make regular monthly releases of best-seller music on 3½ ips tape from September.

As a prelude to this, a special issue of twin-track mono tapes on 5in. spools was made on June 15. Eighteen in all, they appear under various trademarks and feature popular British and American artistes. Prices are 35s. and 38s.



*Robin Richmond takes a smiling look at the audience before getting into his stride*

**RUSS ALLEN** picks out a record to excite tape addicts ... and one for Brubeck fans



**T**HE recording most likely to appeal to you this month is not necessarily my favourite, nor is it great music, but it is highly interesting and controversial. It emanates from a British lad, *Peter Ind*, who now lives and works in the U.S.A.

He is firstly a bassist, but this album he has also recorded, produced, directed and most everything else. It is clever stuff with lots of gimmicky tape work, double-tracking at different speeds an' all that.

There are eight tracks, all recorded at different times with different people, including another English boy, *Ronnie Ball*, a pianist of renown. Recording is very good, and if you've a rattle in your bass



then the 'Love me or leave me' track will find it. (It found mine, blast it!)

To put you in the picture regarding sound content, the music is jazz, modern and decidedly experimental, the quality very good and slanted basswise. It is to be found on *Looking Out: Peter Ind*, Esquire 32-159.

Likewise controversial, though for a different reason, is the latest flight of that genius of the Top Ten, *Dave Brubeck*, on

developed sense of rhythm and awareness of time signature.

Because they must be the most closely knit group in music, they manage to swing even in 11/4. The secret of their success is an integral happiness in their work and in each others' playing. An album of top interest, magnificently played. Get with their orbit and dig it.

From those two far-out items let us return to more basic jazz—to *Miff Mole and His Dixieland Band*, Esquire 32-160. This is just like old times; one of my earliest favourites. Miff has got together with some of his old buddies—pianist *Frank Signorelli*, *Jack Lesburg*, bass, *Chauncey Moorhouse*, drums—all still great, and they have been abetted by *Jack Palmer*, trumpet, and *Joseph Dixon*, clarinet. On four tracks, too, we have instead *Lee Castle*, trumpet, and *James Lytell*, clarinet.

It's a selection of good ol' good ones such as 'Fidgety Feet,' 'Exactly Like You,' 'Wolverine' and 'St. Louis'—twelve in all, and every one a Dixieland ball. Meaty jazz that did my heart good.

If you too like a drop of the hard stuff, climb aboard, man!

**The New Scene of King Curtis**, Esquire 32-161 is like a new scene for Curtis, who normally fronts a rhythm and blues group and has here backed himself a bunch of certs in *Nat Adderly* (disguised as 'Little Brother'), trumpet, *Wynton Kelly*, piano, *Paul Chambers*, bass, and *Oliver Jackson*, drums. It's recorded with lots of depth and separation and splendid jazz from everyone except for some dreary bowed bass by Chambers. Adderly is again the star but Kelly and Curtis, too, are right there.

Blowin', goin' modern jazz. Dad.

**CBS BPG 62013: Countdown — Time in Outer Space.** It is by the usual quartet, including *Paul Desmond*, alto, *Eugene Wright*, bass, and *Joe Morello*, drums.

Very much on their unusual time signature kick, the group is in fabulous form with items in 3/4, 5/4 and 11/4. Wow! If you are able to follow the intricate polyrhythms of this set, congratulate yourself on a highly de-

Lovers of the big sound couldn't do better than *The Exciting Terry Gibbs Big Band*, recorded live at The Summit in Hollywood. Lots of big names star the aggregation—*Bill Perkins*, *Richie Kamuca*, *Conte Condoli*, *Frank Roolino*, *Buddy Clark*, *Mel Lewis*.

It's somewhat reminiscent of the old *Herman Herd*: noisy, exciting, enthusiastic sounding with much shouting of exhortations. Ten tracks from medium to fast, with one 3/4, and naturally featuring quite a lot of Mr. Gibbs' vibraphone. Why not?

