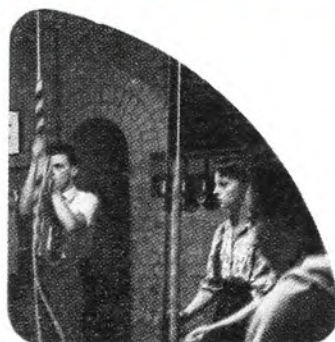


PREVIEW  
OF AUDIO  
FAIR

pages  
17-21

# TAPE

RECORDING  
FORTNIGHTLY



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5th April, 1961



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## K 50

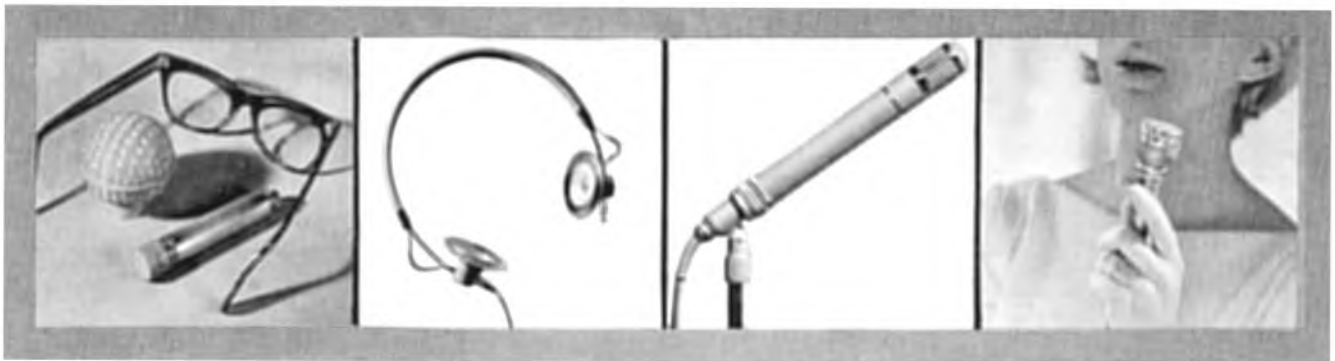
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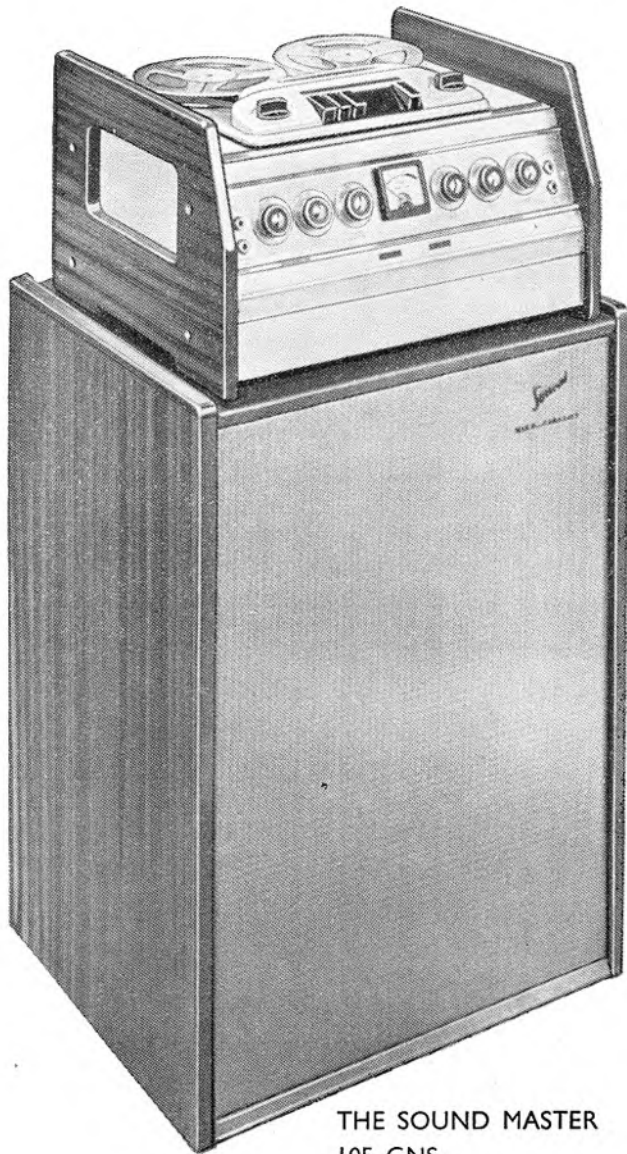
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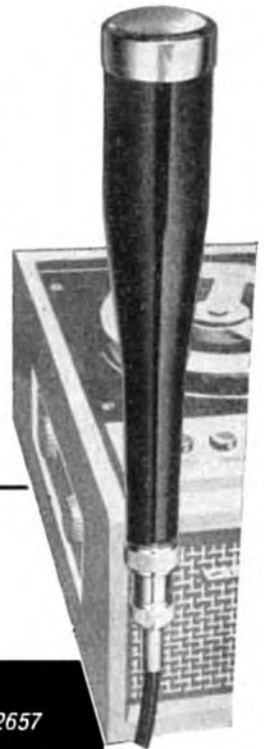
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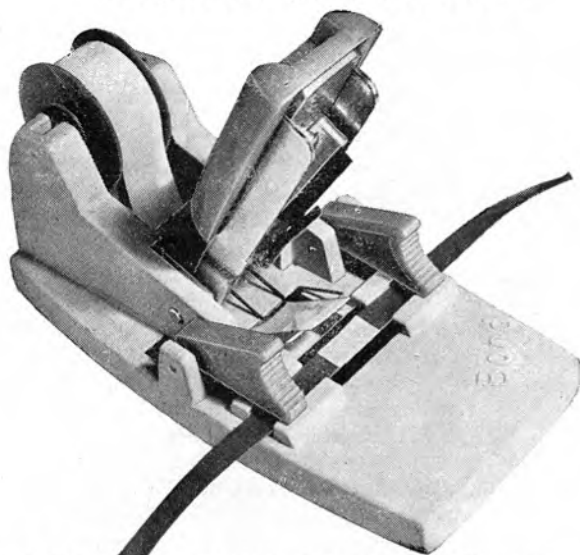
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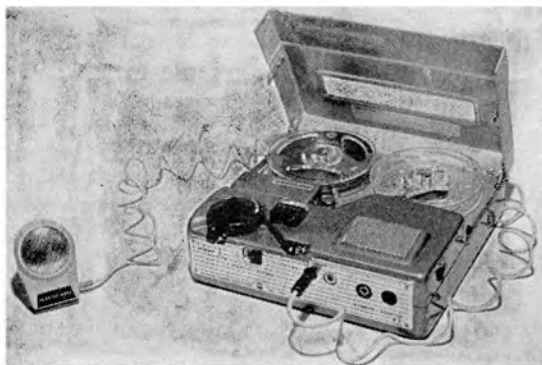


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# TAPE

RECORDING  
FORTNIGHTLY

Vol. 5

No. 7

5th April, 1961

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"Tape Recording" is published fortnightly, on alternate Wednesdays, by Print and Press Services Ltd., from 7, Tudor Street, London, E.C.4.

The Editor is always glad to receive articles, news items, illustrations, etc., intended for publication. When not accepted, material will be returned if a stamped addressed envelope is enclosed, but the Editor cannot accept responsibility for the safety of such material.

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# We take the view . . .

A DIGEST OF NEWS, COMMENT AND EDITORIAL OPINION

**T**HE International Recording Contest (CIMES) this year reaches its tenth anniversary—and we are going to celebrate it in Berlin. News has just reached me from the directorate of the International Federation of Sound Hunters (FICS) that we shall be meeting next October at Sender Freies Berlin, the studios of the official radio of the German Federal Republic.

I'm hoping that representatives of tape recording in Britain will be travelling with me again—last year the winner of the British Amateur Recording Contest and representatives of two of our leading manufacturers came along.

As British entries won the overall prize, the first prize in the music section and the first prize in the schools section in last year's CIMES, we have a high reputation to maintain.

The closing date for the British Contest is June 30 and, as usual, the winning entries will become the British tapes entered in the International event. There are still three full months in which to plan and prepare a tape.

And don't forget experience in past

contests has proved that the prizes do not always go to the old hands. In every contest so far, some of the best tapes have been submitted by enthusiasts who had only bought their recorders within the previous twelve months.

If you want an entry form or copy of the rules for the British and International Contests, apply immediately to 7, Tudor Street, London, E.C.4.

## Recorder sales

**T**HE Radio and TV Retailers' Association has recently begun to collect statistics of tape recorder sales. The information should be of great value to the trade and it will be fascinating to individual enthusiasts and to clubs. It is quite astonishing how few statistics have been established in this field to date.

During December the average number of recorders sold per shop was 4.8 and in January the figure fell to 2.1. These figures show that, during the Christmas shopping period,

people were buying one recorder for every two TV sets.

More tape recorders are being sold at present than radiograms—an interesting change in trend.

But a higher proportion of recorders are sold on hire purchase than with radios, and radiograms or television sets. In December just over half the recorders sold (56.2 per cent) were on H.P., and in January the figures fell to 47 per cent.

One thing follows clearly. It behoves manufacturers and dealers to do everything in their power to stimulate and maintain interest in creative tape recording—by supporting the clubs, the Contest and in all other possible ways—so that machines are not quickly discarded when the novelty wears off.

Because, unless efforts are made, that can easily be before the last instalment has been paid!

## "Which?"

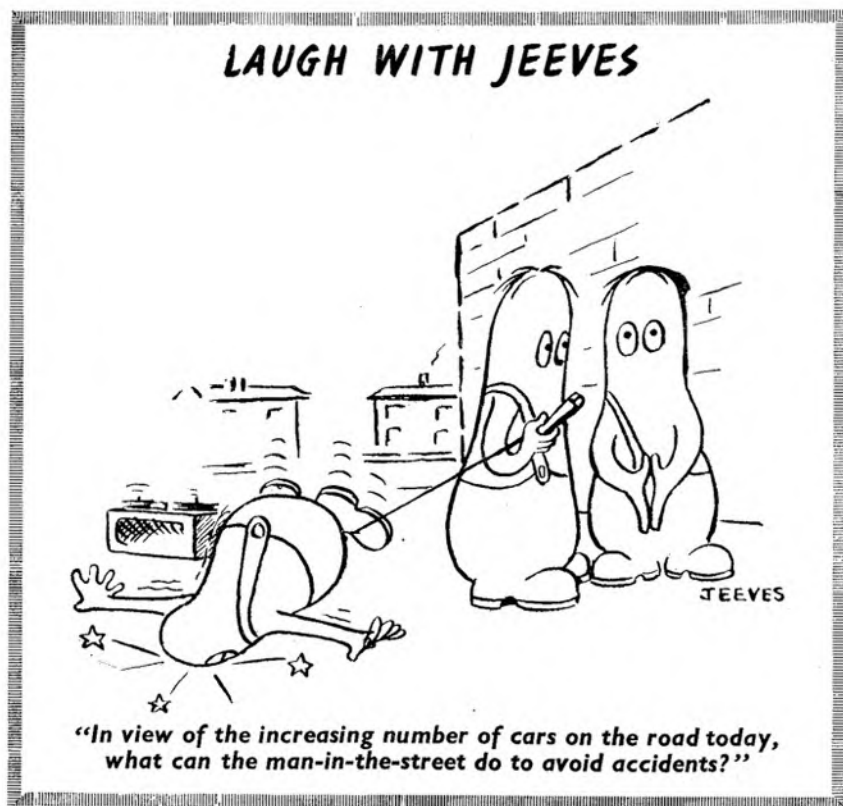
**A** LETTER from the Director of the Consumers' Association, arising out of the public discussion of the recent *Which?* report on tape recorders appears in this issue.

I do not feel myself that it meets all the points that have been raised in this column and elsewhere, but it is clear that the Consumers' Association is anxious to take full account of the criticisms that have been levelled.

It is now supplementing its original tests by further tests, using new samples of the models originally examined. The results are promised in a future issue of *Which?*

C.A. is going to seek to establish to what extent recorders are used with and without microphones. One of the new tests will then cover the ability of recorders to record music from radio or record-player without microphones. The other will make a comparison of performance at 7½ ips, where relevant—the earlier tests were all conducted at 3½ ips.

C.A. has also supplied to all the manufacturers directly concerned a detailed account of the way in which the earlier tests were conducted and the system of assessment.



## A FI-CORD ON SAFARI

**EXPLORER** Armand Denis uses a Fi-Cord 1A tape recorder to record comments as he and his wife, Michaela, look out over an African veldt during a safari.

The Denises, well-known to television audiences for the travel, adventure and animal films made in some of the most inaccessible parts of the world, have been exploring and making films since 1929.

Recording, of course, plays a large part in the making of these films, and for this purpose they have no less than six of these transistorised recorders as part of the standard equipment for their expeditions.



## Tandberg assist club

**AN** example of the co-operation extended by some manufacturers to clubs and organisations is provided by Elstone Electronics, importers of the Tandberg Series Six tape deck.

*Tape Recording Fortnightly* reviewer, Mr. E. A. Rule, who reviewed the machine for our February 22 issue, asked if it was possible to retain the machine for a club demonstration. Straight-away he received permission to go ahead and at the end of last month he arranged to present the recorder at a meeting of the members of the Ilford section of the Radio Society of Great Britain.

Two Armstrong A10 amplifiers with their control units, plus two Wharfedale W3 speakers were used for the demonstration, the whole of which was pre-recorded on the Tandberg using BASF double-play tape.

Mr. Rule also gave an hour-long demonstration comparing AM and FM radio, and showed examples of home-built and factory-built amplifiers. The home-built units were based on the Mullard 3-3 and 5-10.

## THE WORLD OF TAPE • A NEWS ROUND-UP

### “Having a wonderful time”—on tape

**A** DAILY tape recorded report of a 1,500-mile tour of Denmark is the idea behind a suggestion made by the bandleader of the Luton Temple Salvation Army Band.

At Easter the band began a fourteen-day tour of concerts and services representing some 25,000 British Salvation Army Bandsmen. So that the movement's own newspaper, *The Musician*, can have an up-to-date report on their travels, the bandleader, 35-year-old

industrial executive Zander Greig, intends to send news home daily by air. The recordings will be made on the tiny Fi-Cord 101.

A second recorder, a Grundig TK1, supplied by Luton dealers S. Farmers, Ltd., will be used for daily domestic reports by members of the band. The dealers are also making available an additional machine so that friends and relatives may call in to hear the views and comments by the bandsmen during their tour.

## E.M.I. EXPORTS

**FIRST** two models of a new-type ten-way mono-stereo mixing control console are included in two suites, for making mono and stereo gramophone records, recently despatched by E.M.I. Electronics Ltd., to the Rumanian Record Industry.

The consoles will record stereo by the conventional spaced microphone technique or—with the addition of special transformers—by E.M.I.'s “sum and difference” system. Results are more faithful to the original when the sum and difference system is used. This is particularly valuable when recording orchestras or choirs, which cannot easily be adequately covered by the spaced microphone technique.

Included in the order were ten TR90 stereo magnetic tape recording consoles, two dubbing mixing consoles, two disc replay units, eight large studio monitor loudspeakers and associated equipment.

## IN BRIEF

**MORE** than a thousand records and 1,650 tapes (approx. 1,200 hours of tape recording) of songs, tales, traditions, instrumental music, customs and place names are stored and kept at an even temperature in a room in the Scottish School of Scottish Studies of Edinburgh University.

Their library is possibly unique in keeping records of surviving tradition preserved against a time when ancient “folklore” may have disappeared entirely from everyday life.

Much of the material is from the Gaelic-speaking area, simply because material is more abundant in that direction, but there are 380 reels of Lowland Scots material and 80 from Shetland.

The school's own laboratory is transferring the more important matter from tape to disc and a sealed copy is being given to the National Library of Scotland.

## CLUB MEMBERS RECORD GHOST IN CASTLE

**A** SCENIC studio in Castle Buildings, Bury, was the scene of an unusual experiment by members of the Bury tape recorder and audio unit. The building is reputed to be haunted by the “man in grey” who is last reported to have been seen some four years ago.

Five members of the unit spent a night in the studio. Although nothing was seen or heard by them, two tape recorders in a top-storey room recorded strange sounds! Mr. Lee Prescott, member of the club, stated that there are regular rapping sounds at intervals of about a minute and a scraping sound like a bag of cement being dragged across a floor. There is also a sound like someone breathing.

A sound engineer has been asked to identify the noises.

Sam Wheatley's

## NOTEBOOK



**T**HIS month, Sam Wheatley—the man who introduced battery portable recorders to the BBC and trained the pioneer users, offers some elementary advice to beginners at outdoor recording.

**H**OW many tapes should you take when you go after outdoor recordings? This is a very important decision. The answer must be determined by the duration of the recording aimed at:

the type of recording (obviously a straight interview can be quite closely estimated in time, but the gurgling of a baby may only be captured after a lengthy wait, as indeed most natural history sounds); the exclusiveness of the material (many sounds are repeated frequently and can be obtained at any time—traffic, trains or aircraft, while others are so rare that they justify two or three repeats whenever they are possible); and, finally, the speed of the recording, which may be linked with the size of the reel of tape you use and whether you are committed to single or double-track work.

\* \* \*

Aim to have three clean tapes with you always. If away on remote location, take as many as you can conveniently carry, or as your purse allows. You could arrange for your dealer to send some on to a pre-arranged address.

Many a good Holiday Hour programme has been made with the contribution recorded on six tapes, five-inch reels—say 1½ hours at 7½ ips.

\* \* \*

**HOW MANY** spare batteries should you take?

Let's assume you have a new set in your recorder to start with. How do you assess the lasting value of these?

You should know the maker's figure for battery consumption. You ought to get this checked by your service agent, as it can vary from the nominal, due to incorrect speed, caused by inaccurate tension, overtight bearings or misalignment, or by dirt or a broken piece of tape caught up in the works.

All these may conspire to increase the drain on the battery; the drain can go up 50 per cent quite easily. My golden rule was to use the battery on the E.M.I. L2 for one hour of intermittent use and then to change to a spare.

Use your battery test device frequently and always carry a spare set of cells or complete battery.

If you give frequent tests to the battery you will find it recovers somewhat.

High tension batteries are fitted when valve amplifiers are used, but they are not such an anxiety. The current drain is much smaller; the valves will usually work even when the voltage has fallen by 50 per cent.

Transistorised recorders make the main demand on the battery to drive the motor; the current required to make the transistors work is small. One snag can occur; I have known cases where the transistor bias oscillator packed up even though the motor was still maintaining the correct speed. The motor was fitted with a governor device, so that as the battery volts fell the speed was maintained although the voltage became too low to start off the bias oscillator. Result: no recording on tape, except for odd grunts on the strongest modulation. Reason: a slight error in design. Remedy: arrange to switch on the oscillator (and amplifier if convenient) before the current is switched on for the motor.

If you are to get good outdoor recordings, so much depends on microphone interviewing.

\* \* \*

**NATURAL AND SPONTANEOUS** reaction is the hallmark of a good question, well put. You should always know what you want and frame your questions accordingly. Don't be afraid to have the headings written down on a card (but not flapping paper). This prevents you omitting the very question you particularly wanted.

Never talk down to anyone, no matter what age; make them feel confident and co-operative.

Let us take some examples. You may be interviewing the Town Clerk about the ins and outs of a local

problem. Do not expect him to commit himself unwisely.

It is no good beginning "Mr. Town Clerk do you think it's unfair to turn these people out of their homes to make way for street widening?"

Whatever his private views might be, he could not be happy in an answer to this approach.

Try instead, "Mr. Town Clerk under what Act or Regulation can these people be turned out?" Now he is on his own ground and can enlarge on the powers and responsibility of the local authority, the needs of the Ministry of Transport to widen the street, and so on.

Or imagine you have come to the end of a winter sunshine cruise—recording an epic, of course. You have one more tape left as you come into the landing stage.

Required: Last-minute scenes and bustle, recollections and promises of your ship-board friends.

What stands out in your memory?

Never interview your friends with the formula: "Do you remember?" Of course he does, or he couldn't tell you.

This is a parting to be recalled years after . . . make it gay.

*Tony:* Please send me one of your Gibraltar snaps.

*Jenny:* Give me your address. I'd like you to help me with the editing and the colour film later on.

*You:* Steward! Thank you for all your help on the trip, I'm very grateful.

*The wag of the party* (asked for his impressions of the cruise): Winter sunshine, my foot. There we were pounding along in a howling gale for the first three days, old boy, no food at all. Fourteen hours on the crest of one wave. G'bye.

Keep it in. . . . It will raise a smile when heard in the dull days of summer.

### B.B.C. "Sound" Programme

A magazine for radio and recording enthusiasts

Introduced by Douglas Brown

6:40 p.m. April 10

(A repeat of the programme broadcast on April 2)

An **EASTER EGG** in sound with advice from Stanley Unwin, the master of sound and television double-talk, explaining electronic omelette making

"Sound" is broadcast on alternate Sundays at 2.40 p.m. on Network Three

The next new programme is on April 16

# TAPE IN THE SCHOOLS

GEOFFREY HODSON

edits the latest news  
— and comments

## Recording courses are in fashion

**T**APE recording courses are in the news this month. Two start next week; others follow later. How are they organised? How long do they last? What do they teach? What are the problems? The organisers, as you will see, have different solutions.

As with any subject, we would all prefer short, full-time courses rather than weekly meetings. So much more can be accomplished in a concentrated course, but the difficulties about them is finding the time. Term-time release is hard to obtain (impossible did someone say?), and holiday time is not always popular because of family commitments.

The only full-time courses I know are those John Weston has organised on the E.D.A. Summer School in Carmarthen during the past two years (dates this year—August 5-19 at Trinity College), and the National Tape Recording Courses at the Rose Bruford Training College (the fourth starts on April 10).

Mr. Weston's course is residential and lasts, I believe, for two weeks. The second last six days; it is not residential but the members can be accommodated in nearby students' lodgings.

**B**ECAUSE they are full-time, these courses can give plenty of practice in both the manipulation of tape equipment and the application in a variety of projects.

The National Courses cover the basic techniques of recording during the first three days: operating the machines, splicing and editing tape, mixing sound sources, portable battery machine technique, and a number of background lectures. Then two days of programme exercises: tape drama production and magazine programme production including outside interviews.

On the final day a selection of the tapes made during the course are played back for critical appraisal. Each aspect is covered by a specialist tutor.

On John Weston's course, as much as possible of the whole field of tape recording is covered with special emphasis on individual requirements. Work on teaching techniques in subjects selected by the students develops microphone skill, script writing ability, and remedial teaching methods. Feature programmes develop spontaneously, for example, St. Joan in Prison, Wolfe before Quebec. Scenes from the Acts of the Apostles, The Tay Bridge Disaster. Also interviews and commentaries, recordings of live music, battery recorder work, adding sound to film, etc.

On both courses several rooms are available, and equipment is borrowed from leading manufacturers in addition to students bringing their own machines. They differ in that the National Course is open to non-teachers.

**M**R. NEWSOME, the Surrey Visual Aids adviser, has organised a number of short courses on operating tape recorders, but reports great difficulty in finding suitable tutors. For the first time

this term he has had a short experimental series on teaching methods with the tape recorder. Given suitable tutors, he would like to broaden his courses considerably because he has now established Telefunken and Cossor machines as a necessary teaching aid in his county.