I enjoyed the screaming brass and excited rhythm. It gives the old set a work out as well. It's on **HMV CLP 1560**.

Probably the most satisfying album this month is *The Best of The Four Freshmen*, Capitol T-1640.

This highly talented vocal and instrumental group have been best sellers since about 1955 when Capitol released 'Voices in Modern,' a sensational disc then—and the boys are still sensational. Their



arrangements are wonderful, their execution even better.

Just like the label says, it's the best of the F.F. Twelve tracks, each one a gem. The more you hear, the more you listen. If you haven't heard them before, dig them now and become an instant fan.

Me, I'm a Sinatra fan. To me he is the most. But there are others who sing quite well, and if you're not so mad for Frank then you might care to *Linger awhile with Vic Damone* on Capitol T 1646. Twelve fine tracks with a superb instrumental backing, loads of sweeping strings, punchy brass and swinging rhythm by *Jack Marshall's Music*.

Vic has a smooth style and pleasant voice and girls swoon left, right and centre when you play them this. So get the disc and a couple of girls and let me know what happens.



# THE THINGS YOU SAY . . .

● Got a pet peeve to air? An opinion to offer? A query you'd like answered? All welcome here. Address: The Editor, A.T.R., Room 532, Ulster Chambers, Regent St., London, W.1.

## How Hi is Fi?

W. A. Hodges, B.A., Wanstead, E.11, writes:

Your June editorial makes sense. If the manufacturers, instead of being tricked into a war of attrition over frequency response ('Mine's better than yours, so there!') arranged for all their retail agents to keep an oscillator on the premises and show the customers how complete the aural cut-off is for most people at much above 15 Kc/s., they would save their designers headaches, themselves unnecessary expense, and their customers much disillusionment and irritation.

'Twenty-five thousand cycles, eh? You can't flipping well 'ear it, mate!'

Some instruction on just how Hi is Fi would not be out of place either. The first £50 spent after junking the old radiogram is usually justified and the curve of improvement is steep. With each successive £50 it grows rapidly less so until it becomes flat to infinity, and the deluded customer is just throwing money away for nothing—except, perhaps, illusory prestige or a bit of one-upmanship.

I have heard Fi that was so Hi it was like the draperies in a Lord Leighton painting; so 'real' that it was lifeless and unnatural, not resembling in the slightest a 'real' performance in a concert hall.

Which? and Similar magazines can do, and do do, a little to blow the gaff on our own particular brand of Hidden Persuaders. I think the tape recording and hi-fi mags, too, could do much more. But one does have to watch the advertising revenue, doesn't one? We know this, and give you full credit when you do blow some of the rubbish away from advertising claims.

*(This magazine will continue to comment on trends in the field and to review equipment without being influenced by the claims of manufacturers or their advertising agents—which, however, it will be glad to endorse whenever they prove justified.—Editor.)*

## Tapespondents' honour

A. C. Cleeve Sculthorpe, Coleshill, Birmingham, writes:

I begin to wonder why some of your readers advertise for tapesponding pals. Is it because they want a friend to exchange tapes with or because they find it a cheap way to get tapes?

During recent months I have sent a tape to four of your readers and have not had a single reply. In all cases I have sent a return address label with a sixpenny stamp, in addition to the one I sent earlier with the tape. Still no reply, and I have lost four 300ft. tapes.

From five readers of another magazine I have also received no reply—nor the return of five more 300ft. tapes. All these

are tape 'friends' in England. I have sent tapes to readers in Germany, U.S.A., Canada and Malta, and in all these cases they have been returned to me, and promptly.

It seems that tapespondents in any country but England can be trusted. Is there no bond of honour here these days?

*(We shall be glad to receive other readers' views on your experience, which seems more unfortunate—and costly—than that of most people who tapespond on a basis of mutual trust.—Editor.)*

## Waiting Period

G. Beddingfield, Wymondham, Norfolk, writes:

I have followed with some interest the letters criticising British manufacturers' delivery dates. It is my experience, though limited, that the same applies to Continental manufacturers.