**T**HE School of Education at Manchester University has organised a holiday Drama Workshop, April 10-15. John Bell of the Manchester Grammar School is taking the Drama on Tape sessions—five of 1½ hours each.

His outline syllabus shows that this will be fully occupied, for his lecture-demonstrations will discuss tape drama as a medium, outline the two approaches to production (that is, either continuous run-through, or bits and pieces to be edited later), casting, studio organisation, rehearsals, sound effects and editing. Some practical work is envisaged as part of the course.

### QUOTATION OF THE MONTH

"The tape recorder is a fine exsampler of a techer with a mecanical Brian."

—(Martin Smith, aged 11.)

**Y**ET another approach to tape courses will be illustrated in the autumn in a course sponsored by the Middlesex Education Committee. A course in Willesden organised by John Carr at the end of last year dealt with the subject in a general way—covering technical and educational aspects. The teachers attending demanded more of the same medicine; some were enthusiastic enough to buy their own machines without waiting for these to be supplied to their schools.

Now Middlesex has approved a longer course to treat the subject in greater detail; in fact, weekly sessions throughout the autumn term. There will also be concentration on only one aspect of tape in education: techniques in the teaching of English.

Technical matters have been chiefly omitted this time, for several reasons. In John Carr's words, "First, the non-specialist, harassed, class teacher tends to be put off by the idea that he will have to manage a complicated machine on top of having to manage his class. He will not do it. Secondly, the class teacher who can be attracted to the use of tape in a limited way at first will later find his own way to its wider uses."

Graham Jones will represent secondary school techniques, Glyn Harris, those of the Primary school, and Jack Singleton

those of the professional BBC specialist. This is a well-balanced team of lecturers who will provide a lot of practical work.

**F**INALLY, a comment from Kent. A. W. Bartram, who was the county Visual Aids Organiser just after the war and has since worked for UNESCO in West and North Africa, recently gave the first lecture at a short course in the Medway area. In his own courses, he likes to cover in fair detail the correct manipulation and understanding of a variety of machines and microphones. He also spends some time on tape itself—marking and identifying passages, filing and indexing, cutting and splicing.

All the technical items are taken at a simple level so as not to frighten the ladies. In addition, he refers to the many aspects on the utilisation side of tape.

For instance, as a science master himself he uses talks and drama techniques in his own lessons, as well as using the tape recorder in experimental work with an oscilloscope to examine frequency, amplitude, waveform; speed and pitch relationship—and as a timer to measure short intervals between two pulses.

We have also heard about single and weekend lectures in Oxford, Hove and Bristol, and the World Council for Christian Education includes a half-day discussion on the use of tape in their training courses.

**T**O summarise, there are obviously many approaches to tape courses, but where they can be given a fair amount of time the first requirements for students are for plenty of practical work in the four main aspects of the subject:—

Thorough mastery in operating machines, skill in handling tape, knowledge of microphones and their use.

Practice in the basic skills of microphone and production techniques: speaking in a variety of circumstances, acting, drama production, sound effects, script writing, magazine and feature programmes—and for the specialists, music and foreign language skills.

Opportunity to put these individual skills into practice in short dramatic and magazine programmes.

Critical appraisal of what has gone on tape by concentrated listening to the playback with an experienced leader, professional if possible.

It is rare to find one man (or woman) who is capable of covering all aspects thoroughly. As Mr. Newsome says, we need to find more tutors. A variety of opinion and experience is always healthy.

# HERE'S

MARK 5 DECK : 28 GNS

# where you get performance!

A tape recorder is only as good as its deck. This is where precision in manufacture and assembly are vital for professional standards of recording and reproduction. In the Brenell Mark 5 deck there's a rare combination of advanced technology and an almost-forgotten kind of craftsmanship.

The Mark 5 deck has a remarkable, new main motor of a type widely regarded as the most efficient to be used in tape recording. The **HYSTERESIS SYNCHRONOUS MOTOR**, with a balanced outer rotor and a heavy, statically and dynamically balanced flywheel. It brings "wow and flutter" down to below 1% at 7½ ips!

This and the other components providing the specification shown below, are assembled with fanatical care. Brenell Mark 5 production is an individual task which is repeatedly checked and tested. Nothing less than mechanical and electrical perfection will do.

At 28 gns, you'd be missing a great deal to pay less and there's no need to pay more.

**Abridged specification**

**3 INDEPENDENT MOTORS**

**4 RECORDING SPEEDS**

**FAST REWIND**

in either direction.  
1,200-ft. reel rewind in  
45 seconds

**WOW AND FLUTTER**

Below .05% at 15 ips  
Below .1% at 7½ ips  
Below .15% at 3¾ ips  
Below .25% at 1¾ ips

**FREQUENCY RANGE**

15 ips: 50/16,000 c/s ±3 dB  
7½ ips: 60/12,000 c/s ±3 dB  
3¾ ips: 60/7,000 c/s ±3 dB  
1¾ ips: 60/4,000 c/s ±3 dB

**SELECTIVE FREQUENCY CORRECTION**

at 15, 7½ and 3¾ ips

**ACCEPTS 8¼-in. REELS**

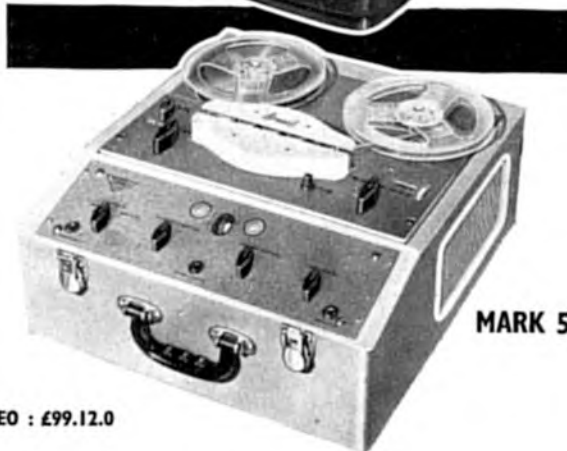
**PAUSE CONTROL**

**DIGITAL REV. COUNTER**

**PROVISION FOR  
EXTRA HEADS**



3 STAR



MARK 5

Tape Recorders  
3 STAR : 58 GNS MK. 5 : 64 GNS \* 3 STAR R/P STEREO : 89 GNS MK. 5 R/P STEREO : £99.12.0

\* ¼ track available with 3 Star models.



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# THE 1961 INTERNATIONAL AUDIO FESTIVAL

THE 1961 International Audio Festival and Fair will be open to the public from 11 a.m. to 9 p.m. from Friday, April 7 to Sunday, April 9, at the Hotel Russell, Russell Square, London, W.C.1. Admission is free, but only by ticket. Tickets are available from local dealers or direct from C. Rex-Hassen, the Festival Director, 42, Manchester Street, London, W.1.

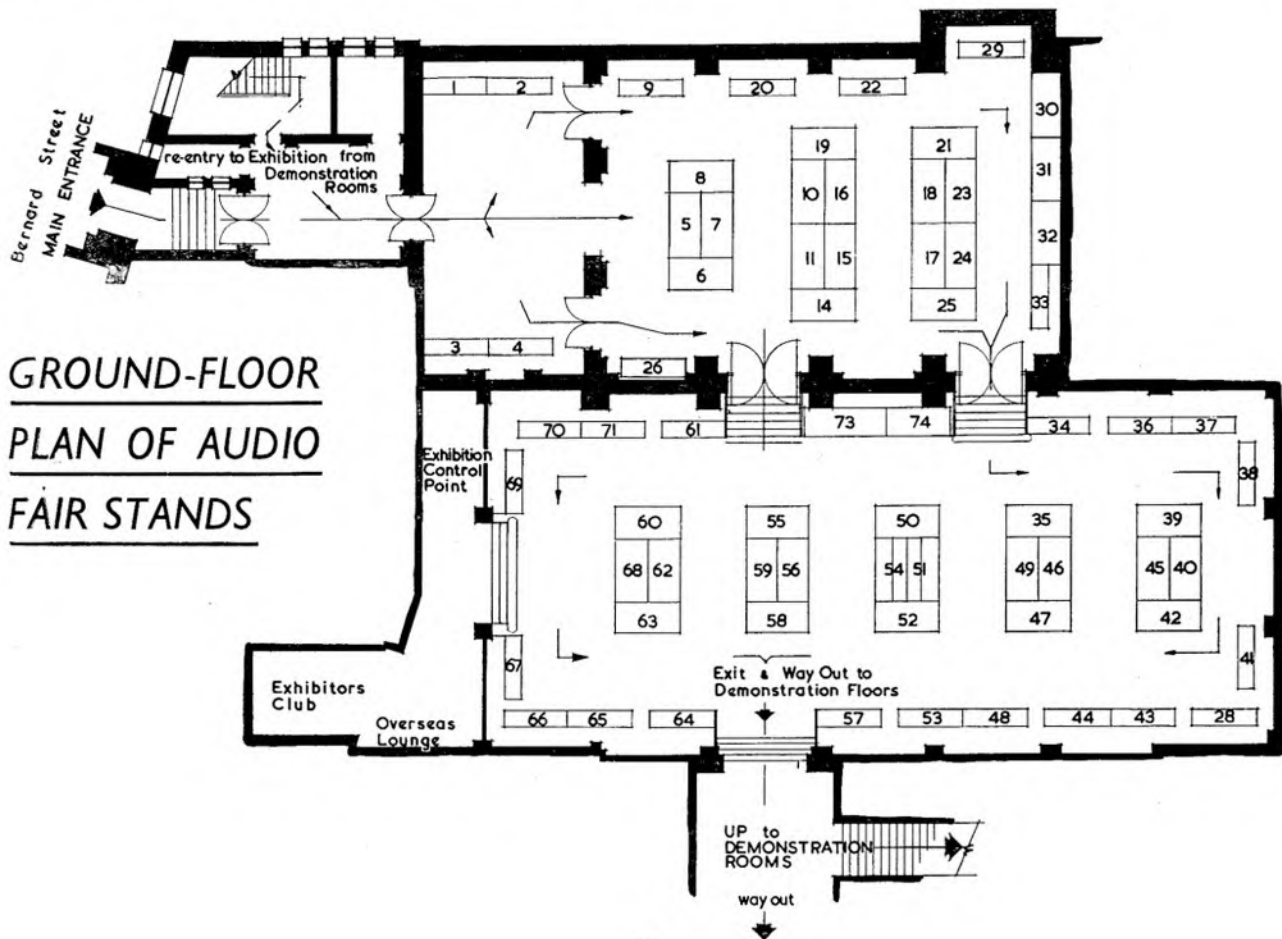
This will be the sixth Audio Fair to be held in London, and will be the biggest yet, with a number of firms exhibiting for the first time. An interesting

variety of entirely new equipment is to be shown.

"Tape Recording Fortnightly", therefore, has prepared this detailed survey for its readers—the fullest coverage of the Fair to be found in any journal.

Those who hope to attend will find it an invaluable guide, if studied carefully beforehand, of what they should look for, and where it is to be found.

Those who cannot get to the Fair will be fully in touch with all the latest developments if they study the succeeding pages of this issue.





## VIVIENNE GOODING at the Audio Fair

# A chance to win a free reel of tape

**T**HIS issue of *Tape Recording Fortnightly* contains the most detailed catalogue available of the exhibits and the clearest indicator of the interesting new products to look for at the 1961 International Audio Festival and Fair.

Take it with you when you visit the Fair. It will help you to find the things in which you are particularly interested.

And it may win you a free 7-inch spool of tape.

On Saturday, April 8 and Sunday, April 9 Vivienne Gooding, editor of our "Make way for the ladies" feature, will be visiting the Fair.

The first lady who recognises her on each day and who challenges her correctly will receive, on the spot, a 7-inch spool of recording tape.

The challenge must be in these words: "You are Vivienne Gooding of *Tape Recording Fortnightly*. Am I the first to claim your prize today?" The challenger must use these precise words and must have a copy of *Tape Recording Fortnightly* in her hand at the time.

And the challenger must be a lady.

So, if you are a male enthusiast, take your wife or girl friend with you.

There will be no prize if you are not the first correct challenger of the day; nor if you muff your lines; nor if you haven't a copy of the magazine.

The Fair will be open from 11 a.m. to 9 p.m. Vivienne Gooding

will not be there the whole time—her visits may be early in the day, maybe late in the evening. So, whatever time you are there, keep your eyes open!

And Vivienne adds this footnote:

"All friends and relations, bless 'em, please note that this contest is only for COMPLETE STRANGERS." For their benefit, a not-too-helpful photograph herewith.

Hi-Fi  
**HARRY**  
by rich

at the Audio Fair



"I've lost my tape recorder—have you seen one anywhere?"

# STAND-BY-STAND SURVEY

Stands  
1 to 4

## Just out: new speaker amplifier, stereo control unit and microphone

### ROGERS (Stand 1, Demonstration Room 347.)

*Rogers Developments (Electronics) Ltd., 4-14, Barmeston Road, Catford, London, S.E.6.*

Two new items will appear in the well-known Rogers range this year—the HG88 Mark II integrated stereo amplifier and the RD Junior Mark III stereo control unit.

The amplifier, which costs £38 10s. (or £42 in a teak case) provides dual input sockets for tape, radio and disc and the tape inputs are suitable for replay either direct from the tape heads or *via* a built-in replay amplifier in a complete recorder.

There are ganged controls and an output of 12 watts per channel (peak 14 watts). This increased power output, with the arrangements for simplified speaker matching, provision for mono operation of compatible stereo pickups and improved construction and wiring tech-



The Rogers  
H.G.88 Mk. II  
Stereo Amplifier

niques results in a notable addition to the Rogers range.

The stereo control unit will sell at £22 10s. and will be similarly styled to the Master stereo control unit already produced. Further details are not yet available.

Other established Rogers products will, of course, be on show.



### B.A.S.F. (Stand 2, Demonstration Room 222.)

*BASF Chemicals Ltd., 5a, Gillespie Road, London, N.5.*

Last year, B.A.S.F. scored a success with their film *The Magic Tape*, a thirty-minute colour film on magnetic tape production. It attracted considerable interest and has since been shown all over the country to tape clubs and similar organisations.

This year the manufacturers are presenting a double feature.

In their demonstration room visitors will be able to see a combination of sound and pictures which has been devised to intrigue with some of the not widely known facts about tape recording and to show the outstanding possibilities of their tape.

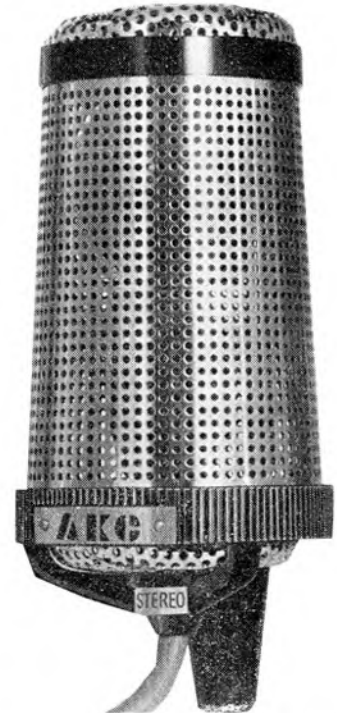
Meanwhile on the stand visitors will have the opportunity to meet tape recording experts, to discuss "Authentic Sound," and to hear how they can increase the fun and enjoyment of tape recording.



### WHARFEDALE (Stand 3, Demonstration Room 337.)

*Wharfedale Wireless Works Ltd., Idle, Bradford, Yorkshire.*

Main feature of Wharfedale's exhibit this year will be the new "Airedale" loudspeaker. This consists of the well-



The AKG  
D.88.  
microphone

### AKG (Stand 4, Demonstration Room 220.)

*Politechna Ltd., 3 Percy Street, London, W.1.*

The complete range of AKG microphones as marketed in this country by Politechna will be displayed. This range includes some twenty instruments varying from the £4 14s. 6d. Type D9 (dual impedance) to the low impedance only model, the Type D19BK, priced at £17.

Eight of these instruments are domestic types suitable for amateur users both in price and design. In addition, an extensive collection of microphones for professional use will be shown.

Other items on the Politechna stand will include the Dynamic Type K50 headphones which weigh only three ounces and can be used for mono or stereo; a microphone floor-stand, Type ST200, specially designed for anti-shock mounting; and another, the ST102, which has a special cross piece mounted to facilitate use for simple "boom" type work.

A last-minute announcement by AKG suggests a new microphone for tape recorder use. This will have an omnidirectional characteristic, and, built in a completely new housing, should attract considerable interest.

known omni-directional three-speaker system in a free-standing enclosure of reduced size. This has been accomplished by adopting roll surround suspension in place of foam in their W15 base unit, enabling the volume of the LF cabinet to be brought down to four cubic feet. They have also re-styled the corner cabinet to include the 8-in. middle and 3-in. treble units in a one-piece assembly.

The main panels of the "Airedale" cabinet are sand-filled to minimise panel resonance. Crossover frequencies are 400 cps and 5,000 cps. The "Airedale" provides accurate matching on stereo for the many brick- and sand-filled corner systems still in use. Price complete is £65. It weighs 91 lbs. complete, and measures 39 x 28½ x 14 in.

Other models being demonstrated will include the W3, SFB/3 and concrete column, now proving very popular with enthusiasts.

# A PORTABLE IN PARIS



**E**ARLY summer in Paris: the boats on the Seine; the gay couples in the Bois de Boulogne; the tourists savouring the excitements of the narrow, steep streets of Montmartre; the colour and bustle of the flower market; the music and song of the Left Bank. . . .

**This is the most exciting city in the world—at its most exciting season.**

**T**HERE are no rigid rules for this Contest. Anyone may enter, and there is no entrance fee. The purpose of the contest is to encourage the use of battery portables. So there are a few simple rules to ensure that recordings are made with this type of instrument.

We want you to assume you are already on holiday.

It is an old custom to send home picture postcards of the resort or country in which you are staying. Now imagine you are sending home a tape as a sound memento that will give your friends and relations a clear idea of your holiday centre. A few ideas are outlined at the bottom of this page; they will give you an idea of the sounds to look for.

Your imaginary holiday need not be abroad; you can devise a "sound" postcard to send to a friend abroad. The idea is to provide a clear picture in actuality sounds and narrative.

The holiday is of your choosing; just remember it **MUST** include at least two of the sounds listed below.

Technical ability and originality of composition will be taken into account in the judging.

Entries must commence at the beginning of the tape, and only one track must be used. Tapes should be prepared between white or coloured leader tapes. No tapes submitted may contain anything taken from radio transmissions or commercial recordings, or have been entered in any previous contest.

Recordings made at  $1\frac{1}{2}$ ,  $3\frac{3}{4}$  or  $7\frac{1}{2}$  ips may be entered, but to facilitate judging, only constant speed recordings will be accepted.

This contest is only for bona fide amateur recordists and the tape submitted must be

entirely the work of the entrant. Any additional help received during recording must be detailed in writing.

Every tape entered must be adequately packed and properly stamped, and addressed to "Paris Holiday Contest," Tape Recording Fortnightly, 7, Tudor Street, London, E.C.4. Tapes will be returned to competitors provided adequate return postage is sent with entries.

Each entry must be accompanied by the following details: **NAME** (block capitals), address, age, title of entry, duration of entry, recorder used, and recording speed.

\* \* \*

The following list of sounds is provided as a guide to the composition of your tape. Sounds of departure on holiday by land, sea or air.

Church bells or public clock striking indicative of locality (e.g. Big Ben, Notre Dame, or Nether Wapping Town Hall).

"Atmosphere" sounds (e.g. market cries, continental cafe music—zither).

Typical outdoor sounds of city, country or seaside life (e.g. traffic, farm animals, children playing).

**Those are the rules, the rest is up to you: and there is now just under eight weeks to prepare your tape.**

As a guide to the newcomer to field recording Bernard King provides, on the left, a few ideas which will help in the composition of your tape. On the facing page, Mr. K. Short, of Stuzzi recorders, gives advice on how to prepare for an out-of-doors recording session.

## A SOUND TRACK OF YOUR HOLIDAY WILL ENHANCE THE FAMILY ALBUM

**L**OOK out your photograph album and enjoy yourself for half-an-hour looking at snap-shots of gone-by holidays

As you look at the picture try to remember the "sound tracks" that went with them. You will then begin to realise just how much fun it would be to take a portable tape recorder on holiday with you. Nothing could make those holidays more alive again than a recording taken on the spot.

Perhaps, like me, you have photographs of a bull fight taken the year you went to Spain. Remember the "sound track" that went with them? The chattering of an excited crowd full of anticipation, silenced by the blast of trumpets. Then the cheers that greeted the parade. The reception of the first bull. Agonising gasps from a crowd thrilled by the daring of the matador. Finally, the acclaim for the clean kill—the sound of thousands in wild, almost savage, rejoicing. Isn't this a "sound track" you would love to own? I would, and if I ever visit Spain again, I will—I shall take my Magnette.

So you're not going to Spain for your holiday?

Keep turning the pages of the album. Look at the snap of your brother precariously balanced on a punt pole—with no punt under him. The snap is a gem—you've only got to look at it to burst out laughing. But think of the "sound track"!

Keep turning. The Highland band you photographed the year you went to Edinburgh. Auntie on the big dipper at Margate. The year you nearly bought a combine harvester at an auction in Shrewsbury. Nearly every snap could have been the subject for a recording to treasure.

All right, you can put the album away now—we've made our point. The article on the opposite page will help you to get the best out of your portable recorder. Read it. Then indulge in some pre-holiday practice. Send us your results and this year your holiday may be on us.

Good luck!

# A PORTABLE IN PARIS

And YOU can be there this year—with your travel and hotel expenses paid.

A five-day holiday in Paris is the prize in a new contest to find the best “five-minute feature tape” recorded out of doors on a battery portable.

This contest is sponsored by Recording Devices Limited, the importers of the

Stuzzi tape recorders, who will make all the arrangements for the winner’s trip to Paris.

The judges will be Mr. K. Short, Managing Director of Recording Devices Ltd. and the Editor of “Tape Recording Fortnightly.”

Closing date for entries is May 31.

## Preparations for field recording

**B**EFORE the War, and until not so many years ago, Ludwig Koch was the pioneer of outdoor recording; he produced most delightful bird and wild-life recordings. If, in those years, I had suggested that you should make your own recordings out-of-doors, you would have sent for two doctors to certify me!

The gear that was then required was about as suitable for recording out-of-doors as your house might be for taking away on your holidays. Consequently, outdoor recordings generally required, and were performed by a team of engineers, using specially-equipped vans.

This technique is still employed, but these days first-class recordings can also be made by keen amateurs using equipment weighing just a few pounds all up, and costing but a tiny fraction of the sums involved for equipment like Ludwig Koch’s.

Quite a selection of battery recorders is available now. Which type you choose depends on your requirements and your pocket. Quite naturally you cannot expect to get the same facilities and performance for twenty-odd guineas as you do for sixty. For recording on your holidays, I consider the main requirements are: fairly long playing time, both per reel and per set of batteries, good quality, a sensible-size loud-speaker and, of course, reliability.

The batteries, moreover, should be of a type that you can obtain freely wherever you go—if you use rechargeables, of course, you become involved with mains voltages, plugs, AC or DC, and so on. A motor battery-state indicator is a “must” for me and avoids recordings spoiled by battery failure.

But the most important “feature” of a portable (or of any recorder) is first-class after-sales service by the makers.