After ordering a tape recorder I was informed that delivery would be in two or three days. I am still waiting after two months.

## Four-track query

Lawrence Smith, Sparkwell, Plymouth, writes:

Is it possible to use a four-track tape recorder to record a twin-track tape to be played back on a twin-track machine? I have experimented, but without success, though I understand that it can be done.

*(Yes; switch for recording on tracks 1 and 4, run the tape through, then turn the spool over and record again. The recordings will be on opposite tracks and will be replayable on a two-track machine. Do not use your tracks 3 and 4.—Technical Editor.)*

## Don't do it

H. S. McAusland, Loughton, Essex, writes:

As a comparative newcomer to tape recording, I wish to record from the television some of my favourite programmes.

My intention was to take leads direct from the low impedance terminals of the TV speaker transformer to the recorder. Can you advise me if this is practical or is there a better method? I would also like to know if a screened lead is necessary?

*(It is dangerous to connect a tape recorder to the extension socket of a TV set. Practically all TV sets have a 'live' chassis—i.e., there is a direct connection between the chassis and one side of the incoming mains supply. If you wish to record the TV sound channel, have a competent service engineer fit a suitable isolating transformer and a lead for connection to your recorder.—Technical Editor.)*

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**In next month's A.T.R.**

## SET UP YOUR OWN FX DEPARTMENT

By F. C. JUDD, A.Inst.E.

A train crash? A storm at sea? This really practical article tells you how to make sound effects tracks for tape and cine in the way that the FX men do in film and broadcasting studios.

### THE ART OF CLEAN SOUND

By A. TUTCHINGS, M.B.K.S., M.B.S.R.A.

The second in our series of articles by an expert on Tape and Cine explains the pitfalls to avoid in making voice tracks for your cinefilm.

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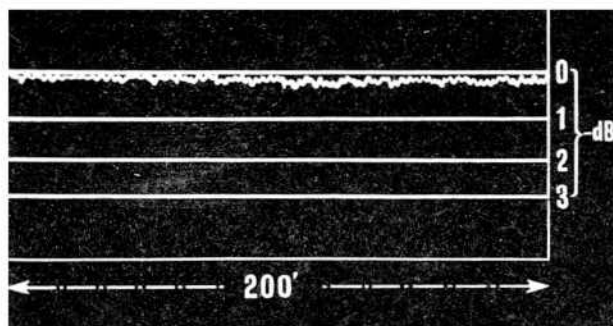
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## This is an outline . . .

of the penrecording made by  
F. C. Judd, A.Inst.E., Technical Editor  
"Amateur Tape Recording"

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# THE TAPE DIRECTORY

the tape directory

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## AUSTRALIA

JOHN TOOMBS, age 37, journalist, P.O. Box 101, Denmark, W. Australia. Many interests; enjoys all types music. Pye-Tecnico 2-track, 7in. 3½, 7½. **U.S.A., U.K., Japan, Indonesia.** Only English spoken.

KENNETH F. WILLIAMS, 38, X-ray and medical sales representative, 24 Waratah St, Mona Vale, New South Wales. Hi-Fi, 8mm. movies, the unusual, Siamese cats, classical music, Broadway shows. National RQ702 2-track, up to 7in., up to 7½ ips. **Japan in particular, anywhere else English speaking.**

## GERMANY

J/T TOZE, 23, G.W.F. Station Signals, R.A.F. Wildenrath, B.F.P.O. 42. Hospital and Blind representative, R.A.F. T.R. Society. Telefunken, 7in. 3½, 7½. **Anyone interested in enlarging scope of messages to blind and hospital patients, R.A.F. and civilian.** Please contact immediately by tape or letter.

## NORTHERN IRELAND

WILL CORRY, 18, library assistant, 82 Haypark Avenue, Ormeau Rd, Belfast, 7. Films, football, cigarette cards, reading, photography; pop, country and western, jazz, Rodgers & Hammerstein. Elizabethan FT1, up to 5½in. 3½. **Anywhere, either sex, preferably in age group 16-30.**

JOHN McCOURT, 22, storeman, 49 Bright Street, Belfast, 5. Collecting records, country and western. Brenell Mk.5, 8½in. 1½, 3½, 7½, 15. **C/W fans all over the world, especially U.S.A. and Canada.**

KENNEDY O'CALLAGHAN, 16, schoolboy, 'Calmur,' Beaumont Park, Ballintemple, Cork. Stamp collecting, tape recording, Gilbert & Sullivan, general; no pops. Grundig TK8, up to

7in. 3½, 7½. **Any English speaking contact.** No letter needed, all tapes answered.

## SINGAPORE

KENNETH WILLIAM THOMSON, 20, signalman, A Troop, 1 Sqn. (OPS), 18th Signal Regiment, Princess Mary Barracks, c/o G.P.O. Singapore. Philately, folklore, general; anything except high classical. Akai Terecorder De Luxe dual track, up to 7in. 3½, 7½. **Anywhere English speaking or English/Esperanto, English/German, English/French.** All tapes answered.

## SOUTH AFRICA

M. J. NEL, 36, marine intelligence officer, Dale Lodge, Smithers Road, Kenilworth, Cape Town. Tapesponding, photography, touring, charity work; pop, Miller, Dorsey, Caribbean, Continental. Philips 2 and 4-track, 5in. 3½. **Britain, Continent, U.S.A., Australia, Far East.** English speaking only. No letter needed, all tapes answered.

R. J. WALKER, 18, Teachers' Training College, 3 Second Avenue, Linden, Johannesburg. Radio, films; classical, rock, jazz. Walter 101, 5½in. 3½. **U.S.A., Canada, Australia, English speaking.**

## U.S.A.

BOB SIMONTON, 28, cinema film buyer, 1939 S. Holt Avenue, Los Angeles, California. Films, photography, film music, pop, some classical. Recordio Stereo, 7in. 3½, 7½. **Anywhere English speaking, preferably female between 18-30.** Would like to hear from cinema exhibitors or persons related to film production.

HARVEY WILLIAMS, 51, upholstery and carpet cleaner, 2820 Lincoln, Chicago, 13, Illinois. Outdoor, hiking, fishing, dogs; all kinds music. 7in. 3½, 7½. **Shetland sheep islands.** Will answer all tapes.

## BEDFORDSHIRE

ALAN MORRIS, 18, technical asst. valve engineer, 42 Kirkwood Road, Luton. Methodist; youth work, all kinds music, mainly jazz and electronic. Elizabethan Major 4-track, 3in. up to 7in. 1½, 3½, 7½. **Anywhere English speaking, male or female.**

## BUCKINGHAMSHIRE

DAVID BURRAGE, 26, accounts clerk, Unit Accounts, R.A.F. High Wycombe. Scouting; classical and light music. Rep R10 4-track, 7in. 1½, 3½, 7½. **Anywhere English speaking.**

## CHANNEL ISLANDS

A. SYDNEY COTTERILL, 44, clerk, 'West Cliff,' Brock Road, St. Peter Port, Guernsey. Osteopathy, choir training, watch and clock repairing, first aid, colour photography, do it yourself; light classics, theatre and church organ. Philips AG8107, 7in. 1½, 3½, 7½. **Anywhere, particularly U.S.A., G.B., Canada, N.Z., Australia.**

E. F. GUY, 48, store manager, 1 St. Anne's Terrace, Richelieu Park, St. Helier, Jersey. Unusual sounds, geographical news; brass band, religious. 2 or 4-track, up to 7in. 1½, 3½, 7½. **English or French speaking, especially interested in blind or handicapped persons.**

## CORNWALL

TOM BETHELL, 42, engineer, 13 Lansdowne Court, Alverton, Penzance. Work, travel, radio; all good music, no rock or jazz. TK20, 3in. to start, 3½. **Anywhere, preferably U.K.** All tapes answered. Would like to hear from new recordists, male or female, and experts.