Now let us take a look at how to prepare for an away-from-home recording session. First of all, batteries. If you are going to be away from home for some time—as when you are on holiday—it is a good plan to start with a new set. In any event, be quite certain you will have enough power for at least twice the length of time for which you think you will record.

Next, check your machine methodically. Do it a day or two before your recording session, to enable you to have any necessary adjustments made and to buy batteries. Work right through all the normal functions of the set and check them. Particularly check that battery contacts are sound, microphone cables and plugs in good condition, and that the motor runs evenly.

When you are satisfied that your gear is in good order, put it away out of reach. This avoids arguments later.

Now you are ready to calculate your tape requirements. Unless you are very pushed for space assume single track working, for then editing becomes so much easier. Then take twice as much tape as you think you will need.

We can now take it that you have a good-class recorder, have prepared it well, have chosen your subject, and are ready to start. If at all possible, the first thing is to make a test recording. This greatly helps in placing the microphone and finding the best recording level, and it provides a final equipment check.

This business of placing the microphone and finding the right recording level is much more involved than you may think. Say you are recording a band at a restaurant. They are playing quietly, normally. And then suddenly there comes a passage *fortissimo*, really with gusto. If you do nothing, your magic eye will probably show hopeless overloading and this passage will be completely distorted. If you quickly turn down the volume, you will get a pronounced and most unprofessional “step” in the sound level. If, in anticipation of such a thing, you kept the recording level very low all the time, then the quiet passages will be under-recorded and hissy.

The solution is to do some compression of the dynamic range; in simple terms, “be on the ball.” Your eyes should be on the move all the time, and your finger on the gain control.

Your eyes will travel from the performers to the magic eye, then a quick look at the reels going round, then a glance at the motor battery-state indicator, back to the performers, and so on.

Movements of the gain control must be steady and unhurried. A momentary distortion that fades into clean sound at once passes unnoticed. A sudden change in volume level does not. Now this still does



**Top:** Checking batteries before a recording session. It is also an important point to check the controls (centre), and to see that the reels are running true (bottom).

not sound too bad, and it is not, but it does require a bit of practice. So does microphone placing.

We will assume you only have one microphone; the position is most important. Quite often you will end up by holding it in one hand, while controlling the machine with the other, and the recorder may either stand on a firm surface or be slung round your neck. If you do hold the microphone, do not allow anything, even clothing, to scrape against it, or you will get horrible noises on the tape. If you are putting it down somewhere, you must choose a position where it will not get knocked, or even bounced around—as on springy floor boards, for instance.

If you follow the rules, use common sense, remain undismayed by initial failures and gain yourself some experience, you can make wonderful recordings. Mostly they will require editing before they are heard at their best; if you are willing to go to this additional bit of trouble, you can make a homogenous sound picture and really get the best from your portable tape recorder.

# Stands 5 to 15

**ILIFFE ELECTRICAL PUBLICATIONS (Stand 5.)**



**PHILIPS (Stand 6, Demonstration Room 317.)**

*Philips Electrical Ltd., Century House, Shaftesbury Avenue, London, W.C.2.*  
Philips will be showing their three current models, the "Family" EL3541 at 34 guineas, the EL3542 at 59 guineas, and the EL3536 at 92 guineas.

The first named has four-track recording facilities, giving up to eight hours recording on double-play tape, with a single speed of  $3\frac{1}{2}$  ips.

Supplied complete with 5-in. reel of long play tape, crystal microphone, and spare spool, it has a new tape deck lay-out with simplified operation. Its features include a magic eye recording level indicator, digital rev. counter, superimposing facility, headphone monitoring and mixing with two inputs.



The Philips EL3542

Its larger brother the EL3542, is a four-track three speed instrument, additional speeds being  $1\frac{7}{8}$  and  $7\frac{1}{2}$  ips, providing up to 16 hours playing time with a 7-in. reel of double-play tape at  $1\frac{1}{2}$  ips.

Controls are of the push button type, with levers for track selection and superimposing. With the addition of an external amplifier, this model may also be used for stereo.

The largest in the range, the EL3536, offers four-track mono recording, and with this, as well as with stereo, a built-in superimposing facility can be used.

Here again are three speeds, allowing up to eight hours stereo recording when a 7-in. reel of tape is used at  $1\frac{7}{8}$  ips. The right-hand channel loudspeaker is housed in the cabinet's detachable lid, with the stowage compartment provided for the speaker containing the lead.



**PAMPHONIC (Stand 7, Demonstration Room 247.)**

*Pamphonic Reproducers Ltd., 17, Stratton Street, London, W.1.*

This firm announces that it will introduce five completely new pieces of equip-

ment at the Fair—two stereo amplifiers, two new loudspeakers and a new FM radio tuner. Details of these products are being withheld until the Fair opens, and will be published later.

The newly developed 30 watt trans-portable amplifier type 661W, which has facilities for two microphones, radio and gram inputs, will be shown.

Other products to be demonstrated will be the stereo amplifier 3001, introduced last year, and the type 640 FM tuner.



**PHILHARMONIC RECORDS LTD. (Stand 8, Demonstration Room 217.)**



**WILMEX LTD. (Stand 9, Demonstration Room 212.)**

*70 St. Stephen's House, Westminster, London, S.W.1.*

The quality of Irish brand recording tape is going to be demonstrated by this firm in a striking way. A short passage of music, recorded quarter-track, will be reproduced stereophonically at  $1\frac{7}{8}$  ips. This sounds like a very searching test for any tape.

There will also be demonstrations using tape records issued by Bi-Tapes and Music on Tape.

The complete range of Irish brand tape, from the general-purpose acetate tape at 17s. per 600 ft. to the premium-grade professional tape at 26s. per 600 ft., will be displayed.



**MULLARD LTD. (Stand 10, Demonstration Room 111.)**



**VERITONE LTD. (Stand 11, Demonstration Room 159.)**



**TELEFUNKEN (Stand 14, Demonstration Room 322.)**

*Welmec Corporation Ltd., 147/148, Strand, London, W.C.2.*

Although there will be no absolutely new developments to be seen at the Telefunken stand, their booth will be worth a visit to see the current range of the German Magnetophon two-speed recorders.

The range extends to five recorders now. Least expensive is the 75K-15, a portable model shortly to be reviewed in this magazine. Tape speeds are  $3\frac{1}{2}$  and  $1\frac{7}{8}$  ips, and the quoted frequency response is 60-16,000 cps at the top speed. Standard half-track operation is incorporated, and the maximum spool size is  $5\frac{1}{2}$  inches. Two versions are available, the 75K-15 costs 47 guineas, and the

75-T-15, a table model with output stage only, costs 43 guineas.

At 57 guineas this company offers four-track recording at  $3\frac{1}{2}$  and  $1\frac{7}{8}$  ips with their 76K. Over 12 $\frac{1}{2}$  hours recording is available on a  $5\frac{1}{2}$ -in. spool of double-play tape. Facilities for superimposition are included and provision for effects to be monitored on one track while another track is being recorded is supplied by means of the Teleset 75-76. Earphones are available as an accessory, and multiple superimposition can be achieved using additional accessories. A table model is available for 53 guineas.

A frequency response of 40-16,000 cps at  $3\frac{1}{2}$  ips is quoted for a third recorder, the 77K. An additional speed of  $1\frac{7}{8}$  is provided, and maximum spool size is  $5\frac{1}{2}$  in. The price is 85 guineas.

In addition to the common speed of  $3\frac{1}{2}$  ips, the 85KL offers  $7\frac{1}{2}$  ips. This 79 guinea model provides a total output of six watts and has a frequency response of 30-20,000 cps  $\pm$  3dB at the top speed. Of particular interest is the claim for signal-to-noise ratio which is better than 50dB and is said to remain constant throughout its life, unaffected by ageing valves.

The final recorder to be exhibited on their stand will be the semi-professional M24. This is available in four versions ranging in price from 169 to 192 guineas.

Their accessories will include five microphones. The condenser C14, at three guineas; the remote control D9F, six guineas; and the dynamic directional D11B, at eight guineas being of prime importance for the average enthusiast. For those wishing to achieve high quality recording the D19B at £19 10s., and the stereo D77 at 15 guineas will deserve attention.



**GRUNDIG (Stand 15, Demonstration Room 147.)**

*Grundig (Great Britain) Ltd., 39/41, New Oxford Street, London, W.C.2.*

Five Grundig recorders will be on show, with a price range extending £100 between the least expensive and the dearest.

The lowest priced of their recorders, and the latest to be introduced to their range, is the TK1, a battery portable with a constant speed of  $3\frac{1}{2}$  ips. The price is 29 guineas. It weighs 8 lb., will accommodate 3-inch spools, and provides a maximum playing time of 32 minutes using double-play tape. The frequency response is given as 100-8,000  $\pm$  3dB.

Next in line is the most famous of the Grundig recorders, the TK20. This is the machine which topped the 100,000 selling mark just before Christmas. A single ( $3\frac{1}{2}$  ips) speed machine with a frequency response of 60-10,000 cps—4+5dB, it weighs 21 lb., and will take  $5\frac{1}{2}$ -inch spools. The price is 42 guineas. A four-track version of this model, the TK24, will also be shown. The frequency response of this model has been extended to 12,000 cps and the weight is increased by 2 lb. It costs 55 guineas.

The fourth Grundig machine is the TK35. This is a three-speed model,  $1\frac{7}{8}$ ,  $3\frac{1}{2}$  and  $7\frac{1}{2}$  ips, with a quoted frequency response of 50-18,000 cps  $\pm$  3dB. The price is 75 guineas, the weight is 34 lb.,

## Stands 16 to 21

# Few new models from the "giants"—British firm shows two new machines

and the maximum spool size is seven inches. This additional speed and larger spool size makes possible a maximum playing time of 8½ hours using double play tape.

The final, largest and most impressive of their range is the TK60, a stereophonic recorder selling at 128 guineas. A two-speed machine, 3½ and 7½ ips, with a frequency response given as 15-15,000 cps±3dB, the TK60 will provide just over two hours of stereo recording on a seven inch reel of double-play tape. The weight is 55 lb., and in common with all the Grundig range the price includes reel of tape, spare spool, and a recording lead. In the case of the TK1 two recording leads are provided.

Also to be exhibited on the Grundig stand will be the Channel Reproducer Type CR1, a small column type loud-speaker enclosure with self-contained built-in amplifier, specially designed for the Grundig recorders.

Members of the staff will be available to answer all queries of a general or technical nature.



### REFLECTOGRAPH (Stand 16, Demonstration Room 336.)

*Multimusic Ltd., Maylands Avenue, Hemel Hempstead, Herts.*

Two of the Reflectograph models, C and D, will be shown for the first time at the Fair. The first named is a quarter-track stereo recorder with pre-amp outputs from each channel—the price has yet to be announced; and the second is a half-track playback deck for copying or dubbing tapes. The price is 75 guineas. In common with all the Reflectograph models, the Multimusic tape deck is incorporated.

The original model A, a standard half-track recorder, and model B, quarter-track with facilities for playing stereo tapes, will also be shown.

The separate record and playback amplifiers in the Models A, B and C incorporate separate gain controls, an entirely new "slimline" edgewise reading, and a record level meter calibrated in colour. A special feature is the professional facility for instantly comparing any input signal with the signal recorded on the tape.

All machines offer two speeds—3½ ips and 7½ ips—and the frequency response at 7½ ips is quoted as 40-15,000 cps±2dB. At 3½ ips the response is 40-7,500 cps±2dB. The signal-to-noise ratio is approx. —50dB.

Pre-set controls are provided for zero adjustment of the meter, and to adjust the input level to equal the signal on the particular brand of tape used. Additional feature on all the decks is the record/playback switch which automatically illuminates red and green indicator lamps. A safety button guarding against accidental erasure is also fitted.

The Model B will record on all four tracks monophonically, or playback ¼-track or ½-track tapes through its own



The Grundig TK.60 Stereo Recorder

amplifier, or, by connecting the head sockets to an external amplifier will reproduce any ¼- or ½-track pre-recorded stereo tape.

Model C incorporates self-contained record amplifiers for each channel, and two playback pre-amps enabling it to be connected direct to any external stereo amplifier. It will also record mono on four tracks. Separate playback and record controls and separate record level meters are provided for each track.

Equalisation throughout is to the recommended CCIR standards, although Model D with an NATRB response can be supplied to special order.



### AMPEX (Stand 17/18, Demonstration Room 312/313.)

*Ampex (Great Britain) Ltd., Arkwright Road, Reading Berkshire.*

Ampex will be showing a representative range of their professional and domestic tape recorders. These will include the 960 and 970 domestic portables, seen for the first time in England at this event last year.

On show for the first time is the new "Universal" series 351, professional recorder. This machine now incorporates a mains transformer with ranges 90-130 volts and 200-240 volts. Switchable NARTB/CCIR equalisation is also provided.

A wide range of facilities is available on the 960 including two and four-track recording in mono or stereo, multiple superimposition, and echo-chamber effects. The frequency range is quoted as 30-20,000 cps at 7½ ips, and 30-15,000 cps at 3½ ips—an impressive claim. Wow and flutter are also rated highly, being respectively 0.2 per cent and 0.25 per cent.

### CHAPMAN (ULTRASONICS) LTD. (Stand 19, Demonstration Room 355.)



### COSMOCORD LTD. (Stand 20, Demonstration Room 211.)



### GRAMPIAN (Stand 21, Demonstration Room 152.)

*Gramplan Reproducers Ltd., The Hanworth Trading Estate, Feltham, Middlesex.*

A new and smaller microphone, the DP/5 on the Gramplan stand, together with a modified parabolic reflector, will be of particular interest to tape enthusiasts.

Other new pieces of equipment to be seen will include a new cabinet loud-speaker of the folded horn type, a stereo amplifier and a new "Tremulo-super" instrument with twin speakers.

The new speaker, Type HL12, is rather more compact than the usual reflex type, and tight acoustic coupling of the 12-inch diameter high flux unit results in a considerable increase in output.

The amplifier is of unit construction with high gain and ample sensitivity from very low output pick-ups. A switch for tape, pick-up and radio input is provided, plus mono/stereo and speaker phasing switches.

Multiple input and mixing facilities are provided in the tremulo unit which will appeal to the experienced guitarist.

Finally, for the P.A. man, there is a transistor amplifier. 12v D.C. operation, having an output of 15 watts (over 20 watts peak) with three separately controlled units.

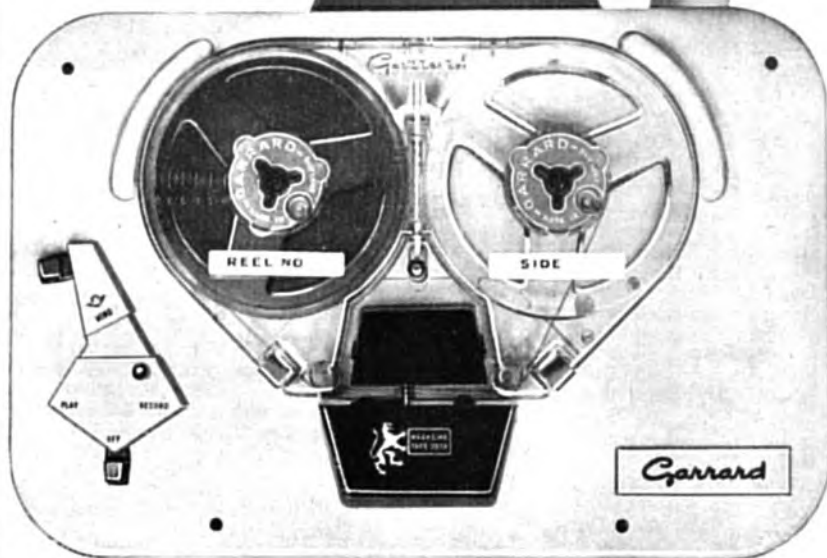
(Continued on page 25)

# Why Complicate Tape?



THE  
**GRAMOPHONE**  
ONE SHILLING AND SIXPENCE

John Gilbert says:—  
“The more time I spent in discussing the Garrard Magazine Tape Deck the more I am convinced that its conception and engineering make it an ideal basis for a family tape recorder”.



## MAGAZINE - RETAIL PRICE REDUCTIONS

ITEM	Old Price	NEW PRICE
LOADED MAGAZINE CONTAINING 650' DOUBLE PLAY TAPE	£1·17·6	£1·13·4
MAGAZINE ONLY WITH 1 EMPTY SPOOL	8·3	8·0
REEL OF 650' DOUBLE PLAY TAPE	£1·7·9	£1·4·0
EMPTY 4" SPOOL	3·6	3·3

the  
**Garrard** System is Simple!

THE GARRARD ENGINEERING AND  
MANUFACTURING COMPANY LIMITED  
NEWCASTLE ST., SWINDON, WILTS. Tel: Swindon 5381. Telex 44·271



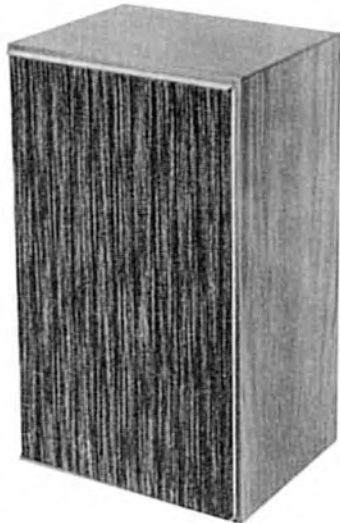
## Stands 22 to 26

### LEAK (Stand 22, Demonstration Room 304.)

H. J. Leak and Co. Ltd., Brunel Road, Westway Factory Estate, London, W.3.

A new "very-low-distortion" moving coil loudspeaker system will be introduced by this firm at the Fair. Known as the Leak "Sandwich" full-range speaker, it will cost £39 18s.

The cabinet measures only 26 x 15 x 12 in. and is claimed to avoid the "boxy coloration" of conventional cabinets. A 3 in. and a 13 in. speaker of novel design and a half-section cross-over network complete the system.



The new Leak "Sandwich" speaker

The makers state that the stiffness-to-weight ratio of the cone in the 13 in. unit is 200 times better than the best cones available hitherto. Boldly they add: "This invention is the greatest advance in moving-coil loudspeaker design since Rice-Kellogg invented the moving-coil loudspeaker in 1925."

The full range of Leak products, including mono and stereo amplifiers from 12 to 50 watts output, will be shown. The latest addition is the Varislope Stereo pre-amplifier at £25, described as the most comprehensive unit available in the facilities it offers.



### GEVASONOR (Stand 23, Demonstration Room 255.)

Geveart Ltd., Great West Road, Brentford, Middlesex.

Geveart are taking part in the Fair for the first time this year, and will be exhibiting the Gevasonor range of magnetic tapes.

Recent additions to their range include

## "Greatest advance in moving-coil speaker design"—recorder with free-standing speaker

Type LRP—a long-play tape, and Type DP—a double-play tape, both based on tensilised polyester. These are being supplied in spool sizes 3, 4, 5, 5½ and 7 in.

Another recent addition to the Gevasonor range, of interest to professional recording studios and gramophone record manufacturers, is Type F tape. This is a standard play tape with a rough backing, the purpose of which is to ensure good winding when the tape is used in open rolls as on the BTR2 and TR90 decks.

Type F is being supplied only in 1,000 metre (3290 ft.) rolls, on "European" cores.

In their demonstration room (but not on the Sunday), Mr. Leslie A. Guest will present a programme under the title *High Fidelity in Sound and Colour*. This will consist of music accompanied by colour slides on Gevacolor film. In recent years Mr. Guest has become a familiar figure in photographic and audio circles through his lectures. His demonstration at the Russell Hotel will be a new one specially prepared for the occasion.



### TANNOY PRODUCTS LTD. (Stand 24, Demonstration Room 145.)



### SOUND (Stand 25, Demonstration Room 115.)

Tape Recorders (Electronics) Ltd., 784-788, High Road, London, N.17.

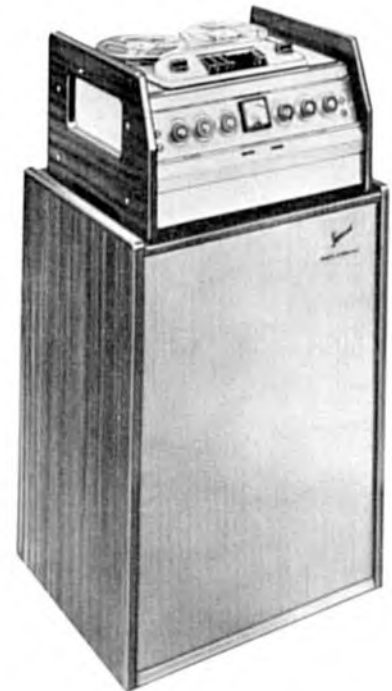
This firm announces an interesting addition to its range—the "Sound Master," a four-track, three-speed model with a free-standing bass-reflex speaker system employing a Goodmans Axiom 110 unit and a 4-in. moving coil tweeter. The price is 105 guineas.

Another distinctive feature of this recorder is the facility to play back one track while recording on another, so that the recorded and live signals can be combined to build up a composite effect. This is a very valuable facility for making cine sound tracks, self-accompanied musical items, learning languages, and so on.

It is achieved by using separate amplifiers for recording and replay. Monitoring and mixing of the two inputs is provided for. There is a "Sensimatic" level recording meter. Ten watts undistorted reproduction is claimed.

Frequency response is quoted, for the highest speed (7½ ips), at better than 40 to 16,000 cps, plus or minus 3 dB referred to 1,000 cps. Signal to noise ratio is given as better than -43dB and crosstalk between tracks at better than -60 dB.

The recorder is housed in a polished wood case, designed to stand on top of



The new "Sound Master" recorder, with free-standing speaker system

the reflex speaker cabinet and to fit into the bottom of the enclosure when not in use.

The Sound "Connoisseur" console recorders—two- and four-track versions—will be seen again, both three-speed models, and the single-speed four-track Sound "Prince de luxe." Other models in the range are the Studio and Studio de luxe, the Prince, the Belle and Belle de luxe.

The range of Sonorcolor tape and accessories distributed in this country by this firm will also be exhibited.



### SONY (Stand 26, Demonstration Room 320.)

Tellux Ltd., 44, Brunel Road, London, W.3.

Five Japanese magnetic tapes, a range of Japanese magnetic tapes and two microphones will be shown by this firm, and will doubtless rouse a good deal of interest as the first full range of Japanese audio products to be exhibited together in Britain.

Judged by the preliminary publicity material, the recorders are very well styled, apparently influenced to some extent by American fashion.

(Continued on page 27)

particular politicians



insist on  
TRADE MARK

**SCOTCH**  
BRAND

*recording tape*

WORLD'S LARGEST SALES OF MAGNETIC TAPE



## Stands 28 to 31

The cheapest model is the 111 light portable "for professional use," priced at 34 guineas.

Model 262, at 61 guineas, is a two-speed machine (7½ and 3½ ips), claiming a frequency response of 70 to 10,000 cps at the higher speed. It takes 7 in. reels, has a magic-eye level indicator, a built-in 4 x 6 in. speaker, and provides an output of 2 watts. Size is 15 x 7 x 11 in. and weight 22 lb.

Model 101, at 49 guineas, is a slightly smaller, lighter machine, quoting very much the same performance figures, but having a VU-meter level indicator.

Model 521, at 124 guineas, is a stereo machine providing for two- or four-track recording and playback. Weight is only 30 lb., but a wide range of facilities is provided, including mixing of the two inputs to each channel and "freewheeling" of tape for manual cueing during editing.

The two speeds are 7½ and 3½ ips; frequency response at the higher speed is quoted as 30 to 18,000 cps ±2 dB between 50 and 15,000 cps. Other figures quoted in the specification suggest a recorder with a very high-class performance.

The fifth machine in the range is a combined recorder and radio receiver, but details of price are not yet available.

The Sony tape will sell at 16s. per 600 feet.



ALLIED RECORDS LTD. (Stand 28.)



S.M.E. LTD. (Stand 29.)



E.M.I. Electronics. (Stand 30, Demonstration Room 113.)

*E.M.I. Electronics Ltd., Hayes, Middlesex.*

The new transistorised version of the most widely used portable battery tape recorder—the RE321—will be demonstrated by E.M.I. Electronics who are appearing for the first time.

The unique design of this recorder has led to its use throughout the world for spot news reporting by broadcasting organisations, and for data recording by government and industrial establishments. This 7½ ips machine employs full track recording and costs £102 18s.

Also being demonstrated will be the TR52 trolley-mounted twin channel mains recorder. This machine is intended for professional use, primarily for occasions when it is necessary to leave the studio. It has separate record and replay amplifiers allowing a new programme to be recorded and monitored while an earlier programme is being replayed. A monitoring speaker is incorporated.

Two versions of the TR90 professional recorder will be shown—a trolley-

# Japanese range arrives— combined tape recorder and disc record reproducer



The new H.M.V. model that is bound to attract attention at the Fair—the first British-made combined tape recorder and disc player



mounted model and a stereo console cabinet. This is the machine used in nearly all the broadcasting studios in the world, and by disc manufacturing concerns. Two RE350 loudspeakers will also be used in the demonstration room.



H.M.V. (Stand 31, Demonstration Room 121.)

*The Gramophone Company Ltd., Hayes, Middlesex.*

We already have radios, tape recorders and record reproducers as complete pieces of equipment, and it is not unusual to see radios and reproducers combined as radiograms. This year's Audio Fair will perhaps be remembered most by visitors by the first announcement of a combined tape recorder and record reproducer. For such is the machine which will be on view at the H.M.V. stand.

The new machine is the Voicemaster, a two-speed, four-track tape recorder that will also handle 7-, 10- and 12-inch disc records at 33½ or 45 rpm.

Complete in itself as a tape recorder, the Voicemaster is easily converted for this additional facility by adding the E.M.I. Disc Kit comprising a turntable,

crystal pick-up and pick-up rest. The motors and electronic section as used for the tape recording and reproduction section will be utilised for disc reproduction. It is simply a matter of fixing the Kit to points already made available on the deck.

We have not yet been able to take a good look at the Voicemaster, but the illustration on this page will provide an indication of the appearance of the machine. The turntable spindle slides into the well which can be seen midway between the tape spools; the pick-up and pick-up rest are placed on spindles held in position within the two apertures seen on either side of the recording level indicator just below the tape spools.

The technical details of the tape recording section are of most interest to readers, so in this report we will confine ourselves to this aspect.

The quoted frequency response is 60-15,000 cps ±3dB at the top speed, 7½ ips, and 60-10,000 cps ±3dB at 3½ ips. Wow and flutter is given as .15 per cent, and .3 per cent for 3½ ips. Signal-to-noise is rated as within 42dB.

A wide range of facilities are incorporated including safety erase lock, clock type tape counter, pause control, recording level meter (calibrated in decibels),

(Continued on page 28)

## Stands 32 to 37

and inter-track switching providing multiple superimposition. Separate amplifiers are incorporated, and full loudspeaker monitoring is possible. Mixing of four inputs is also possible, with separate controls for each input, two high and two low, plus a master switch for overall control.

The power output is rated at 4 watts, through the  $9\frac{1}{4} \times 4\frac{1}{2}$  elliptical loudspeaker and a  $2\frac{1}{2}$ -inch tweeter.

Valve line-up includes two EF86, two ECC83, two EL84, metal rectifier. Consumption is approx. 98 watts on record and 92 on replay. Mains supply 200-250v AC 50 cycles.

Maximum reel size is seven inches, providing a maximum playing time of just over two hours per track at  $3\frac{1}{4}$  ips using double-play tape. Rewind time for 1800 ft. tape is given as ninety seconds.

Of particular interest is the output socket for an extension loudspeaker when the machine is used for reproducing discs, this output may also be fed into the recorder input.

The overall measurements are  $24 \times 16\frac{1}{2} \times 9\frac{1}{2}$  inches, and the weight is in the region of 46 lbs. The price is not available as we go to press, but this will be announced at the Fair.



### E.M.I. (Stand 32, Demonstration Room 120.)

*E.M.I. Sales and Services Ltd., Hayes, Middlesex.*

A full range of Emitape professional and domestic recording tapes and accessories, including the Emitape Accessory Kit, will be exhibited.



### ZONATAPE (Stand 33, Demonstration Room 214.)

*Zonal Films (Magnetic Coatings) Ltd., The Tower, Hammersmith Broadway, London, W.6.*

This company, noted for the manufacture of 16 and 35 mm. coated film, came to the attention of the tape world last year, when they introduced perforated tape for use with the K.G.M. Cinecorder.

Their entry into this field is now confirmed by this, their first appearance at the Audio Fair, where they will be showing a wide range of tapes.

The tapes are available in three spool sizes, 3, 5 and 7 in., and they will retail at the following prices. Standard (acetate base) 5s. 3d., 18s., and 30s.; Long-play (pvc base) 5s. 9d., 21s., and 35s.; and double-play (polyester base), 9s., 28s., and 50s. The type of tape may be identified respectively by clear, red and green coloured plastic spools.



### BRENELL (Stand 34, Demonstration Room 254.)

*Brenell Engineering Co. Ltd., 1a Doughty Street, London, W.C.1.*

This old-established firm—one of the



### The Brenell 3-star stereo tape recorder



pioneers of tape recording—is showing for the first time a new Mark 5 Major recorder. It is a development of the well-known and popular Mark 5 machine, but provides for tape monitoring, mixing and super-imposition. It has separate record and playback amplifiers and a restyled deck.

The familiar Mark 5 as well as the 3-star Brenell models will again be shown, in mono and stereo versions.

The Mark 5 deck is, of course, an extremely popular one with audio enthusiasts who wish to build it into an existing hi-fi set-up. As it will accommodate four heads and operates at four speeds, it is ideal for the experimenter.

The Mark 5 amplifier is also sold separately for use with hi-fi external amplifiers and pre-amplifiers requiring a frequency compensated tape signal of 50 milli-volts and upwards.



### S.T.C. (Stand 35.)

*Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C.2.*

Two new microphones will be shown by S.T.C. this year, the first of which is the 4106, a moving-coil, studio grade mic with a cardioid polar response curve.

Similar in construction to the established 4105, the 4106 has an increased frequency range of 30-12,000 cps. Its performance is similar to that of the earlier 4033 mic, but with a smoother response curve over the front hemisphere. Its length is approximately  $4\frac{1}{2}$  in., and diameter  $1\frac{1}{2}$  in.

Their second new instrument, the 4108, is a condenser mic also intended for studio use. With a frequency range from 30-15,000 cps and a cardioid directional response, this mic has a built-in transistor and valve head amplifier, and a separate power unit. The dimensions of the mic are approximately  $5\frac{1}{2} \times \frac{3}{4}$  in., and the power unit measures  $8\frac{1}{2} \times 4\frac{1}{2} \times 6$  in.

Three amplifiers will also be shown; a microphone amp, a distribution amp, type DA-30-E, and an equalisation amp, type TC-0-B. Microphone input transformers and a hybrid transformer for combining and dividing audio signals will also be exhibited.

### FERROGRAPH (Stand 36, Demonstration Room 234.)

*British Ferrograph Recorder Co. Ltd., 88, Horseferry Road, London, S.W.1.*

Ferrograph will have their usual stand in the exhibition hall showing their three recorders, the 4A/N; 4A/H; and Stereo 808, plus accessories including Hublock reels, screened and unscreened jack plugs, screened cable connectors, and the Wearite De-Fluxer.

Upstairs they will be running continuous demonstrations of stereophonic sound, and arrangements have been made to provide a question-and-answer service.

We understand that no major changes are to be expected in the Ferrograph, and changes as will be evident will be matters of detail rather than of principle.



The Ferrograph Stereo 808

### MINIVOX (Stand 37, Demonstration Room 261.)

*Challen Instrument Co., 4 Stratford Place, London, W.1.*

The all-British battery portable, the Minivox C, will be demonstrated. This has been introduced since last year's Fair, so that for many visitors this will be the first opportunity to see and hear it used.

It is a transistorised recorder weighing only 10 lb., has a sturdy  $3/16$ ths in. duralumin deck and all-timber case. It operates at two speeds, offers mixing and superimposition, and has a built-in 5-in. speaker.

## Stands 38 to 46

### ROBUK (Stand 38, Demonstration Room 122.)

*Robuk Electrical Industries Ltd., 559/561, Holloway Road, London, N.19.*

Robuk will have on display the new Robuk RK3 three-speed tape recorder. Design features of this instrument, which marked the entry of this firm into the tape field, include "piano-key" operation, twin-tracks, separate gain controls for gram and microphone inputs, superimposition switch, separate on/off switch and tone and volume controls.

Produced in its entirety at a new factory at North London, the RK3 incorporates the Motek deck, manufactured by Modern Techniques Ltd., of which Robuk are an associate company. The machine sells at 36 guineas.



### LUSTRAPHONE (Stand 39, Demonstration Room 114.)

*Lustraphone Ltd., George's Works, Regent's Park Rd., London, N.W.1.*

This firm caters for many needs other than those of the amateur recording enthusiast, the Services and the police, for example. A very wide range of equipment will, therefore, be shown, but amateurs will concentrate on the Lustraphone microphones which have earned a high reputation.

Four new items will be shown for the first time at the Fair: a new-type differential armature microphone designed for use with transistorised equipment, a foam-sealed earpiece telephone headset fitted with noise-cancelling mic and transistor pre-amp, and transistor amps and pre-amps.



### AUDIO FIDELITY (Stand 40, Demonstration Room 256.)



### BRITISH RECORDING CLUB (Stand 41.)



### MAGNAVOX (Stand 42, Demonstration Room 361.)

*Magnavox Ltd., 129, Mount Street, London, W. 1.*

This company, a subsidiary of the American Magnavox Company, which took over the Collaro concern during the past year, is concentrating its Audio Fair display on disc reproducers and we understand that its tape recorder will not be shown.

Perhaps the Magnavox Company has a surprise for us.

Among the equipment to be seen will be five radiograms, each equipped with the "Imperial" automatic four-speed changer. Prices range from 74 to more than 200 guineas—from the SG400 Serenade with two 12 in. speakers and two 4 in. tweeters, up to the ST233L Imperial Classic. This instrument has a two-channel divided frequency stereo amplifier giving 60 watts peak output and balanced response at all volume levels throughout the entire audio frequency range.

# Additional facilities on a popular deck—new microphones—tape displays

### FI-CORD (Stand 43, Demonstration Room 348.)

*Fi-Cord (Distributors) Ltd., 40a, Dover Street, London, W.1.*

The established and popular Fi-Cord 1A will once again be the centre of attraction of the Fi-Cord stand.

Weighing only 4½ lb., this minute and powerful instrument has a frequency response claimed by the makers to extend from 50-12,000 cps at the top speed of 7½ ips. The BBC have found the 1A suitable for their staff to use for broadcasts, although such organisations only use the top speed. For the amateur enthusiast who has economy of tape to consider, the Fi-Cord has an additional speed of 1½ ips, which is suitable for general purpose interviewing and dictation.

A choice of microphones is available. With a small dynamic dictation microphone fitted with a start/stop switch, the machine costs 59 guineas; and with a

Grampian DP/4 dynamic microphone the price is 66 guineas.

Both prices include a battery recharger, an additional feature which does away with the problem of renewing batteries. By the simple expedient of leaving four of the eight batteries supplied in the charger overnight, the user can start any day's recording with a fully-charged set. The remaining batteries are meanwhile left in the charger for future use.



### CINE ACCESSORIES LTD. (Stand 44.)



### SCOTCH BRAND (Stand 45, Demonstration Room 352.)

*Minnesota Mining and Manufacturing Co. Ltd., 3M House, Wigmore Street, London, W.1.*

Scotch Brand will be showing their complete range, one of the most comprehensive available, consisting of three standard play tapes (111-acetate base, 311-PVC base, and 102-polyester base); 150-polyester extra play tape; and 200-tensilised polyester double-play tape.

Number 102, the new member of the range, is reported as already having proved itself as an ideal tape for professional recording.

As four-track recording necessitates closer head contact, the company are recommending their 200 tape, which is claimed to be ideal for head conformability. This tape will be available for examination along these lines.

Also on show will be the Scotch Brand accessories including empty spools, leader and splicing tapes, and their Accessory Kit. The "One-Five Special" 3-in. mailing spool introduced at last year's show, is again featured. This is supplied in an attractive red and green pack, and has 150 feet of tape providing 15 minutes twin-track recording at 3½ ips. The price is 5s. 3d.

In their demonstration room they will display the quality of their tapes on some of the finest semi-professional recording equipment available.



### RECORD HOUSING (Stand 46, Demonstration Room 248.)

*N.S.B. Field Ltd., Brook Road, London, N.22.*

This firm has played a leading part in making hi-fi equipment acceptable in the sitting room. It now shows a wide range of cabinets and speaker enclosures, and any individual need should be satisfied by one or other of these units.

The various cabinets are designed to  
(Continued on page 30)



The new Wyndor tape recorder  
(see page 31)

### STUDIO DEMONSTRATIONS

Demonstrations of domestic and monitoring loudspeakers and professional reproducing equipment will be given by Lockwood and Co. in conjunction with various manufacturers, during the period of the Audio Fair.

These will be at the I.B.C. Recording Studios, 35, Portland Place, London, W.1.

Admission is free and times of demonstrations will be: April 6 and 7, 6 to 9.30 p.m.; April 8 and 9, 9.30 a.m. to 9.30 p.m.

# Stands 47 to 60

accommodate any make of turntable and any amplifier, radio tuner or tape deck.

All legs are fitted with height adjusters, so that decks may be made dead level on uneven floors.

Similarly, there are several speaker enclosures suitable for almost any type of unit. A new "Auditor" enclosure, at £13 11s. 6d., has been designed to take 8, 10 and 12 in. units.



## QUAD (Stand 47, Demonstration Room 215.)

*Acoustical Manufacturing Co. Ltd., Huntingdon, Hunts.*

All the units in the famous Quad range will be displayed again—electrostatic speaker, power amplifier, control unit and radio tuner. This is an outstanding example of a firm which, having developed products of such unchallenged quality that an enviable reputation has been founded on them, does not experiment with new lines.

Their satisfaction comes in the evidence at Audio Fairs that the real enthusiasts find quality even more important than novelty.



## SIMON (Stand 48, Demonstration Room 118.)

*Simon Equipment Ltd., 48 George Street, Portman Square, London, W.1.*

All three machines in the Simon recorder range will be demonstrated and many visitors will probably have their first opportunity to see the Minstrelle "4S"—the matching unit which converts the popular Minstrelle recorder for stereo recording and playback.

Both the Minstrelle and the more modestly priced Cymbal use the Garrard magazine deck.

The SP.4, the 95 guineas machine which this firm offers for the connoisseur, will also be demonstrated.



## PYE (Stand 49, Demonstration Room 342.)



## CHITNIS (Stand 50, Demonstration Room 117.)

*Chitnis Electronics Ltd., 66, Bolsover Street, London, W.1.*

An entirely new tape deck of British manufacture will be displayed at the stand of Chitnis Electronics, a firm noted for its range of German built recorders. Technical details of the new deck are not available at the moment, but we understand it has been designed to standards suitable for semi-professional applications.

Coupled with this exhibit will be a novel scheme for visitors to the stand who will be asked to assist in the manufacture of a complete new tape recorder using this deck. The facilities most requested will be incorporated in the proposed machine.

At this, only the second appearance at the Audio Fair, the Audiograph label will be seen on five machines.

These include the two single speed, four-track stereo recorders, the KMS66 and the 9/S4K. The KMS66 with two speakers sells at 66 guineas, incorporates a wide range of facilities, and features the West German Bogen heads. The 9/S4K, at 56 guineas, is claimed to be the cheapest stereo recorder on the market.

Two speeds, 3½ and 1¾ ips, are provided in the KM22, a two-track machine selling at 48 guineas. Papst motors and Bogen heads are used in this recorder which has a four-track version at 54 guineas.

Their final machine is the AF42. Two speeds, 7½ and 3½ ips are provided on this four-track machine which was fully described in our February 8 issue. A joystick control is its main feature and it sells at 39 guineas.

The complete range of Chitnis-Beyer microphones plus the Chitnis-Vollmer professional tape deck completes their range of equipment.



## VORTEXION (Stand 51, Demonstration Room 149.)



## BUTOBA (Stand 52, Demonstration Room 321.)

*Denham and Morley Ltd., 173/5, Cleveland Street, London, W.1.*

The Butoba MT5 transistor recorder—an improved version of the MT4 first seen at last year's Audio Fair—will be demonstrated. This machine is the fruit of ten years' of continuous development



The Butoba MT5 battery portable

and provides a very high standard of recording and reproduction.

The recent introduction of the Rayovac 3 LP long-life battery has increased the battery life to about 100 hours. But this machine operates from mains supply or batteries.

It is a two-speed model, operating at 3½ and 1¾ ips.



## SHURE (Stand 53, Demonstration Room 252.)

*J. W. Maunder, 22 Orchard Street, London, W.1.*

A full range of Shure microphones—for broadcast, recording and communications work—will be seen, embracing moving coil, ribbon, controlled magnetic, ceramic, crystal and carbon types, with a variety of directional characteristics.

One new model in the range is the 545 "Unidyne III," a small high-quality dynamic mic with cardioid performance.

The high quality Shure pickups, arms

and cartridges will also be demonstrated, including a new cartridge, released for this Fair, intended for use with arms where a maximum playing weight of two grams can be guaranteed.



## VITAVOX (Stand 54, Demonstration Room 161.)



## COLLEL (Stand 55, Demonstration Room 213.)



## GOODMANS (Stand 56, Demonstration Room 315.)

*Goodmans Industries Ltd., Axiom Works, Wembley, Middx.*

This firm will be staging regular stereo demonstrations, using three of their popular and well-known units. One is the A.L.120 system, an enclosure measuring 24 x 11½ x 14½ in. and containing a 12 in. triaxial unit with attenuator control. The price is £29 10s.

The 12 in. Axiom 300 will be demonstrated in a Design Furniture enclosure and the 10 in. Axiom 110 in a Stamford enclosure. Both these firms have received the approval of the Goodmans acoustic laboratory for their enclosures.



## ARMSTRONG (Stand 57, Demonstration Room 202.)

*Armstrong Wireless & Television Co. Ltd., Warters Road, Holloway, N.7.*

Two stereo tuner/amplifier chassis will be displayed by Armstrong among their wide range of tuners and amplifiers. The larger of the two, the Stereo 12MK2, is described as the most complete chassis ever produced, combining an AM/FM tuner, a comprehensive control unit, and two high fidelity amplifiers in one unit.

Each amplifier provides 8 watts push-pull output, and the tuner covers the full VHF, medium or long wavebands. There is automatic frequency control on VHF and a ferrite aerial with two IF stages on the AM bands. The price is 42 guineas.

A junior version, the Stereo 55, providing 10 watts output, five each amplifier, with mono and stereo inputs for pick-ups, tape record and playback and also for possible future stereo radio, is available at 32 guineas.



## CLARKE & SMITH (Stand 58.)



## RADFORD ELECTRONICS (Stand 59, Demonstration Room 218.)



## CELESTION (Stand 60, Demonstration Room 334.)

*Rola Celestion Ltd., Ferry Works, Thames Ditton, Surrey.*

Celestion are showing a new loudspeaker, the Colaudio II. This has a very small cabinet of less than two cubic feet, made possible by the introduction of a new 12-in. Bass unit having a diaphragm moulded from one of the new expanded plastic materials.

Working with this Bass unit is an improved version of the HF1300 Treble

(Continued on page 31)

## Stands 61 to 73

# A new 25-guinea recorder —more hi-fi units

unit. Together they are claimed to reproduce the whole range of frequencies from 30-15,000 cps.

It is housed in a cabinet described as being of simple yet pleasing design and finished in selected walnut veneers, and capable of blending with the decor of the most beautiful home.



### W.A.L. (Stand 61.)

*Wellington Acoustic Laboratories Ltd., Farnham, Surrey.*

Three new products will be shown for the first time by this firm. One is a versatile, transistorised pre-amplifier, the W.A.L. Hi-Gain, which will include among its facilities tape equalisation. Another is the D-Mag, designed for tape and sound-on-film enthusiasts; the third is a new version of the W.A.L. bulk eraser, which will now deal with magnetically-recorded 16 mm. sound film as well as with recorded tape. The price remains the same—£7 18s. 6d.

This firm will also show both versions of their well-known Wal Gain transistorised pre-amplifiers—mono and stereo—and the Waltrak pocket audio oscillator.



### TEPPAZ (Stand 62, Demonstration Room 242.)

*Selecta Gramophones Ltd., 50, Southwark Bridge Road, London, S.W.1.*

The progressive French firm of Teppaz, who made their bow at the Audio Fair last year, will be there with two new models this time.

One is the Oscar Stereo record-player costing 38 guineas, the other the Transit Radiogram, a compact "play-anywhere" transistor unit priced at 39 guineas.

The radiogram has a two wave-band radio and a four-speed turntable, but is operated from 1.5 V. batteries.

The existing range of Teppaz record players and hi-fi accessories will also, of course, be displayed.



### AVELEY (Stand 63, Demonstration Room 354.)

*Aveley Electric Ltd., Ayrton Road, Aveley Industrial Estate, South Ockendon, Essex.*

A new range of wide-band audio amplifiers for high-fidelity reproduction will be introduced at this Fair by this firm. They incorporate the Dynaco patented circuit and the Avel toroidally wound output and mains transformers.

Demonstrations using these amplifiers for stereo reproduction will be staged throughout the Fair.



### CONNOISSEUR (Stand 64, Demonstration Room 221.)

*A. R. Sugden & Co. (Engineers) Ltd., Market Street, Brighouse, Yorks.*

A new styled version of the two-speed stereo transcription turntable will be the highlight of the Connoisseur stand. Further details of this, their latest development are not, unfortunately, available as we go to press.

The original two-speed turntable, and the Mark III stereo pick-up, announced at the Audio Fair last year, will again have a prominent showing.

A matching speaker enclosure, designed for stereo, and at a provisional price of £22 10s. will also be shown, together with a stereophonic amplifier and pre-amplifier. These twin channel units form a compact and versatile ally for either mono or stereo reproduction. Physically smaller than comparable single-channel equipment, they will deliver 6 watts nominal and 7½ watts peak in stereo, and 12 watts and 15 watts peak on mono. The pre-amp costs £16 10s., and the amplifier £24 10s.

To complete their display, Connoisseur will exhibit the Console, designed to house their other equipment. With space available for a tuner unit, it measures 32 x 18 x 17 inches, and costs £27 10s. Matching speaker enclosures are available.



### GARRARD (Stand 65, Demonstration Room 302.)

*Garrard Engineering and Manufacturing Co. Ltd., Swindon, Wilts.*

The full Garrard range—well-known to enthusiasts—will be shown, including, of course, the magazine tape deck which is now incorporated in a number of different recorders. This provides a good opportunity to enthusiasts to study the design of this first British tape magazine.