## HERTFORDSHIRE

BRIAN HYDE, 25, compositor, 241 Pankhurst Crescent, Stevenage. 35mm. photography, tropical acquaria; jazz, trad and modern. Brenell 3-star, Grundig TK1, up to 7in. 1½, 3½, 7½. **Anywhere, especially U.S.A., N.Z., Australia.**

## KENT

J. F. DAVIDSON, 48, decorator, 99 Wilson Avenue, Deal. Salvationist; brass band, light to classical, not jazz. Philips EL3542, up to 7in. 1½, 3½, 7½. **Anywhere, especially U.S.A., Canada.** English speaking only.

GRAHAM HAYLOCK, 15, student, 53 Elmstead Lane, Chislehurst. Drama, acting, travel; popular classics. Civic, 5in. 3½. **N.Z., Australia, preferably boy or girl own age.**

KEITH LEWIS, 29, storeman, 108 Park View Road, Welling. Butterflies, moths, insects, photography; classical. Philips CR1601, 5in. 1½, 3½, 7½. **South America, Australia, N.Z.**

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## SPOOL TALK

### *A code of conduct?*

**D**OES taping need a Code of Conduct? The letter we publish this month from one who has paid dearly at the hands of correspondents who don't respond suggests that it does.

A Canadian reader who prefers to remain anonymous, in case he loses the goodwill of his friends, offers a few suggestions towards a set of rules which he thinks those who undertake taping should strictly observe—in their own interest as well as their fellows'.

### **Ambassadors**

He considers they should apply especially to international taping, since those who exchange messages with others overseas act as ambassadors for their respective countries, which may be judged by their personal conduct. Our 'Things You Say' contributor, however, has found his own countrymen the worst offenders.

Here are some of the suggested rules of etiquette for taperspondents:

1. *Answer all tapes within seven days. If you delay, send by airmail or your contact may lose faith in you.*
2. *Pack tapes securely and be sure correct postage is affixed. Remember that it means hard cash to your contact.*
3. *Use good tape, or make certain any splices are strong and durable. There is nothing worse than having to make up for someone else's carelessness.*

### **Give answers**

4. *Make notes of recordings as you play them and be sure to answer all questions asked by your contact, who is probably anxious to learn more about your country.*
5. *Play back your tapes to make sure they are fit to send out. Why send a faulty or useless message hundreds, even thousands of miles?*
6. *If background is added let it be music, not babies crying or children shouting. Don't send recordings including coughs, sneezes, and orders to your child to be quiet or your dog to lie down.*

The list of do's and don'ts could be extended indefinitely. It is something the taping organisations might well take up with a view to establishing a comprehensive rule book of etiquette for spool-talkers.

## THE TAPE DIRECTORY—continued

### **LANCASHIRE**

JOAN HOLGATE, 22, storekeeper, 121 Chestnut Grove, Bootle, 20. Photography, sport; pop and film music. Philips EL3536, up to 7in. 1½, 3¼, 7½. **Anywhere.**

### **LEICESTERSHIRE**

RUBY SARGENT, 50, cashier, 196 Leicester Road, Wigston. Music (play guitar and accordion) from pops to classics. Elizabethan, up to 5¼in. 3¼. **Anywhere English speaking.**

FRANK RYLES, 38, electronics clerk, 8 The Slade Greens, Eyres Monsell Estate, Leicester. Motoring, archaeology; dance and most classical music, not pops. Grundig TK14, 5¼in. 3¼. **U.S.A. (especially Seattle, Oregon, Australia, Canada, English speaking.**

J. W. HARRIS, 31, clerk, 81 Abbey Park Road, Leicester. Railway history, dancing, swimming, languages; general music, trad jazz, shows. Grundig TK14, 5¼in. 3¼. **U.S.A. and anywhere in British Commonwealth.** All tapes answered.