Turntables, transcription motors and pickups comprise the remainder of the display.



### WYNDSOR (Stand 66, Demonstration Room 318.)

*WyndSOR Recording Co. Ltd., 2 Bellevue Road, Friern Barnet, London, N.11.*

A new WyndSOR recorder priced at only 25 guineas, to be presented at the Fair for the first time, is described as making "a completely new departure in style." It is housed in an attractive lightweight cabinet of Swedish grained fibreboard. (See illustration on page 29.)

It is a standard half-track machine, operating at 3½ ips and taking spools up to 5½ in. Rewind time is three minutes for 850 feet of tape.

There are high and low sensitivity inputs (both at 1 megohm) and three outputs—one feeding the internal 7 x 4 in. speaker, another low impedance one to feed an external speaker and the third, high impedance, for monitoring and/or external amplifier.

Monitoring is possible by using the microphone as a monitor speaker. Facilities for superimposition are included and the machine can be used as a straight-through amplifier.

The makers state that the frequency response is "aligned to match the acoustically-designed cabinet." wow and flutter is quoted at less than 0.4 per cent R.M.S., and signal-to-noise ratio at better than -40dB.

An Acos Mic 45 microphone, 850 feet

of tape and a spare plug are included in the price. The recorder weighs less than 17 lb. and measures 16½ x 14½ x 5½ in.

WyndSOR will also be showing their well-known Victor recorder, in two- and four-track versions and the push-button track-choice Viscount Console.



### HI-FI NEWS (Stand 67.)



### M.S.S. (Stand 68, Demonstration Room 204.)

*M.S.S. Recording Co. Ltd., Poyle Trading Estate, Colnbrook, Bucks.*

The main feature of the M.S.S. stand and demonstration room will be the new range of four grades of magnetic recording tape in seven spool sizes. This new range is now available in unique ready-for-your-library book style containers with programme and title panels.

Various types of record/replay heads will also be shown and demonstrated; and items of particular interest will be a four-track demonstration test unit, and a head testing machine. This latter we are informed has nothing to do with phrenology or lie detecting.

The theme for the demonstration room exhibits will be *Twenty-five Years in Search of Perfection*, it being twenty-five years since the first M.S.S. equipment was designed and marketed.



### LOWTHER (Stand 69, Demonstration Room 237.)



### JASON (Stand 70, Demonstration Room 314.)



### W. B. STENTORIAN (Stand 71, Demonstration Room 311.)

*Whiteley Electrical Radio Co. Ltd., Victoria Street, Mansfield.*

Several new items will appear in the comprehensive range by this old-established firm. The "Whiteley Entertainment Unit" is a combination of tape recorder, switched VHF tuner, master control unit and power amplifier housed in a single unit.

A new bookcase-type speaker system will be demonstrated, using a specially-designed 9 in. unit. It is suitable for mono or stereo.

A stereo control unit has also been introduced, suitable for use with the WB.8S stereo amp. or two WB.12 main amplifiers.

A new 12 in. unit, with a new cone and suspension and an aluminium voice coil will also be demonstrated in a variety of ready-to-assemble cabinets.

This firm's speaker units range from 1½ in. to 18 in. diameter and are available in a variety of cone construction, speech coil impedance and magnet strength to suit all needs.



### BRITISH SOUND RECORDING ASSOCIATION (Stand 73.)

# “WHICH?”

## The Consumers Association replies to criticism of its recent report on recorders

MR. LUBIN in a letter published in your February 22 issue says that the report on tape recorders published by us in *Which?* failed to give the reader a full picture in several respects. May I try to answer his points?

1. From the 160 or so instruments on the market when we began our tests we eliminated battery models, all but one expensive model for professional use and very cheap models used mainly by adolescents. This left us with about 80 medium priced machines costing between £30 and £85.

We sent a list of these to ten large retail organisations dealing in tape recorders, to four technical editors, and to five independent consultants, who were all asked to give their opinion as to which machines had the best sales, were the most popular, and were nationally available. From the results of this inquiry, the 18 tape recorders finally investigated were chosen.

Each of the 18 manufacturers was also asked whether the model we had chosen was the most-sold in his range, and still available. Confirmation was given by all the 13 manufacturers who replied.

2. How anyone could assume, as Mr. Lubin suggests, that what we said about one model also referred to the same manufacturer's other models is beyond me.

3. The subjective listening tests were allocated twenty marks, out of 54 in the quality of recording and reproduction costs, and out of 145 in all the tests. All the qualities for which we tested fell easily into four basic categories. These were:—

*Quality of recording and reproduction.*

*Reliability in use.*

*Versatility.*

*Ease of operation and servicing.*

In our view the subjective listening tests were not given undue weight.

The subjective listening tests covered recorded speech as well as music. We used live recordings. All but three of the recorders were supplied with microphones and the microphones as supplied were used in the relevant tests. For recorders with which a microphone was not provided, one of the standard types with the other machines was used.

We decided to compare live recordings because speech is normally recorded live,

and although music is often recorded on to tape from radio or record players without the use of microphones, there are many record players, some radios and a few tape recorders which do not provide a direct link. In these cases microphones are a necessity.

4. We excluded the characteristics of loud speakers in overall frequency tests to obtain the intrinsic capabilities of the tape recorders. The effects of speakers were to some extent assessed in the subjective listening tests.

5. The ageing tests were not meant to be a precise simulation of normal use. They were a means to an end—that is to get the recorders into a used state under controlled, and therefore, comparative conditions. The failure of the counter on the Ferrograph, did not result in the machine getting a “poor” reliability rating, contrary to what Mr. Lubin says. In fact it was considered a minor fault and the Ferrograph was assessed “fairly good” for reliability.

6. Mr. Lubin says that it is dangerous to assess the reliability of mass-produced articles on one single test sample. I believe that the consumer is not unreasonable when he expects a high degree of reliability in expensive products like tape recorders.

I must also comment on some of the points made in your column *We take the view*.

1. When we select a product as a best buy, we do not imply, as you seem to infer, that this would be the best buy for everybody.

2. We agree that it would appear odd for a machine to have a poor frequency response and yet come out best on subjective listening tests. Whilst emphasising that our ratings were comparative only, we also would suggest that this points to the effect of speakers in limiting recorders response characteristics. In other words, the speakers on machines with wide fre-

# Letters to the Editor

quency responses, so limited these responses, that the final results were no better (in fact they were worse) than those of the machines with “poor” frequency responses. It also suggested that the human ear did not necessarily accept wide frequency response as a necessary criterion for “pleasing” effect.

3. We are not sure to which manufacturer you refer regarding his recorder's wow and flutter measurements. But his claim that no domestic machines can have such low figures, as our tests showed, is obviously not shared by the other 17 manufacturers concerned. If his machine was rated “poor,” it was because the other machines had better wow and flutter figures (the ratings were comparative). We did not score any marks for “Circuit Diagram”—simply quoting the tests in a Table (column headed Instruction Book).

4. The recorder which came out well on subjective listening tests but “poor” on output and distortion, got this “poor” rating because of an internal electronic fault.

5. If we purchased any recorders which had been used for demonstration purposes, surely, listening to them in shops would not have been sufficient to be able to pick them out. We would also like to point out that one manufacturer wanted us to confirm that we had bought his machine in a sealed carton.

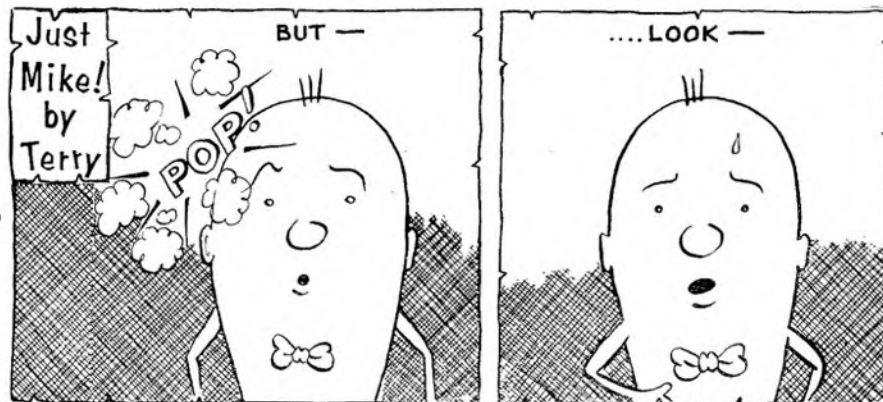
6. The time lag in starting a test and reporting in *Which?* is inevitable. Our selection of tape recorders was based on the current market in the summer of 1960, when all the instruments were bought.

It is not possible to test tape recorders, and most other products, in a matter of days, or even weeks. Naturally, we try to reduce the testing period to the shortest possible time.

CASPAR BROOK.

*Director and Secretary,  
Consumers Association Ltd.*

Just Mike day dreams of his success in the recording contest when he suddenly realises . . .





# Letters to the Editor

## We need better after-sales-service

I WAS very interested to read the letter from M. D. Howard and agree that many tape recorders on the market should never have been produced. But I should like to point out that good servicing is just as important as a good tape recorder. I have heard as many complaints of bad servicing as I have of bad workmanship in certain recorders.

It is a pity that such leading electronic companies as the E.M.I. group do not make a wider range of tape recorders for the domestic market.

London, W.12.

J. D. MARTIN.

# Where does the tape industry go from here?

## The Audio Fair might show us

YOUR correspondents dissertations upon the subject of Tape prices have been very interesting, but they have overlooked several important points.

There is no comparison between the cost of tape here and in the USA, no matter at what price it is sold over there. In the last two years USA prices have fallen because demand has fallen. But all retail prices are still in line, so far as the main makers are concerned, and where normal forms of distribution are followed.

If in fact there is a crying demand for "cheap" tape here, why then are not the cut price direct sellers inundated with orders. I can assure you that business is by no means brisk with many of them.

Why? Because the buyers look sideways and suspect the cut price item as being sub-standard. In most cases it is not sub-standard, it is in fact famous brand tape, in many cases, bought in bulk and wound on to three, five and seven inch reels.

If Mr. Turner thinks that the retail margin of 25 per cent on the sale of tape is a good one, I suggest he goes into that business in order to discover how wrong he is.

Mr. Wetherill's figures were clear, and I have no reason to doubt them. It is quite clear that the only reduction in price possible can come as a result of reduced manufacturing costs, which, with the ever rising cost of wages and raw materials seems to be highly unlikely.

Let us face it, the tape recording business is in a mess here. There are too many models available, quality in some is a doubtful element. Fortunately, it is not following the pattern, yet, of the USA where the market is flooded with machines from 18 dollar Japanese units up to 300 dollar units. Where pre-recorded tape manufacturers have gone to the wall in a few months; where no one really knows what the future holds. Is it to be four track, two track, high speed, low speed, reel or cassette.

Nobody knows "what the hell" to use the words of one of the leaders of the industry. Maybe the Audio Fair will indicate what the industry here has in mind!

My prophesy is that in two years from now the tape recorder "Band Wagon" will be a lot less loaded than it is now. The industry will have found its true leaders who will have planned a pattern for it in much the same way as the "pop" music planners shape the sound of the music to which we shall listen.

No! I am afraid that 10s. off a seven inch spool may help Mr. Turners' pocket, but it will not benefit the industry or its growth one iota.

A. CAMPBELL GIFFORD.

Recorded Tuition Club,  
London, S.W.1.

## ANOTHER CLARION MODIFICATION

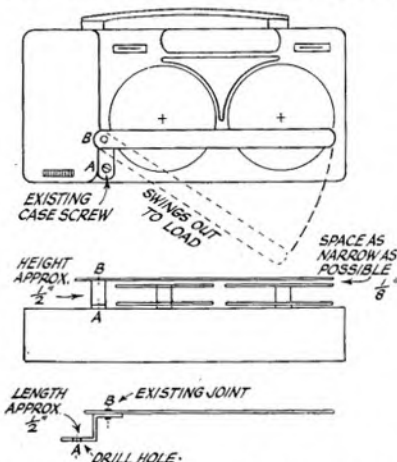
I HAVE noted readers' ideas to adapt the Clarion tape recorder so that it may be carried when in use without the spools falling off. Each idea had the disadvantage of "tailored" spools or hubs.

I enclose a sketch of my own remedy which I have used for six months, with 100 per cent effectiveness, to a point where, even with an  $\frac{1}{4}$ -in. gap, as indicated, I have purposely recorded upside down (typical Australian?—no comments please).

My modification consists of a 12-in. steel folding rule,  $\frac{3}{8}$  in. wide. This is cut about 2 in. from the joint, and, after heating, two opposite right angle folds are made in the shortest length (see sketch). The extreme lip of this end, about  $\frac{1}{2}$  in. long, is drilled to fit the existing case screw opposite the volume control. The rule is then painted and fitted leaving about  $\frac{1}{8}$  in. clearance.

It is inadvisable to paint the underside, as this extra coat could cause a resistance by occasionally touching the spool. If the metal is left clean, the spools may rub with no effect.

May I take this opportunity to say thank you to the Editor and readers for producing a magazine worth reading,

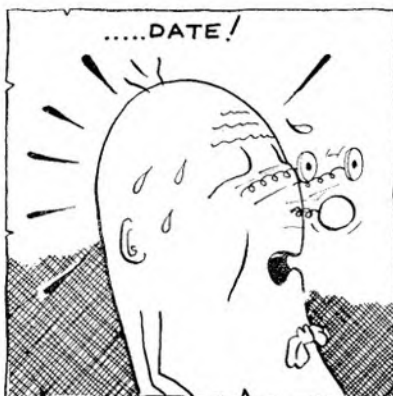
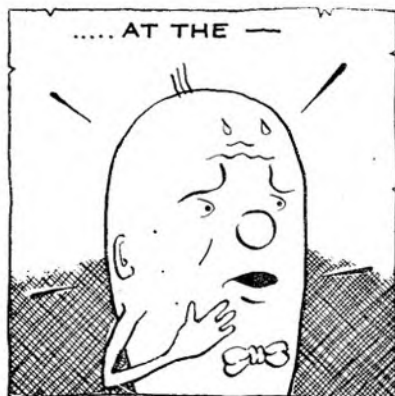


even though we do get it three months late.

Can anyone use a one minute recording of two Kookaburra's made out in the bush? I use a Telefunken at 3 $\frac{1}{2}$  ips.

RAY W. TORRINGTON.

Sydney, Australia.



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# WINNING THE WOMEN

WHEN the merits of Audio Fidelity records are being demonstrated by Mr. John Ridley you will always find an appreciative audience.

One of the reasons is that he never forgets that buyers are human beings. He has a very good product, and knows it is a good one, but he does not make the mistake of assuming that all will be well so long as a captive audience is exposed to the sound.

For a few people it may be true that the sound itself, once heard, is the only recommendation needed, but the majority make purchasing decisions only after a long struggle involving all kinds of personal doubts and problems—and this applies particularly to the question of going in for stereo.

It is not enough to convince people that stereo is the best possible sound. They often need help in deciding that it is important for them to have this sound in their own homes.

John Ridley is one of the people who are doing a lot towards putting stereo across on a broad front—once again by regarding potential buyers as human beings first and foremost and facing up to their problems as human beings living in

## Stereo Notes

By D. W. GARDNER

a normal world with other human beings, especially wives.

I am sure that there is a lot of thought and research behind the suggestion he made at the recent L.P. Festival that many women dislike stereophonic sound because they resent giving anything their undivided attention and also resent anything that takes the attention of others from themselves. This is associated with the fact that the listener must give his or her undivided attention to stereophonic sound in order to enjoy it to the full.

What is the answer? Perhaps the example of television can guide us. The same resentments must be at work there but television wins the day, presumably because its attraction for women is stronger than their resentments to it.

My solution then, is to do everything possible to ensure that wives enjoy reproduced sound in general and, consequently, stereo in particular. How many husbands, for instance, study the musical tastes of their wives and bring home recordings from time to time of their favourite composers and vocalists, selecting these discs, or tapes, with the same

loving attention that they bestow on their own favourites?

Think hard about this, husbands. Would you be as enthusiastic as you are about your hi-fi equipment if the music usually played on it happened to be deficient in respect of your favourite works instead of being heavily loaded in favour of them?

And what about the quality of reproduction? Is it really as good as it seems to be to you?

John Ridley went on to say, at Blackpool, that women have more sensitive ears than men and can possibly hear distortions that don't register with their husbands at all.

The trouble can be that your equipment—although near-perfect, perhaps, when you installed it—has developed some slight faults. This stresses the need for time being spent on maintenance.

All equipment, however costly, should be tested from time to time by a competent technician. Remember, too, that most faults develop slowly, and your ear therefore has time to adjust itself to the changes.

Obviously, however, the test that matters most is the one made by the woman of the house. If you have provided her with the records she likes, and if she listens to them regularly with unalloyed pleasure, then your equipment is doing a satisfactory job, and the path is as clear as it could be domestically for the next step forward—stereo perhaps.

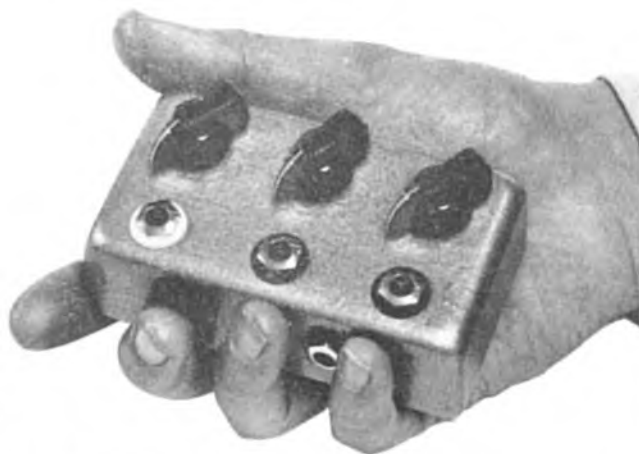
## DEKTRON

present their

### NEW IMPROVED MIXER - FADER

WHICH WILL ADD SO MUCH TO  
YOUR RECORDING TECHNIQUE

The unit is available for either three microphone inputs or two microphones and one high level signal e.g., radio feeder. Re-styled and attractively finished in hammer green it represents outstanding value at 45/-.



Also available as a matching unit to the Mixer-Fader is the DEKTRON MONITOR. This transistorised instrument which adds monitoring facilities to all tape recorders will also serve as an efficient pre-amplifier.

PRICE 5 gns.

DEKTRON, 2 WESTBOURNE ROAD, WEYMOUTH

# News from the Clubs

IT would seem that even the best of clubs have their irritating upheavals and general baiting of supposedly democratically elected officers, and it comes as a refreshing whiff to hear that the **Coventry** club is no exception following a recent paragraph in their newsletter.

Issue after issue we report the activities of a club, and in successive weeks one begins to wonder whether or not a bunch of supermen have been stumbled upon. No sign of haughty resignations, not even a murmur of dissent. Are they dictators? Are they butchers who will dispose of any would-be rebels? The answer to all of these is, of course, no. For at one of the recent meetings a rebel, or rebels, did come to light.

Now it is no matter of ours to inquire who, why, or what? In this chair a number of squabbles may be easily seen between the lines of the reports. It can do no good to publish such disagreements, in fact, it could even add fuel to the fire. No, we prefer to stay as far distant as possible when inter-society trouble brews.

And for this reason I began this fortnight's news with the Coventry club's recent embarrassment just to outline to many clubs that even the "giants" are only human after all. Needless to say, it is all over, and to quote their own newsletter, they "promptly forgot the foregoing and got down to the task of making our club a happy one."

To follow their high-spirited discussion at the March 2 meeting, the members first of all refreshed themselves during their normal interval and their customary raffle, and the meeting turned to the main item of the evening—demonstration of tape recorders.

First on the list was the Körting MT157 the stereo instrument owned and shown by chairman Bill Tisdale. To follow his general lecture on the advantages of stereo over mono, he produced two Heathkit speakers and gave a practical demonstration. An interesting comparison was held afterwards with Ted Lloyd's Stereophoner. Agreed opinion of the members was that it certainly enhanced mono.

Fred Hopkins was next in the chair, and once again stereo was to the forefront. His practical demonstration included the Grundig TK60, and he com-

pared the results using its own speakers and the Heathkit pair. It was said he was "pleasantly surprised" at the better response received.

Member Rex Hilliard who had taken along his Philips stereo machine had to be content to sit and listen as time was running out, and even tape enthusiasts have to conform to the licencing laws.

Their following meeting on March 16 was to take the form of an illustrated lecture combining the slides and voice of Mr. Dunkerley, the secretary of the Canals and Rivers Association.

The club's technical group report varying progress. The latest home-built piece of equipment, a 5-in. Heathkit oscilloscope, constructed by the chairman, was the focal point at a recent meeting, and equally in the limelight, but unfortunately absent was the club's dubbing machine. Peter Warden reported "a knocking sound" was being emitted from said recorder, and it was now scheduled for dissection.

A demonstration of tape and cine synchronisation was given at the March 9 meeting of the **Rugby** club. The show was presented by Mr. Ronald Hamblin who showed members a film of last year's activities of the Rugby Sailing Club. Precise sync. was achieved using a Walters tape recorder and stroboscope.

Three new members were welcomed to the meeting which was further enlarged by the presence of a number of visitors from the sailing club.

All joined in the customary quiz, presented on this occasion by secretary Mike Brown, and won by Mr. E. D. Middleton.

Two days after this meeting, the assistant secretary, Mrs. Vera Tilcock, and Mr. T. Davis paid a second visit to the ladies of the local Lodge. A number of personal messages and request tunes, asked for during their first visit, were played, and the novelty of the whole proceedings was infected into the Lodge members who bombarded the tape club members with further requests to be played during the next visit.

A change of secretary has been announced by the **Bath** society. The new representative is K. W. J. Gingell whose address is 9, Norfolk Crescent, Bath.

This club, who have not so far been mentioned in these pages, has over twenty members and claims to be very active.

Already in operation is a hospital tape service at the Winsby Chest Hospital, and it is hoped to extend the service in the near future. Tape exchanges are also in progress, and contact has been made with the Warwick and Leamington society.

Another of their regular features is machine demonstrations. The latest of these concerned the new Robuk RK3, which was shown by Mr. Harvey of Robuk Electrical Limited.

Tape quizzes are held regularly, and

at their first meeting in March, Mr. S. Farr compiled a guessing programme which was eventually won by the chairman R. Ventura. He was awarded a 3 in. reel of tape presented by member T. Tregalle.

The club has been approached by a number of local societies for assistance in recording technique. They are currently making preparations to gain themselves quite a bit of publicity by offering their services for the Bath Festival of Arts which is to be held in June.

Meetings are being held on alternate Wednesdays at the club rooms only recently acquired by members. In future, all meetings are to be held at St. Mary's Church Hall, Grove Street, Bath. The first meeting at this new venue was held on March 29, when a tape recording technician was to be present to talk and give demonstrations of unusual recording techniques and recorder maintenance.

Their next meeting, April 12, is to include a report on the Audio Fair. It is expected a number of members will travel up to London during the weekend to seek out the latest news of products and give a first-hand report to those unable to make the journey.

A full diary has been compiled by the members of the **South Devon** club for the spring months. The first topic on the latest forthcoming meetings' list was the talk and practical lesson on the workings of a tape recorder. The lecture was undertaken by Mr. E. Hayman of Waddington's of Newton Abbot, a local firm of retailers.