DAVID CLIFFORD, 21, printer, 17 Highfields Road, Hinckley. Photography, reading; pop, not jazz. Alba 4-track, 5¼in. 3¼. **Preferably Australia, Canada, Africa, English speaking.**

### **LONDON**

W. AINSWORTH, 93 Hereford Road, W.2. Devotional interest, psychic, occult; not jazz or pop. Robuk RK3, 7in. 1½, 3¼, 7½. **Anywhere English speaking.**

RHYS W. EVANS, 18, clerk in advertising, 76 Caversham Avenue, Palmers Green, N.13. C. of E.; motor cycles, stamps; pop, some classical, some jazz. Elizabethan, up to 5¼in. 3¼. **Preferably Denmark, any others English speaking, especially females.** Please write first.

G. B. GELLER, 32, railway worker, 63 Lancaster Road, Leytonstone, E.11. Dancing, reading, films; all sorts, light classical. Philips, 7in. 3¼. **U.K. or anywhere.** Only 4-track at 3¼ please.

DAVID McCONNELL, 27, clerk, 8 Nightingale Place, Woolwich, S.E.18. Climbing, chess, photography; all types music. Elizabethan, 7in. 3¼, 7½, 15. **Anywhere English speaking.**

ARTHUR LESLIE TREVITT, 25, telephone engineer, 13 Coleshill Buildings, Ebury Strett, S.W.1. Hi-Fi, cine, pops, parachuting; light music, no opera. H.M.V. DSR.1, 7in. 3¼, 7½. **U.S.A. and U.K.** Would like to hear from U.S. paratrooper and our lads anywhere abroad. Will answer all tapes.

### **NORFOLK**

GARY MOSLEY, 22, cook, c/o Sergeants' Mess, R.A.F. Marham, King's Lynn. Photography, gramophone records; light classical, jazz, pops. Brenell Mk.5, 8¼in. 1½, 3¼, 7½, 15. **Anywhere in U.K.**

### **NORTHAMPTONSHIRE**

KEITH G. BELLAMY, 25, 20 Kingsway, Wellingborough. Records, rabbits, general; pops, trad jazz, orchestral, unusual music. Grundig TK20 and Gainsborough Mk.1, up to 7in. 1½, 3¼, 7½. **All over the world except G.B.** Just send tapes; will reply promptly.

### **STAFFORDSHIRE**

TONY WALKER, 28, youth club leader, 109 Chell Green Avenue, Chell, Stoke-on-Trent. Philately, youth club work, still and cine photography; jazz, pop, light. Grundig TK20, 5¼in. 1½, 3¼. **Anywhere.**

### **SUSSEX**

ROY BANNISTER, 40, blind piano tuner, pianist, 43 North Farm Road, Lancing. Any sport; modern jazz. Vortexion 2-track, 8¼in. 3¼, 7½. **Any part of English speaking world.**

### **SOUTH WALES**

BRIAN D. RICHARDS, 22, wages clerk, dance band singer, 13 Pandly Park, Aberkenfig, Nr. Bridgend, Glam. General interests; all types music. Stella ST56, 5¼in. 3¼. **Anywhere English speaking.**

TERRY POWELL, 15, schoolboy, 23 Hiles Road, Ely, Cardiff, Glam. Playing guitar, snooker pool, reading; pop music. Robuk RK3, up to 7in. 1½, 3¼, 7½. **U.S.A. or any English speaking part of world except British Isles.** Can understand slow, simple French.

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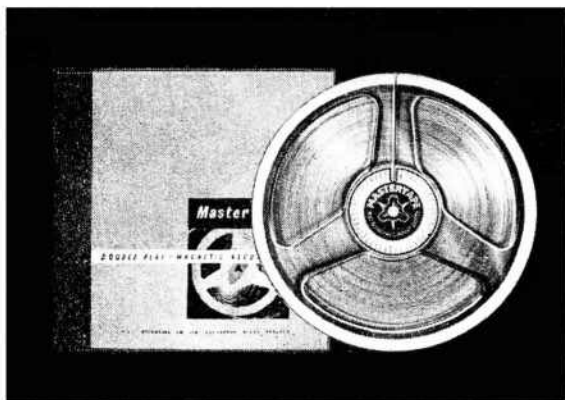
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