At their March 15 meeting Mr. Woodward had been cajoled into giving a demonstration under the title of *Cine, slides and tape*, a general display on improving cine and slide shows with the aid of a tape recorder. The latest meeting, March 29, for which details have not yet been received, was to include more practical work, this time on recording technique.

Lined up for the future are: a review of the Audio Fair which will be supplied by Mr. Donald Aldous, a name not unfamiliar to readers, and *Hi-Fi in sound and colour*, a film which many Audio Fair visitors will no doubt see on the Gevason stand. The film is being presented by Mr. Leslie Guest of Gavaert Limited, and will be seen by a combined audience including members of the S.W. Centre of the British Sound Recording Association.

Their Annual General Meeting is to be held on April 26, and at the following meeting, May 9, members will present a programme for the blind at the America Lodge, Middle Lincombe Road, Torquay. Visitors, as usual, are welcome.

The final note in their diary might give some indication of the difficulties a club secretary has in encouraging his members to produce tape programmes. The note simply reads "May 24: Tape Recording Contest. Entries should be received by May 17—on any subject." (My italics).

Details of this club are available from Mrs. G. Furneaux, 9, Enfield Road, Babbacombe, Torquay.

Have you ever placed Pyrex dishes on the strings of a grand piano, played the piano, recorded it, and replayed the recording at five times its original speed?

If you are lucky you will get the sound of a whole colony of insects excitedly

(Continued on page 37)

## Classified advertisements

Rate—Sixpence per word (minimum 5s.); Trade, ninepence per word (minimum 10s.); box numbers, one shilling extra. Payment with copy. Copy should be sent to Advertisement Department, "Tape Recording Fortnightly," 1, Crane Court, Fleet Street, London, E.C.4.

### SERVICES

Tape recorder need repairing? Then see London's Largest Tape Recorder Specialists do it for you, expertly and economically. Essex Tape Recorder Centre, 2, Maryland Point Station, Stratford, E.15.

FERROGRAPH 4 A/N's-808's, VORTEXION WVA, WV.B, SIMON SP4, REFLECTOGRAPH A-B, etc., always in stock and ready for immediate delivery, as well as over 200 latest 1960 recorders at London's Largest Tape Recorder Specialists. The best, lowest H.P. terms, and finest selection of new and s/h recorders, from £18. Generous P/E allowances. Essex Tape Recorder Centres, 2, Maryland Point Station, Stratford, E.15, and 205, High Street North, East Ham, E.6.

GRUNDIG sales/service in your area: High Wycombe phone 457, Newbury phone Thatcham 3327, Wallingford phone 3083, Orpington, Kent, phone Orpington 23816, New Malden phone Malden 6448, Watford phone Garston 3367.

### MISCELLANEOUS

WAL GAIN transistorised pre-amplifiers. Many applications, extra gain for Mics, Tape Heads, P-U's, etc. Mono version, £5. Stereo, £7 10s. WAL BULK TAPE ERASER, both tracks 8-in. reel erased 30 sec., £7 18s. 6d. WALTRAK transistorised oscillator, 1,000cps, indispensable for Service, £6 10s. Full technical literature sent, supplied through all leading dealers. Wellington Acoustic Laboratories Ltd., TRC Dept., Farnham, Surrey.

Recording Tape. Save up to 30 per cent. Send for list. Also 50 secondhand Recorders in stock. E. C. Kingsley & Co., 132, Tottenham Court Road, London, W.1. EUS 6500.

### PRE-RECORDED TAPES

Unique 40-page catalogue listing all makes, Mono, Stereo, 7½ and 3½ ips. Send 2s. 6d., refundable on first tape record purchased. Dept. 6, Teletape Ltd., 33, Edgware Road, W.2. PAD 1942.

FRIENDLY FOLK ASSOCIATION, 87, Terrace, Torquay. Leading International Correspondence Hobby Club since 1943. Now included, facilities for Tapesponding. Details free.

Something to sell?—equipment for exchange?—looking for a job in the hi-fi tape field?—seeking a tape contact abroad?—tape-to-disc services to offer?—expert staff needed? A classified advertisement in *Tape Recording Fortnightly* will bring you quick results—cheaply.

### MISCELLANEOUS

"STICKING TAPES"? Not if you keep them in polythene TAPE PROTECTORS to guard against dampness and atmospheric change. Per dozen, 3 in. 1s. 6d.; 4 in. 1s. 8d.; 5 in. 1s. 9d.; 5½ in. 2s.; 7 in. 2s. 4d.; 8½ in. 2s. 8d. From your dealer, or from SWAINS Papercraft Ltd., Dept. 6, Buckhurst Hill, Essex.

A BINDER is the ideal way of keeping your copies of *Tape Recording Fortnightly* clean and ready for easy reference. Available, price 14s. 6d. (post free), from 7, Tudor Street, London, E.C.4.

### TAPE-TO-DISC

Tape to Disc—All Speeds. Rendezvous Records. 19, Blackfriars Street, Manchester 3. Leaflet on request.

TAPE TO DISC RECORDING. Microgroove LP from 27s. 6d., 45 rpm EP—20s., 78 rpm—11s. 48 HOUR RETURN SERVICE—FINEST QUALITY. S.A.E. for comprehensive leaflet to: A. D. Marsh ("Dero Sound Service"), 52 Hest Bank Lane, Hest Bank, Lancaster.

### FOR SALE

FERROGRAPH STEREO 88—£60. Swain, 23, Falmouth Avenue, London, E.4. LAR.: 8401.

FOR SALE. New Cadenza crystal microphone, also Truvox Senior radio jack. The two £6. Urquhart, Bernisdale, Skye.

Brenell 5-star Tape Recorder unused. 20 per cent off list price. Good reason for selling. Box No. 409, *Tape Recording Fortnightly*, 1, Crane Court, Fleet Street, London, E.C.4.

E.M.I. TR50, RIBBON MIKE AND STAND, AS NEW, £85 o.n.o. HART, 60, Marsworth Avenue, Pinner, Middlesex. (Hat.: 1521).

All in perfect condition. Grundig TK35, £55. Grundig 4-channel mixer, £9 10s. 2 Grundig dynamic microphones, £4 10s. each. 2 Grundig condenser microphones, £3 each. Other accessories. Two Wharfedale W3 loudspeakers finished in walnut only two months old, £29 10s. each. A. S. Mackenzie-Low. Phone: Bexhill-on-Sea 3922.

Stuzzi Battery Tape Recorder "Magnette." Two speeds, Microphone and all accessories as new. £47. A. S. Mackenzie-Low. Bexhill 3922.

## TAPE EXCHANGES

TAPE recorder owners who would like to make contact with others of similar interests to exchange news and views by tape are invited to send their name, address, sex, age and special hobby or interest (but only one, please) for this special new section.

It will be assumed that all tape contacts will be made using a speed of 3½ ips, on half-track tape. If space permits, additional speeds, or track usage will be published. Maximum spool size only is given.

Brunskill, Harry. 20, Providence Terrace, Thornton, Near Bradford, Yorkshire. Ex-comedian B.E.S.A./ENSA would like to contact old pals on tape. Three-inch spools.

Cox, Ian (21). The Bungalow, Welcome Hill, Kings Langley, Herts. General interests. 3½ ips. 5½-in. spool.

Grimmond, Edward A. M. (33). 29, Abbey Court, Upper Park Road, Camberley, Surrey. Photography. Contacts in France particularly welcome. Prefers 3-in. spools.

Haynes, James (37), 18, Torre Mount, Leeds 9, Yorkshire. Popular music and photography. Female contacts wanted—letters first please.

Spring, H. A. (Male). 16, Newquay Avenue, South Reddish, Cheshire. General interests. Contacts home or abroad. 1½ to 15 ips. 7-in. spools.

Talling, Jack E. (33), F2a-64 Hough Green, Chester, Cheshire. 7½ and 3½ ips. Message spools only.

Woolterton, Robert (16), 72 Rectory Road, Manor Park, London, E.12. Sports; popular, country and western music. Seven-inch spools. 7½, 3½ and 1½ ips. Wishes to contact persons of similar age.

### SCHOOLS

Norwood Green J.M. School. Please contact J. Spicer (Miss), 20, Greenford Avenue, Southall, Middlesex. 300 pupils "exploring this fascinating field."

Raons County Secondary School Raons Road, Amersham, Bucks. (Mr Owen.) All speeds 1½ to 15 ips. 7-in. spools.

Shoreditch School, Falkirk Street, London, N.1 (John Howse, Teacher). Mixed Secondary, with 1,500 pupils. Wide range of "recordable" interests and activities. English and French languages.

Tindale Street JM High School (R. P. Aston), 63, Sansome Road, Shirley, Solihull, War.

\* \* \*  
Send details to "Tape Exchanges," *Tape Recording Fortnightly*, 7, Tudor Street, London, E.C.4.

# News from the Clubs

(Continued from page 35)

preparing for battle. At least that is what Malcolm Clarke of the **Leicester** club did recently. The recording was for a production of *The Insect Play*, or . . . and so ad infinitum, a play presented by the Capek brothers for a local school.

These sounds, and many others in a similar vein, formed the basis of Mr. Clarke's talk on musique concrete—and its theatrical applications which he gave at the club's February 24 meeting.

Every time the **West Middlesex** club committee lay on a "practical night" they have an exemplary attendance. This certainly was the case, writes secretary Sandy Saunders, for their March 8 meeting when a recording session for a play had been arranged.

He thought, initially, that there might

be a little difficulty casting for the proposed play *Apache Silver*, in view of the fact that it called for the services of two silver prospectors, a desperado and an Indian half-breed. However, his fears were without foundation and eventually the Treasurer was cast as the desperado, with Phil Pratt, Dave Conway and Dennis Marks ably filling the remaining roles.

A trial recording was made first, and the recording played back to check microphone positioning. Machines in use included a Brenell Mk. V, Spectone, Ferrograph, Vortexion WVA, Perth Saba, Grundig TK830, E.M.I. TR51, Sound 555, H.M.V. DSR1 and a Fi-Cord. The report adds that they would have had a Simon SP4 if transport had been a little easier. Well what about that! I do not propose to list the microphones to hand at the meeting, but the list was just as impressive.

Numerous sound effects were required for the script, and these, in spite of the welter of equipment available will have

to be dubbed-in later. The trouble—no running water at their club rooms, and everyone knows that prospectors must have running water. A 3 in. reel of tape is offered for the best tape finally produced. (N.B. Inter-club only.)

A social was held on February 18 to mark the first anniversary of the **West Herts** club. Eats, games and tape quizzes were the order of the evening, and in the generous party spirit prevailing members attempted to record their version of a "Western." During the evening members heard a taped birthday message received from the Blind Club at Rickmansworth. This contained thanks for the recorded material enjoyed by its members during the past year, and accompanied a 7 in. reel of tape presented to the West Herts members.

At a regular meeting three days later, their AGM, the governing committee were re-elected. This includes chairman John Grainger, secretary Peter Holloway, and treasurer Sid Attwood.

Present for the evening was Mr. Stan Freeman, who owns a local tape recorder dealers. He presented a silver cup to the club and suggested it be competed for annually. It was readily agreed that the competition should take the form of a tape interview with an elderly inhabitant who would be able to comment on the changes during the past fifty years. Such was the gusto with which the suggestion was received that the competition has already had a closing date set for May 3. No wasting time at West Herts.

After the discussion a tape produced by Michael Coates was played. Entitled simply *The Story of Flight*, his tape gave a humorous but factual account of the development of the aeroplane.

A Grundig TK1 battery recorder was also made available for inspection at this meeting.

Their next meeting, on March 8, was devoted to the National Contest, and we take it that this is as good an opportunity to remind clubs of the closing date for this contest which is June 30. It might be an idea to take note of what happened to "Just Mike" whose adventures come to end on page 33 of this issue.

One of the youngest members of the club, John Thompson, has announced that he has started a club among his fellow pupils at the Corner House School. Meetings are held during their lunch break, and the society is to run along the lines of the parent club. They have even organised a visit to a local recorder manufacturer.

In all aspects the West Herts members seem to have things under control, except that is, for one particular instance when an unusual experience proved too much for one of the lady members.

The occasion was a visit to the Acoustic Research Laboratories at Hemel Hempstead. About 18 members had gathered for the tour of the premises, and all went fine until they entered an echoic chamber. One of the ladies was so affected by the strangeness of an echoless room that she had to leave. The discomfort was short-lived, however, and she rejoined the party in time to enter the reverberation chamber where the members were enthralled with taped recordings of organ music.

During the continued rounds, they saw a Brenell Mk. V and a Simon SP4 placed on the bench for wow and flutter and frequency response tests.

## CLUB MEETING DIARY

Is your club included in this list? If not, send details, on a postcard please, including date of the next meeting.

**ACTON:** Alternate Fridays at the King's Head, Acton High Street. (April 14.)  
**BATH:** Alternate Wednesdays at 35, Green Park, Bath. (April 19.)  
**BATH:** Alternate Wednesdays at St. Mary's Church Hall, Grove Street. (April 19.)  
**BIRMINGHAM:** Every Monday at the White Horse Cellars, Constitution Hill.  
**BLACKPOOL:** Every Wednesday at 173, Church Street.  
**BOURNEMOUTH:** Alternate Tuesdays at the Civil Defence Centre, Holdenhurst Road. (April 18.)  
**BRIDGWATER:** Alternate Tuesdays at Erio's Radio, West Street. (April 4.)  
**BRIGHTON:** Every Wednesday at Fairlight School, Pevensey Road.  
**BRIXTON:** Alternate Tuesdays at the White Horse, Brixton Hill, S.W.2. (April 11.)  
**CAMBRIDGE:** 2nd and 4th Wednesdays at the Mitre Hotel, Bridge Street.  
**CATFORD:** Every Friday at St. Mary's C.E. School, Lewisham, S.E.13.  
**CHESTERFIELD:** Every 3rd Monday at the Yellow Lion Inn, Saltergate. (April 10.)  
**COTSWOLD:** Every 3rd Thursday at the Theatre and Arts Club, Cheltenham. (April 13.)  
**COVENTRY:** Alternate Thursdays at Queens Hotel, Primrose Hill Street, Coventry. (April 13.)  
**CRAWLEY:** 1st and 3rd Mondays in month at Southgate Community Centre.  
**DARTFORD:** Every 4th Tuesday at Dartford Public Library.  
**DOVER:** Alternate Mondays at The Priory Hotel. (April 17.)  
**DUNDEE:** Alternate Mondays at The Salvation Army Hostel, 31, Ward Road. (April 10.)  
**EASTBOURNE:** Alternate Saturdays at Hartington Hall, Bolton Road. (April 15.)  
**EDINBURGH:** 1st Tuesday and 3rd Sunday at 23, Fettes Row, Edinburgh 3.  
**ENFIELD:** Alternate Wednesdays at Bust Hill Park School, Main Avenue, Enfield. (April 12.)  
**GRANTHAM:** Weekly. 1st week in month, Wednesday; 2nd, Monday; 3rd, Thursday; 4th, Friday, at Grantham Technical College, Avenue Road.  
**GRIMSBY:** Alternate Tuesdays at the RAFA Club, Abbey Drive West, Abbey Road. (April 11.)  
**HARROW:** Alternate Thursdays at St. George's Hall, Pinner View, North Harrow. (April 6.)  
**HUDDERSFIELD:** Fortnightly, alternate Thursdays and Fridays at the Congregational Church Schoolroom, Great Northern Street. (April 6.)  
**ILFORD:** Every Tuesday at the RAFA Rooms, Cranbrook Road.  
**IPSWICH:** Fortnightly, alternating Fridays and Saturdays at the Art Gallery Committee Rooms April 20) and the King's Arms Hotel, Cornhill. (April 7.)  
**KEIGHLEY:** Alternate Wednesdays at the South Street Sunday School Rooms. (April 19.)

**KETTERING:** Alternate Wednesdays at the Rising Sun, Silver Street. (April 12.)  
**LEEDS:** Every Thursday at the British Legion Club, Albion Street, Leeds 1.  
**LEICESTER:** 1st and 3rd Friday at Bishop Street Reference Library.  
**LONDON:** 2nd and 4th Thursdays at the Abbey Community Centre, Marsham Street, S.W.1.  
**LUTON:** 2nd and 4th Tuesdays at Flowers Recreation Club, Park Street West, Luton.  
**MAIDSTONE:** Alternate Thursdays at the Corn Exchange. (April 13.)  
**MANCHESTER:** Every Saturday, 6 p.m., at 20, Naylor Street, Hulme, Manchester 15.  
**MIDDLESBROUGH:** Every Tuesday at 130, Newport Road.  
**NOTTINGHAM:** Alternate Thursdays at the Co-operative Educational Centre, Broad Street. (April 13.)  
**RUGBY:** Alternate Thursdays at the Red Lion, Sheep Street. (April 6.)  
**SOUTHAMPTON:** 2nd and 4th Thursday at The Bay Tree Inn, New Road.  
**SOUTH DEVON:** Alternate Wednesdays at the Man Friday Cafe, Torwood Street, Torquay. (April 5.)  
**SOUTH-WEST LONDON:** Every Wednesday at Mayfield School, West Hill, S.W.18.  
**STAFFORD:** Alternate Tuesdays at The Grapes, Bridge Street. (April 18.)  
**STEVENAGE:** Alternate Tuesdays at the Tenants' Meeting Room, Marymead. (April 11.)  
**STOKE NEWINGTON:** Every Wednesday at 53, Londesborough Road, N.16.  
**WALTHAMSTOW:** Alternate Fridays at 26, Church Hill, E.17. (April 7.)  
**WARE:** 2nd Tuesday at The Old Brewery Tap, High Street.  
**WARWICK:** Alternate Wednesdays in Rooms 18 of the Royal Leamington Spa Town Hall. (April 5.)  
**WEST HERTS:** Fortnightly, alternating at the Cookery Nook, Watford (April 19) and Heath Park Hotel, Hemel Hempstead. (April 5.)  
**WEST MIDDLESEX:** 2nd Thursday at the Railway Hotel, Station Road, Hampton, and 4th Thursday at St. George's Hall, Lancaster Street, Southall Broadway.  
**WALSALL:** Every Wednesday at 113, Lichfield Street.  
**WEST WALES:** 1st and 3rd Thursdays at The Meeting House, New Street, Aberystwyth.  
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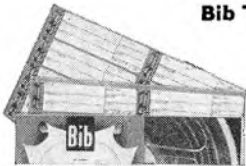
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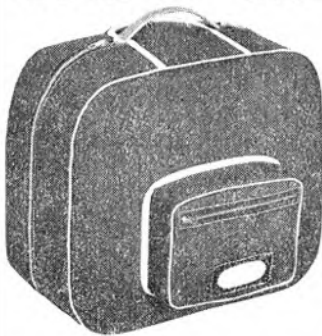
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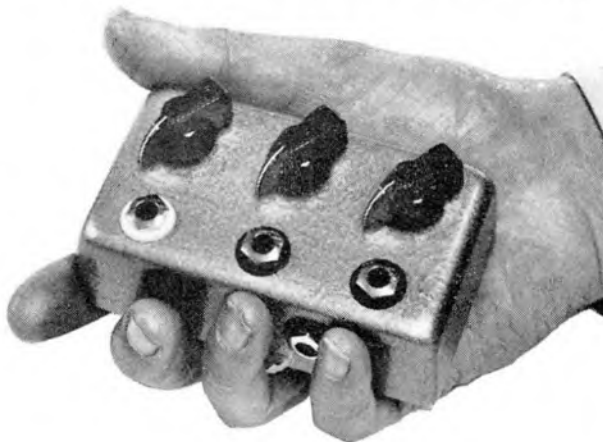


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Vol. 5 No. 8 19th April, 1961

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The Editor is always glad to receive articles, news items, illustrations, etc., intended for publication. When not accepted, material will be returned if a stamped addressed envelope is enclosed, but the Editor cannot accept responsibility for the safety of such material.

"Tape Recording Fortnightly" is available by a postal subscription at 45s. per annum, post free, or it can be obtained at newsagents, bookstalls and radio and music dealers. In the event of difficulty, write to the distributors.

Back numbers, if still in print, are available at 2s. 6d. per copy for issues up to November 1959, and 2s. per copy for later numbers.

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# We take the view . . .

A DIGEST OF NEWS, COMMENT AND EDITORIAL OPINION

**I**N a number of ways, I think that tape recording is now at a crucial stage of its development. Principally, of course, we must soon see some decisive action about standards—if the industry and hobby is to go ahead on an orderly, healthy basis.

But the evidence accumulates that this is a testing time, too, for the tape recording clubs.

There are about 100 of them, scattered the length and breadth of the country, perhaps two-thirds of them meeting regularly, and a dozen or so more meeting from time to time. But the numbers do not appear to be increasing as rapidly now as a year ago, and the clubs that are established seem sometimes to be flagging in their enthusiasm.

The Federation of British Tape Recording Clubs holds its annual meeting in June and I hope that representatives of its affiliated local clubs will then consider seriously what more can be done to spread organised activity.

It is understandable that a newly-formed club should be able to sustain interest through its first half-a-dozen meetings, simply by bringing together the equipment owned by various members, and examining and discussing it.

After that, there is scope for a num-

ber of talks and lectures, though the difficulty here is a shortage of lecturers. Some manufacturers have played a noble part in supplying speakers, but much more could be done.

I think the time has come for an ambitious co-ordinated effort by clubs and the leading firms in the industry, calling in the support of retailers. First contact between a new enthusiast and his local club is best made at the point of sale, i.e., in the retailer's shop. And it is so obviously in the retailer's interest that his customers should join and so have their interest encouraged and sustained.

The manufacturers will have to take the initiative if progress is to be made on these lines. If they cannot provide lecturers what about lectures or features concerned with tape recording supplied on loan *on tape*—with accompanying film or transparencies, if considered necessary?

Manufacturers could do more, too, by giving practical assistance to the Federation.

My own view is that the only sure way of getting the club movement firmly established is to encourage creative recording activity. What maintains

success of the cine clubs? Making films, surely. Similarly, the way to develop tape recording club activity is by keeping them at work making tapes.

That is why we have always attached so much importance to the British Amateur Tape Recording Contest and why we hope in future to provide new opportunities for creative recording. The contest we are currently organising with the agents for the Stuzzi machines is one such. We have other ideas up our sleeve.

## Audio shows

**I** AM writing in advance of the Audio Fair and my report on it will come first through the BBC "Sound" programme, rather than in this column. But whatever new developments escaped our attention in the full review in our last issue will be dealt with in detail in the next number.

Col. Cyril Rex Hassen, who has organised all the Audio Fairs to date, is this year taking the responsibility, for the first time, for the organisation of the Audio Hall section of the Radio Show. It seems likely, therefore, that we shall settle down to a rhythm of two first-class audio shows each year.

## Tape journal for the blind

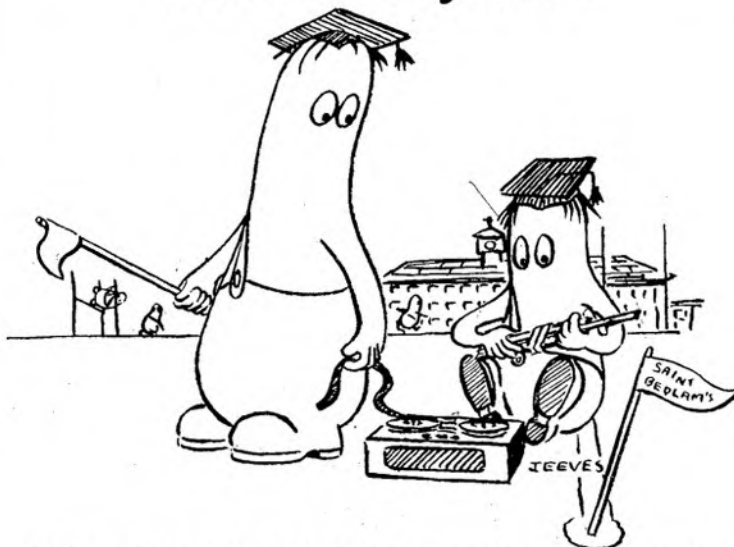
**T**HE Royal National Institute for the Blind has sent me a copy of a new Braille magazine called *Tape Record*, which is to be published quarterly for those who are tape enthusiasts or interested in disc releases.

I am afraid I cannot interpret any of the contents, but the Editor tells me that several articles have been reproduced from this magazine.

"There is a real need for information of this kind available in Braille," he tells me.

If you have blind friends who are interested in tape, bring this new publication to their attention. The second number will be out on May 12 and the subscription is five shillings a year, post free.

## LAUGH WITH JEEVES



"Well Smithers, I calculate that if you walk for 1.6 minutes at  $3\frac{3}{4}$  inches per second, it should mark out the hundred yards"



## CURRY'S "MAKE-A-TAPE" SUCCESS

WE never dreamed that people were using tape-recorders so enthusiastically. This was how Monty Bailey-Watson, the producer described the outstanding success of *Make-a-Tape*—the talent-on-tape radio show, organised by Currys Ltd., the television and radio multiple stores.

For the last three months Currys have been asking people to send in two-and-a-half-minute tape recordings in a nation-wide talent competition on Radio Luxembourg.

"There are still very few families who own a tape recorder and recording a tape of this kind means a lot of hard work," says Brian Dencer of Currys. "We expected round about fifty tapes a week. In fact we got four times that number. It meant a lot of extra work all round



The Baronets with Mr. J. W. Curry and compere Macdonald Hobley

but *Make-a-Tape* has done what we wanted. It has shown tens of thousands of people what fun a tape-recorder is."

The national finals of the show were held last month at Butlin's most luxurious theatre in Bognor Regis. Two thousand people saw the panel of judges—a TV producer, a theatrical agent, a tape-recording expert, a film director and a record talent spotter—award first prize

to the Baronets, a close harmony group from Edinburgh. A record contract has already been offered to Grant Tracey and the Sunsets—a teen-age rock group from Hackney—who were runners-up, and both prize-winners are to be auditioned by H.M.V.

Currys have decided to drop their intended future programme on Luxembourg to make way for a second edition of *Make-a-Tape* which will run during April, May and June.

## THE WORLD OF TAPE • A NEWS ROUND-UP

### TAPE AND THE SCIENCE MUSEUM

THE London Science Museum has started tape recorded conducted tours for visitors. Last month, visitors to the Museum were able to take advantage of a completely new system of guided tours, a system which the authorities foresee will be widely introduced in the future.

It consists of a lorgnette-type receiver which the visitor holds to the ear during his tour of the various galleries. A loop aerial in each gallery transmits a pre-recorded tape commentary. This signal is picked up by the seven-ounce receiver, providing an excellent service for anyone with a highly retentive ear who does not like to read, or wants to "do" the museum as quickly as possible. The

receivers can be hired for 1s., plus a returnable deposit of 10s.

About sixty of these £25 receivers will be used in each of the iron and steel, sailing ships and electric power galleries, for a six-months' trial period.

One advantage of the system is that the visitor can make the tour more than once. The recording is constantly re-played without shortening because the guide's feet have started to ache, although, of course, it is not possible to ask questions of a disembodied voice.

The Ministry of Works, the museum authorities, and the Multitone Electric Company, which produced the equipment, are enthusiastic about the scheme, the first of its kind to be installed in a national museum.



**B**londe Bombshell Betty Hutton, newly arrived from Hollywood, was the guest of honour at a reception given by Grundig last month. Members of the technical and national Press were invited to the celebrity evening which was also attended by leading personalities of the show business world.

Our photograph shows Miss Hutton with her new TK1 battery recorder, and Al Burnett who presented the battery recorder on behalf of Grundig. Fascinating features of this instrument is Miss Hutton's initials which are engraved on the lid in gold, and the pre-recorded tape given with the recorder.

To the chimes of Big Ben, band-leader Wolff Phillips, who worked with her when she was last in London in 1952, welcomed the star on this tape. His greeting was followed by the recorded comments of leading London critics who had attended a special charity preview the night before.



A Robuk RK3 played a prominent part amidst distinguished company during a recent meeting of the Diesel Exhaust Fume Abatement Society, when the whole of the proceedings were recorded for eventual translation into type-script. In the photograph left to right are: Harley Street Physician Sir Walter Ferguson Hannay, Lord Colwyn, and Mr. John McGuire of the United Commercial Travellers' Association, and the eavesdropping RK3

# ALAN EDWARD BEEBY'S TAPE TALK

**H**ERE'S something rather odd. Would you say that it's possible for a tape recorder to suffer from the same sort of interference from passing traffic as a television-receiver? I ask because of something which happened to a colleague and myself a few days ago.

We were making a recording in a room in my house which looks out on to the street when a car drew up directly opposite the window. It stood, for a moment or two, with its engine running, and then moved away again.

Upon playing the recording back, we discovered that, at the very point where the car appeared, a series of violent popping sounds had materialised on the tape, exactly the same as those which accompany visual interference on a television set.

Now, here's the odd thing. Last week, I asked three senior electronics engineers for an explanation of the phenomenon. Each said that *it couldn't possibly happen!* Well, I can assure them that it did: what's more, I've still got the tape to prove it! I should be interested to know if any of my readers have had similar experiences with their equipment.

**R**EADER Bernard Tabnell, of Leeds, was invited to take his machine out to a lonely village ten miles away recently to the home of an elderly invalid, who was anxious to send recorded greetings from herself and her family to a relative living in South Africa.

Obligingly, Bernard piled his equipment into the sidecar of his motor-cycle one evening and set off. Alas, his kind gesture was fated from the outset!

"It was pouring with rain," he told me. "I had a puncture on the way, slipped and sprained my ankle on an unmade roadway, and called at the wrong house by mistake and had my leg savaged by a small but belligerent poodle!"

Arriving at the old lady's home at last, Bernard began to set up the recorder.

"Where's your power-point?" he asked. The old lady gazed at him blankly. "Power-point," repeated Bernard, mouth- ing the words carefully, "Where is it?"

Still the blank stare. Then the hor- rible truth slowly dawned . . . !

**I** WONDER how many readers felt as I did after watching Walter Gillings taking part in the BBC's "Get Ahead" television programme recently. He was contesting for the £5,000 first prize to enable him to establish a "talking news- paper" for the blind, on tape.

The outcome of his interview with the judging-panel was pathetic: and I don't mean from Walter's side, either. He presented a clear-cut and convincing case in support of something which he be- lieved in, understood thoroughly, and

towards the fulfilment of which he was prepared to devote all his time, talents and energy.

But the judges . . . oh, dear! Indus- trialist Sir Miles Thomas, actress Valerie Hobson, and the Editor of the *Daily Mail* (who sponsor the contest), all three of them highly efficient and capable people of sound judgment and practical experience, but . . . did any one of them know *exactly* what it was all about?

It was difficult, for me at any rate, to gather just what they *did* think of the idea, apart from a unanimous feeling that BBC Sound Broadcasting was already serving the interests of both blind and sighted people alike quite adequately with national news-broadcasts and regional programmes. A bit weak, that, I thought.

Maybe the economic factor bothered them. Not that there was anything of the "shoestring" method of operation about Walter's proposed scheme: with a £5,000 initial boost, the project could have carried itself, and expanded, with no trouble at all. It was not a gamble in any sense of the word: simply a non- nonsense business proposition *with* profits, and he had the figures available to prove it.

It also had the added recommendation of providing a useful and practical service to thousands of blind people all over the country.

The judges finally awarded the most points to another contestant who had invented a new type of grip for stair- carpets. (That made me squirm, I can tell you!) They also told Walter that— yes, here it comes!—they thought that a project of this sort could be handled far more effectively by one of the existing organisations.

Right! Let's take them at their word, shall we?

To the Royal National Institute for the Blind: "Dear Sirs, May I draw your attention to Mr. Walter Gillings' proposal for the organisation of a National Tape Newspaper for the Blind? There are, I can assure you, literally hundreds of tape recording enthusiasts ready and willing to lend a hand with the scheme on an entirely voluntary basis. The trouble is—and let's not be timid about it—we need a fair amount of hard cash to get the scheme under way. Dubbing equip- ment, tapes, transport, etc., all have to be purchased. Will you help?"

*I was in a local bookshop the other day and had to give my name and address in connection with a book I was ordering.*

"Sounds familiar," remarked the shop- keeper, "don't you write for one of them tape recording magazines?"

"Yes," I said, "Tape Recording Fort- nightly."

He grinned. "Ah, the 'Old Firm'."

"Pardon?" I said, not catching on.

"The 'Old Firm'," he repeated, "that's what the wholesalers call it round this area." Quickly on the scent for possible column- fodder, I asked him why this was.

"Well, they was the first, you know," he replied. "Mind you, they're all at it these days, but 'Tape Recording and Hi-Fi' was the first."

"Yes," I said, "I believe they were."

"Very reliable magazine, you know," he went on, "bit o' class with it, as you might say." Then, nodding towards a pile of similar technical magazines: "Which is more than can be said for some of 'em. All adverts an' gimmicks, you know what I mean." I began to puff my chest out slightly.

"You write for any other recording books?" asked the bookseller.

"Certainly not!" I retorted. And, do you know, I felt most insulted! The 'Old Firm'. M'mmm . . . I like that. Wonder if we could get a tie designed.

**I** WOULD like to offer a word of cau- tion here to anyone receiving a com- munication offering a free spool of tape in return for the names and addresses of seven other tape users. A colleague of mine, Mr. Alan Ashton, of Well- ingborough, has replied to one of these com- munications in a letter containing some pretty searching questions. At the time of writing, no reply from the afore- mentioned firm of tape distributors has been received. It's nearly a month since he wrote to them. . . .

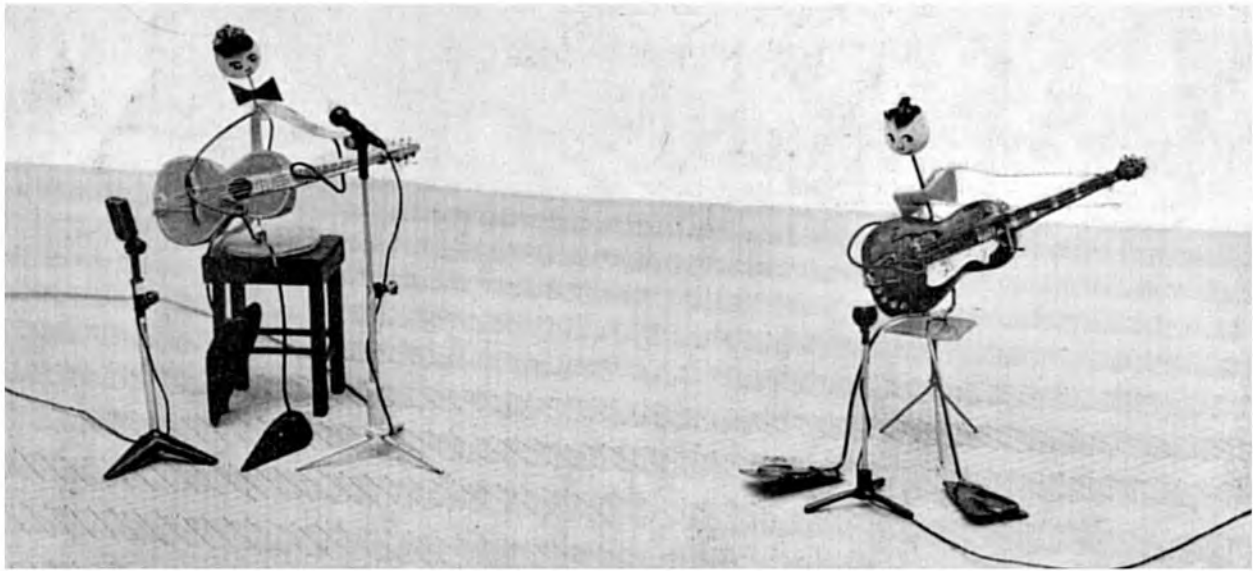
For the moment, I will simply say that I am not entirely satisfied; the price of recording tape, as we all know, is high enough as it is, and I can't see a firm *giving* the stuff away in support of a rather shaky and unpredictable form of sales boost.

I could be wrong, of course, but I'll report again later when I have more details.

**H**AVING recently become the owner of a house for the first time in my life, I have to report that the situation arouses definite feelings of adventure and possibility in the mind of the recording fanatic, quite apart from the "security- in-one's-declining-years" angle.

I have, for example, an idea for ex- perimenting with a speaker-baffle mounted in the wall. I'm told that this is one way of obtaining the very finest results from a loudspeaker. Think I'll make a start on it this week-end.\*

**FOOTNOTE FROM MRS. BEEBY:** He's not going to do any such thing; I've never heard such a ridiculous idea in all my life! Whatever next? Besides, that room's only just been decorated. And another thing . . . Oh, what's the use!



# MICROPHONE POSITIONING

*Continuing our entirely novel series describing the problems faced by recording enthusiasts. With the help of models, representative problems of microphone placing will be created, described, and advice offered by NAOMI ARCHER.*

THE time has yet to come when tape recording contests, in one form or another, occur as frequently as the daily crossword puzzle. There seems to be plenty of scope, however, for the newly-initiated to try his hand at live recording with a purpose.

The guitar has the advantage of being extremely popular, portable and self-sufficient for recording programmes for almost every occasion, not forgetting recording contests. So it is likely to attract the "what-shall-I-record?" newcomer.

Ask any young person if he knows of a guitarist and you will probably get an affirmative reply. In some cases the "material" has arrived and "waiting in the lounge" before the new recorder has even seen the end of a microphone cable!



This time the model picture is divided and shows two of the many alternative techniques used for recording a vocalist with an acoustic guitar, depending on the acoustic conditions and strength and tone of voice with the nylon or steel-strung instrument.

One good microphone of, say, omnidirectional pattern should give very good results with a steel strung guitar and a

strong vocalist; or, if room acoustics permit, a solo instrumental should record well with any type of high quality microphone.

The method shown on the right of the picture can be used in a softly-furnished room; otherwise curtaining can be draped across to reduce the reverberation time. This is considered less problematic than the use of the cardioid or bi-directional microphone, where the sound source should be kept constantly on axis to the mic to avoid any tonal deviation.

Should the voice be considered too soft, perhaps quieter than the guitar, then a single microphone technique could prove very difficult. If the mic is moved close to the mouth, the distance between one sound source and the other may be greater than that with which the pick-up pattern could cope, that is, the microphone would not be suitably placed in relation to the sound box or vents.

The situation could well be reversed in that a nylon or gut strung instrument, which is favoured by the Spanish stylist, is so much more difficult to record at a high level. The sweeter softer notes could be lost, especially if the player is a fairly strong vocalist, and here again one microphone could be tricky to use.

With the aid of the left-hand illustration, let us then consider the use of two microphones of either the cardioid or bi-directional patterns, plus a small mixer. The cardioid could possibly be

placed closer to the vocalist, if he is the quieter. Naturally, a ribbon type microphone would not work so close to his mouth without deepening the bass tones.

The second microphone, therefore, would be placed at about 2 ft. from the vents on the guitar. A good ear and a mixer will soon effect the desired balance, though whether musicians will consider it the correct one is something to find out by experiment!

Occasionally, a microphone stand which can be adapted with a cross-arm might ease the problem of close-mic positioning, but in this method, picking up with an omni-directional mic, the fretting or fingering actions can sound horribly jangly.



The cardioid microphone in close position to the voice is possibly one answer for avoiding these unwanted sounds. On the other hand, judicious use of a ribbon mic can add substance and a mellow quality to a thin voice, and at the same time the "dead" side could be directed to the previously-mentioned noises.

A problem which is often and easily overlooked is that the vocalist may turn his head to watch the frets or strings and perhaps sing right off axis to both microphones; the result can then sound hollow and tinny.

Bearing this in mind, there should be a mean mic position which caters for a slight turn of the head. A sixth sense can be an asset in tape recording!

**K**EEPING a diary is fun when you can look back and read about the things you've accomplished. Of course the other entries, the ones you'd rather not talk about, aren't such fun to look back on but I'm glad to say there are very few of those in my diary for the past month.

My own tape club's miniature audio fair took place on March 18, and I'm only now beginning to recover from it. All the members threw themselves into the spirit of the thing magnificently and literally hundreds of people examined our exhibition and attended our live recording demonstrations. Lots of them showed a very keen interest in our activities, but it's surprising how ignorant some people are of the uses of a tape recorder, and I was very pleased indeed to have this chance to talk to them.

One gentleman subjected the room to some very searching glances and so I went up to him and remarked that I was glad that our exhibition was of such interest to him.

"Not really," he answered. "There's nothing here that interests me in the slightest. I'm a student of architecture and this is the first modern school building I've been able to get into..."

At this time of the year I usually find myself involved in the recording of some major choral work on a grand scale, and sure enough this



engagement turned up at short notice the other day.

The performance was to be of Mozart's Requiem Mass given by a large combined choir with orchestra in our small parish church.

I attended a rehearsal with my husband and we were appalled to find that the instrumentalists and choristers were jammed tightly into every available inch of space; there was just no floor left for our microphone stands apart from an area the size of a pocket handkerchief in front of the conductor's rostrum.

My husband is in sole command on a big occasion like this and my function is to do strictly as I'm told and nothing more, or else!

We arrived early to place our microphones and run out the cables. These were to go through the door into the vestry, but that wretched door was locked and we couldn't get it unlocked until a few minutes before the performance was due to start. But it didn't matter very much because the solo soprano hadn't turned up and everyone had to wait for her.

She eventually arrived rather late in an apologetic flurry and at once exploded a major bombshell by

## My Diary

announcing that she didn't want to be recorded! The orchestra then squeezed into their seats and I realised with horror that the bassoon player had shifted his chair a couple of inches and was about to play directly into one of our microphones. As the audience were all in place and the gangway was completely blocked I could do absolutely nothing about it except look helpless.

Sure enough we ended up with a recording of 150 lusty voices, the full power of the church organ reinforced by the orchestra, all dominated now and again by the oom-pa-pa oom-pa-pa of the bassoon!

Within a few days of writing this I shall have the pleasure of meeting some of my readers at the Audio Fair. It will all be over by the time these words find their way into print, but I'll tell you about it in the next "Make Way for the Ladies."

## HEADS AND TAPES

**I**N the spring a young man's thoughts, and all that. Why a young man's thoughts? Are our feminine thoughts less stirred at this time of reawakening natural life, or is it merely that we are not credited with being capable of logical thought in the first place?

Our more frivolous excursions into fantasy are laughed to scorn by the opposite sex, but doesn't it occur to the mere male that the acquisition of a particularly exotic piece of headgear is the only practical way left for some of us to express our feelings and to advertise to the world in general the fact that we, too, are not unaffected by that *joie de vivre* the poets rave about?

It can't be that buying a new hat hits him where it hurts most, in his pocket, because he can easily spend ten or even twenty times as much on a new tape recorder and it won't hurt at all.

Here's a thought for you. Why not try suggesting that *you* have a new tape recorder this spring, and *he* has a new hat!

If any of you girls imagine for one moment I'm suggesting we should all go hatless this year you can perish the thought. No man really likes wearing a new hat and it would be a pity to waste the money on something he doesn't really want, so what could be more simple than to end up the day's shopping at the milliner's? Well, the money was for a hat, wasn't it? This thing of straw and fur and feathers is a hat, isn't it? I don't see what he's got to complain about.

But make sure your tape recorder's in the bag first, dear!

## DO BIRDS TALK?

**I**HAVE often wondered if, when birds sing, their song means anything. Is their song a form of speech, or just an expression of happiness and wellbeing? Would a bird recognise his own voice if recorded?

Last summer I had the opportunity to test the latter.

Each evening a young blackbird sat in a tree at the bottom of my garden and, after a preliminary "tune-up," burst into song. And I mean burst. I've never before heard a bird put so much vigour and variation into its song.

One evening I set up my portable recorder in a shed beneath the tree.

I timed things nicely for, a few minutes later, the bird arrived and, after his usual preparatory remarks, put all he had into his song.

I recorded this for some five minutes. I then rewound the tape, placed the recorder outside, pressed the "start" button, and retired out of sight.

For a few seconds the bird sang a duet with his recording, then suddenly stopped. He gave a few nervous twitters, then dropped to the shed roof. From

there he flew to the fence—passing over the recorder in flight.

This trip he made, backwards and forwards, several times, in each flight dipping closer and closer to the source of his recorded song.

Finally he landed right beside the recorder and stood there, his head first on one side, then the other.

In fact, he did everything but stand on his head, twittering nervously all the while.

He seemed to be saying "It seems as if I've heard that song before." It's hard to think of a bird looking surprised, but I'll swear that this blackbird looked positively amazed.

When the recording ended he still remained there until I emerged from the shed.

Further replays on other evenings brought similar results—the only difference being that he landed beside the recorder earlier each time.

I still wonder if he recognised his own song or if he thought it was a fellow songster locked up in a very small box.

What do you think?

THOMAS SUTTON.

# Make way for the

# LADIES

Personality of  
the month.—4

Major EDNA COOKE

A new regular  
monthly feature

Edited by  
Vivienne Gooding

EVERY Saturday afternoon they stand in the High Street on the corner of my road. A pale girl, close in years to the beatniks in the coffee bar a hundred yards away, offers salvation through a megaphone to the indifferent stream of shoppers as they hurry by. Her companions thumb their hymn books; a thin, earnest young man adjusts his concertina and with a jingle from the tambourine the sound of their song rises above the busy, Saturday noise of this suburban High Street.

It's all so very familiar, isn't it? And in the evening those same young ladies will deliberately make for the least respectable of our bars and night haunts to sell their *War Cry* and to talk to anyone who wants to talk to them.

That is the Salvation Army as I knew it until Major Edna Cooke showed me into her comfortable sitting-room-office. I was surprised to find that Major Edna was a grey-haired lady of later middle age. Her eyes didn't burn with evangelical fire nor did she raise her voice above a scarcely audible whisper as she spoke to me. But her face had that calm serenity, almost an inspired tranquillity that I had seen before reflected in the faces of the monks at an ancient monastery in the West Country.

My mission of course was to discuss tape recording, but as we talked I felt myself being gently led into a strange, new world of personal faith and courage. I learnt that Major Edna and countless thousands of others like her serve the whole community by their example of "self-denial" to use their own phrase. They do not condemn us if we disregard them, yet they are always there if we need their help in any practical way.

Major Edna's responsibilities are roughly equivalent to a Church of England vicar. She conducts services in the Army church, she even officiates at weddings and funerals. I had no idea that it was possible for a woman to conduct a marriage ceremony until she told me.

As you might expect, all kinds of personal problems and troubles are brought to her for help and guidance. She rarely has to deal with the acute poverty that was all too frequent before the war, but instead she now has to cope with the more modern tragedy of the family without a home, the married couple being

evicted because a baby is about to arrive. Speaking of these things it was only too obvious that she felt the hurt suffered by these unfortunates as keenly as if she herself were in their place.

I found that the Major's tape recorder, a Regentone, was in pretty constant use.

At any one time she has a list of anything from twenty to forty names of people who are "shut-in," too sick or infirm to leave their homes. As she goes on her visiting rounds in her smart Austin 7 her Regentone goes with her and she carries recordings of specially performed hymns and recent services from her own church.

The only time she was at a loss for words was when she tried to explain the profound effect these recordings have on the people she visits.

"It's like opening up a window—drawing back a curtain for them," she said.

It so happened that she was about to make one of these calls later that evening, and when she invited me to go along I jumped at the chance.

Mrs. Webster turned out to be a very

sprightly, intelligent lady of eighty-eight. There was certainly no question of poverty, far from it, neither was there any obvious acute illness. No, Mrs. Webster was a very happily and comfortably settled old lady, looked after devotedly by her daughter and lacking only one thing in life—the ability to make the weekly visit to church that had been her regular habit for so many, many years. She could listen to a service on the wireless, of course, but that wasn't *her* church.

Major Edna plugged in her machine, pressed the playback key and the thing that this grand old lady lacked unfolded before her.

This was Major Edna at work; it was also one small use of a small machine successfully doing what nothing else could have done, quietly, efficiently and without fuss.

I should like to keep in my mind that picture of old Mrs. Webster, her lined face glowing with lively pleasure as the Major and I slipped out, she to her next call and I to my typewriter and more than a few private thoughts.



## CHILDREN'S CORNER

DID you all have a happy time at Easter? I hope so, because I did. I wonder if you went out into the country to see all the spring flowers coming up and the lambs playing in the fields? Did you go by car or did you go by train? If you went into the country and were very lucky indeed, you might have seen the cows being milked and the eggs collected from the chicken's nests.

It's very, very nice for those of us

who are able to visit a farm at Easter, but I'm sure that some of you weren't so lucky. Never mind, we can play a game and pretend we are visiting a very special farm and the man is going to take us round and show us everything.

First of all we must decide how to go. Shall it be by car or by train? Train noises are fun to make and you can shout out, "Right away, Guard!" just before the train goes puffing out of the station.

Do you suppose the dog will bark as you walk up the lane to the farm? I think he would, but it would be a very friendly bark and he would be

wagging his tail as you knocked on the door. Then you would have to thank the farmer for letting you see his farm, and off you would go with the dog running on ahead.

I'm not going to tell you all the things you would see, but you try to think of as many as you can. Don't forget the baby pigs I can hear squealing in the sty!

I wonder if you guessed that this is a game you can record on a tape recorder? If you do, it will be just like having a real day in the country every time the tape is played back, and if you tried very hard some of those animals will sound jolly real!

# EDUCATE AND INSTRUCT YOURSELF WITH THESE NEW PUBLICATIONS

THE trickle of books on audio and recording subjects has become a torrent and the newcomer to the hobby is particularly catered for by a number of volumes presenting the basic facts in easily-understood language. If anything, the danger has now developed that everything is now over-simplified. The main gap seems to be in the middle-comprehension range: books intended for the experienced amateur who is yet not an engineering expert.

A new edition has recently appeared of a book first published several years ago, written by Mr. Percival J. Guy, lecturer in recording in the BBC Engineering Training Department.

The book is **How to get the Best out of Your Tape Recorder**, published by Norman Price Ltd., and costs 8s. 6d.

This is a modest price for a reference book these days, but it is managed by producing it in stiff paper covers and by terse, economical writing, entirely devoid of space-filling "waffle."

Mr. Guy defines his task in these words: "This handbook sets out the basic theory of magnetic recording in such a way that those without scientific training can follow it with comparative ease. Those who have forgotten their elementary algebra can ignore the brief mathematical proofs which are included for completeness."

And that is the joy of this book: you can skip the parts you don't understand and still get a coherent account of the subject. It is so skilfully compiled that it caters for enthusiasts at almost every level of knowledge, assuming, of course, that they have an average dose of natural intelligence!

The chapters are broken up, typographically, into short sections, which gives a textbook appearance that may be disconcerting, but makes it easy to digest the content. There are 115 diagrams in the 128 pages, and they are extremely good and invaluable in presenting the facts. There is also a selection of photographs—not so good, because it is insufficiently representative.

There are chapters on such things as acoustics, microphones and balance and control, all very readable and all packed with good advice. The chapters on testing and fault tracing is the best thing of its kind that has appeared in print anywhere.

In case anyone remains in any doubt, I am recommending this book wholeheartedly.

\* \* \*

I also recommend a new work from America: **The Story of Stereo**, by John Sunier, one of the latest titles in the Gernsback Library. This again is available in a paper (or, to be accurate,

thin card) cover, but, at a guinea, is more expensive.

This is a lot for a 160-page production, but there is no other reason why stereo enthusiasts should delay for a moment in buying a copy. It is a very thorough and authoritative work. Mr. Sunier has been over the whole ground with meticulous care and he gives us a straight-forward account of all that has happened, and is happening.

He deals with the theory of stereo recording and reproduction, with the history of the development of stereo, and he writes a chapter each on stereo on film, tape, disc and radio. His final chapter deals with the technique of stereo recording—microphone arrangement and so on.

There is a wealth of informative diagrams and sketches and a few half-tone photographs which do not, however, reproduce well on the paper used.

Mr. Sunier takes an international view of all that has happened; there is no pretension that America has played the crucial part in developing stereo. He gives full credit to the efforts of firms like E.M.I. and G.E.C. and to individual pioneers like Blumlein.

Obviously, he is a stereo enthusiast, but he does not indulge in special pleading. He is content to let the facts speak for themselves. This is, in fact, a definitive work, easily the best thing of its kind to date. The bibliography alone is valuable (the author cites references for almost everything) and there is a first-rate index.

\* \* \*

A better index would have helped a lot in Mr. Wallace S. Sharps' new book, **Tape Recorder Manual** (Fountain Press, 21s.). I found it very difficult to decide in what logical sequence the author was trying to present his facts. After I had read the book carefully, I found it tricky to look up specific facts.

In which chapter does one find advice on recording out-of-doors? Chapter two. And recording birds? Ah, that's in chapter three. Similarly, sound effects are discussed in chapter one, but background sounds (such as a baby crying) in chapter three.

It is confusing. In addition to these defects in mode of presentation, I found that the book showed little originality in content or viewpoint.

It is illustrated with line drawings of recorders and equipment which many readers will recognise.

Presumably these drawings have been used, in preference to photographs, in order that identification of the manufacturers will not be possible. The point is lost on me; photographs are surely better able to provide the reader with the exact impression he requires.

This is a pleasant piece of book production, however, and the "dictionary of tape recording" included as an appendix is very useful.

D.B.

## Another in our regular series of articles introducing children to tape recording

IT is a cliché to say that we live in a world in which the old established patterns of education are under close scrutiny and some criticism. One would not dispute the fact that our children should have a good education, but this term unfortunately includes much that modern educational research has proved to be of little value.

Instead of cramming the child with facts and ignoring his individual personality and development of social responsibility, we have now reached a much happier stage where we observe the child in our midst and then ask ourselves: "How can we best give this child the chance to develop the powers that he has and that are as yet unknown?"

With this approach we employ many aids in our curricula planning. Schools' Broadcasts have been a very successful and worthwhile project for many years and are available in most schools today. Some schools have now included television, which is an excellent aid to teaching, and by the selective nature of the material shown an opportunity is given to the children for the development of a critical faculty towards this very potent entertainment and educational medium.

Radio is an accepted part of our way of life. It is one of the mass media all of which if accepted uncritically, have a stultifying effect upon the minds of the uncritical. The "Spoken Word" is the vehicle by which millions can now simultaneously be entertained or persuaded and the intrusion into our homes of this press-button technique makes it unnecessary for us any longer to entertain ourselves or even to converse. As a race we have a reputation for being monosyllabic but there is a danger now that we shall even lose our ability to be that.

I am responsible for the Speech Education of approximately 29,000 pupils in the schools in the City of Aberdeen. In addition there are thirteen specialist teachers of Speech and Drama. We have a programme which includes children's theatres, non-competitive festivals as well as the routine classroom work of this subject.

# The tape recorder is a powerful ally in child education

Classroom broadcasting by  
**CATHERINE  
HOLLINGWORTH**  
Superintendent of Speech  
Therapy and Training for  
the City of Aberdeen

The main purpose of this Department is to help every child to develop his language ability so that his method of communication will be a satisfactory bridge between himself and his fellows.

Self-confidence and language ability are so closely allied that one can scarcely say where one ends and the other begins. This language ability cannot be taught in an arbitrary manner; it is very personal and there must be adequate motivation for its improvement. Here, in the tape recorder teachers have a powerful ally if we will take the time and trouble to understand something of the technique.

Many of our schools possess tape recorders of their own and there are Ferrograph machines which are available from the Supplies Department for those less fortunate.

When I persuaded two of the infant departments to put on tape classroom programmes of songs, news items, stories, quizzes, etc., I did not envisage the many benefits that would accompany the experiment. The head teacher and class teachers in one of the schools have pointed out some of those. They mention the fact that this pre-recorded programme played over the classroom loud-speaker tends to have a unifying effect, and these young children become more conscious of belonging to a community.

They hear their own names in the news items and the birthday greetings and the voices of their own contemporaries, and no longer is one class the unit but the school itself tends to grow in importance as does the feeling of belonging to it.

The programmes give opportunities for discussion and criticism and gone is the unquestioning acceptance of the sound which comes from a box; for the children have taken part in school broadcasts and now knowing something of the difficulties, they take a much greater interest in all radio programmes. The parents also are interested in the contents of the fortnightly programme and this leads to discussion and interest in the home. These results were not the ones I was looking for when I introduced the work to the schools but they are important.

There has been the expected improvement in communication—in fluency and quality of speech; improved reading



Children of Kingswood Infants' School prepare a programme for the closed circuit broadcasting system which has been developed in various Aberdeen schools since last August. The BBC Scottish Home Service has twice broadcast extracts from these classroom programmes

technique is marked. The announcer's part is a coveted one and those young children of 6½ and 7 have shown surprising qualities of responsibility and awareness. The programmes which have been put on tape have all been class projects in which every child has participated. Not always the same child is chosen as the announcer.

## TAPE IN THE SCHOOLS

First of all, the content of the programme is discussed with the class by the teacher who is going to prepare it. With the assistance of the head teacher it is later recorded on tape and at an appropriate time it goes on the air as "The Kingswood Broadcasting Station" (Kingswood being the name of the infant school which first gave me the chance to put my ideas into practice). The children enjoy this work enormously and they offer many helpful suggestions.

In primary schools there is scope for other and different activities which can be pre-recorded on tape and similarly broadcast over the loud-speakers. Here the children are stimulated greatly to contribute as writers and there is much creative writing which includes plays, poetry and stories. If the school has a reputation for music the signature tune,

solo pieces or chamber music played by the children lend variety to the programme. The choir also makes a worthwhile contribution. It is safe to say that this type of work gives an opportunity to every child either to sing, play an instrument, act, speak or be responsible for some technical aspect of the tape recording.

Those primary schools which have included this project in their curricula, have experienced the same results as I have described in connection with the infant school except that for obvious reasons there is much greater opportunity with the older children to develop various techniques.

We have now begun to use the tape recorder in an attempt to present our own radio programmes and we have learned much from our mistakes.

Up to now I have concentrated on infant and primary schools only. In 1961 a beginning will be made in secondary schools. I am sure that when the value of this work with the older age groups is fully realised there will be many teachers willing to co-operate. At present many are interested but some are nervous of this unknown technique which helps oral expression and fluency, clarity of speech, graciousness of manner through the practice of interviewing and announcing, reading ability and the writing and editing of suitable material for radio; and which moreover encourages the children to be active and critical listeners to radio programmes.



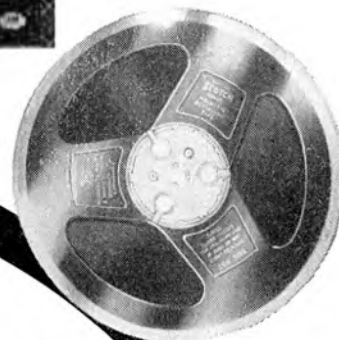
STANDARD PLAY



EXTRA PLAY



DOUBLE PLAY



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# A PORTABLE IN PARIS

MAKE YOUR  
OWN SOUND  
FEATURE OF  
YOUR HOLIDAY

By F. J. G. Hodge

**G**OING abroad for your holidays this year? It will help if you know the language—and what better way to learn a foreign language than by swapping tapes with someone living in the country you intend visiting?

If you have one of the new midget models—battery operated—you can make your own sound feature of your holiday. Ships hooting, jets whining, trains letting off steam, or coaches warming up. Whatever your transport there'll be plenty of atmosphere noises around your departure point and a record of these is an ideal starting point for your feature tape.

Your recorder will attract people, and that's your chance to get some "interviews" on tape. It's surprising what bits of useful information you can pick up from others who have visited your holiday resort before; they usually know the best cafés, local trips, places worth visiting and all kinds of tips can be yours for the taping. What's more you'll be able to refer back to the tape and make full use of them when the time comes.

Carrying a tape recorder can be a passport to places where you would not normally be allowed. Last year a friend took his recorder on the 'plane and, in addition to an interview with the pilot, he got the chance to go into the pilot's cabin and record from there. On our holidays, the recorder ensures us a good seat in the coach, because we always ask the guide if we can record his "talks." He usually says yes—and sees to it that we get a vantage point from which to record.

Everybody makes friends on holiday and your recorder can be used to record personal messages. If the recordings are particularly good, you can have discs cut from the tapes when you get home. Some of your recordings might include your own voices as well as those of new-found friends; in that case you can send copies of the discs to them—and so cement the friendship.

Record all those sounds which, while being "ordinary" to the inhabitants of the country, are unique and unusual to

## Another judge announced for Stuzzi Contest

**A**THIRD judge is announced for the Stuzzi portable battery tape recorder contest.

The new name is that of Elizabeth Cowley (seen right), a producer on the BBC "Tonight" team. Together with Mr. K. Short, Managing Director of Recording Devices Ltd., and the Editor of *Tape Recording Fortnightly*, she will choose the final tape for this brand new contest the prize for which is a five-day holiday in Paris.

First details of the new contest appeared in our last issue, with some hints on recording out-of-doors provided by Mr. K. Short whose company is making all the arrangements for the winner's trip to Paris.

The competition has been organised to encourage the use of battery portable recorders, and the judging will be based on technical ability and originality of composition for a five-minute feature tape recorded on this type of instrument.

The rules are simple. The contest is open to any bona fide amateur tape recordist and there is no entrance fee.

We want you to assume you are on holiday. Normally holiday makers send home picture postcards of the resort or country in which they are staying. Now

you. They will serve to refresh your memories of the happy times.

Most foreign countries have their own distinctive sounds. Many have their own customs and local festivals. Record some of these; you'll find them fascinating. Processions, fairs and religious gatherings you come across can all be taped.

One thing about a holiday with sound is that it isn't over when you come home. In fact, that's when most of the fun begins. You will find you have yards and yards of tape with all sorts of sounds on them, so the next job is to sort them out into some sort of order.

It's a good idea to play all your tapes through first and make notes of where to find the various sounds on the tapes. With this catalogue in your hand you can then plan what your finished tape will be like. Mark the tape and then cut each section as you need it. By degrees, your story in sound of the holiday will take shape, until finally you have a complete record of the highlights of your holiday.

If you are interested in exchanging tapes with people overseas there are a number of organisations which have names and addresses of prospective tape pals.

Make a change this year and get yourself a portable tape recorder for your holidays—you'll not regret it.



imagine you are sending home a tape as a sound memento that will give your friends and relatives a clear idea of your holiday centre.

Your imaginary holiday need not be abroad; you can devise a "sound" post-card to send to a friend abroad. The idea is to provide a clear picture in actuality, sound and narrative.

The holiday is of your choosing; just remember that it **MUST** include at least two of the sounds listed below.

Recordings at 1½, 3½ or 7½ ips may be entered, but to facilitate judging, only constant speed recordings will be accepted.

Entries must commence at the beginning of the tape and only one track may be used. No tape submitted must contain anything taken from radio transmissions or commercial recordings, or have been entered in any previous contest.

Every tape entered must be adequately packed and properly stamped, and addressed to "Paris Holiday Contest," *Tape Recording Fortnightly*, 7, Tudor Street, London, E.C.4.

Each entry must be accompanied by the form published below with details as indicated.

The following list of sounds is provided as a guide to the composition of your tape.

*Sounds of departure on holiday by land, sea or air.*

*Church bells or public clock striking, indicative of locality (e.g., Big Ben, Notre Dame, or your local Town Hall).*

*"Atmosphere" sounds (e.g., market cries, continental cafe music—zither).*

*Typical outdoor sounds of city, country or seaside life (e.g., traffic, farm animals, children playing).*

Name (block capitals) .....

Address .....

.....

..... Age .....

Title of entry .....

Duration of entry ..... Speed .....

Recorder used .....

# British Amateur Tape Recording Contest

# International Recording Contest (CIMES)

The closing date is June 30. There is still time to prepare and submit an entry. Entry forms and rules can be obtained from 7 Tudor Street, London, E.C.4

**Norman Paul, winner of the 1960 British and International Contests, offers last-minute good advice as a record number of enthusiasts prepare the tapes that will represent British amateur recording in 1961**

## “Nothing slipshod will do!”

**H**OW is your entry going for this year's Amateur Tape Recording Contest? Remember the closing date for the National Contest is June 30.

Maybe you are already well ahead with it; but, even if you haven't yet made a start, there is still time.

First of all, you must decide in which class you are going to enter. There are seven classes—Compositions, Documentaries and Reportage, Music or Speech, Actuality, Technical Experiment, Club Section, and of course, the Schools Section.

The Composition Section is mainly fictional material and covers plays and dramatic works. Documentary and Reportage are accounts of true happenings presented in dramatic form. Music and Speech comprises instrumentalists, short stories or poetry readings. Technical Experiment caters for those interested in music concrete and similar ventures. Actuality, as its name implies, embraces recordings of unusual sounds where you had the good fortune to be present with your recorder when the event took place. The Clubs and Schools Sections are for group, as distinct from individual, entries.

Before you start any recording at all, however, a word of warning! It is absolutely essential to ensure that the material you propose using is free from copyright. The use of any copyright material in any form is not only likely to get you into trouble with the holder of the copyright, but will, in all probability, debar your entry from the Contest. This also applies to background music and sound effects, no matter how short the duration.

This is a point to watch very carefully. It is far better to create your own original material if you are telling a story, recording a play, or playing music. If this is not practicable, then choose something where the copyright has expired—generally fifty years after the author's death; but, in any case, always check up with the publishers of the work in question. If you simply *must* use something which is covered by copyright, then obtain the author's or his agent's permission—and you will have to produce documentary evidence that you have done this when you submit your entry.

Now, with regard to the preliminary work, make sure that your recorder is in tip-top condition and is giving the best performance of which it is capable. Remember, “second bests” are a waste of time. It's that little extra effort which may well get your entry through the preliminary eliminations and into the batch of final selections to be heard by the panel of judges. *Nothing slipshod will do!*

How to set about this? First of all, check your recorder thoroughly. Is the speed right? And, talking of speed, whatever you are recording, whether it be music or speech, I do recommend that you use the 7½ ips speed. Don't forget it is quality that counts and, from this angle, the faster speed is more satisfactory.

It may be, however, that you only have the 3½ ips speed. Don't let this deter you. You have just as much chance of success. My point is merely that, if you do have the faster speed, don't let thoughts of the cost of tape and such-like prevent you using it. Whatever speed you use, ensure that your machine is running correctly at that speed, and is free from wow and/or flutter.

Make sure, too, that the recorder is not picking up hum. Believe me, there is nothing more infuriating. I have heard many good

**Norman Paul, winner of the 1960 British and International Contests, offers last-minute good advice as a record number of enthusiasts prepare the tapes that will represent British amateur recording in 1961**



The author interviews singing star Cliff Richards whilst collecting material for the Hospitals' Broadcasting Service and Blind Circle

recordings spoilt by an incessant hum in the background, ruining what might otherwise have been a good recording.

If your recorder mains lead is fitted with an earth lead, see that it is connected to a three-pin plug. It is asking for hum trouble to use a two pin plug and leave the earth lead unconnected. If the machine has no earth lead, then make sure that the plug is inserted into the mains socket the right way round. A simple reversal of the plug often cures mains hum immediately.

Another hum culprit is the microphone. Carefully check the lead to see that it is properly screened and connected.

Your recorder heads need attention, too. They should be bright and shining. Clean them with cotton wool wrapped round the end of a matchstick and dampened with methylated spirits. On no account use any form of carbon tetrachloride. You may do damage.

Failure to clean the heads may mean that minute particles of iron oxide are sticking to the surfaces and will result not only in a poor recording, but also in incomplete erasure of a previous recording.

This may seem elementary advice, but it is surprising how often this simple precaution is ignored.

I was fortunate enough to be present at Radio Hilversum last year when the International Jury were judging the tapes and, believe it or not, one otherwise excellent tape had to be rejected because, right at the end of it, there was an incomplete erasure and a previous recording suddenly came booming through. It's amazing to me that the contestant hadn't listened to his tape before sending it in.

Make sure that your recording and erase heads are spotlessly clean. Another good tip is to demagnetise both heads with a defluxer. This will go a long way to eliminating unwanted background hiss on the tape.

Now, with regard to the actual recording, see that the room in which you are recording is acoustically as perfect as possible. Too

little or soft furnishings will produce a hollow effect, while too much will mean a dead recording. It's a matter of experimenting.

Microphone placing is important, too. Supposing you are recording a singer accompanying himself on a guitar, it is essential to get the right balance between the voice and the instrument, so that the one does not overwhelm the other. Again, the correct positioning can only be achieved by constant experiment. You may have to do the same recording twenty times or more before it sounds right, altering the position of the performer or the microphone on each take.

This may sound tedious, but, believe me, it is infinitely worth while and, as far as the Contest is concerned, may mean all the difference between success and failure.

If you are entering a play, remember there is the world of difference between recording a play being performed on the stage, and recording a play solely for the medium of sound. It is not the slightest use planting a microphone in front of your actors moving about on a stage and expecting to achieve a good production *in sound*.

This may seem obvious, but I have known amateur recordists who have attempted to do just this, and have been surprised and disappointed at the meaningless sounds and silences which have come over on playback.

No—sound drama is a medium of its own. The generally accepted method is to group your actors round the microphone and record the production from start to finish, mixing in effects and background music through separate microphones and inputs.

Personally, I prefer to go a step further. I divide up my script into sections and use the microphone rather like a film camera. Sometimes each section only lasts a few seconds, but it enables both actor and technician to concentrate fully on that particular section without having to worry about what's coming next. It also has the advantage of enabling you to set up your microphone and place your actors in the most suitable positions for that particular section.

Suppose, for example, you have a court sequence sandwiched between two open-air sequences, the average amateur with his limited equipment would find it more than a little difficult on a straight run-through to change from the hollow sombreness of the court to the spaciousness of the open air. Whereas, if his script were divided into sections, he could record his court sequence quite separately from his open air sequences and have all the time in the world to rearrange his actors and microphones to the best advantage.

It doesn't matter, of course, in what order you record your sections. You can work away at each one until you are satisfied with the result, if necessary over a period of days, or even weeks. Don't worry about the actors! They will be quite happy. I have done scripts before now where they haven't really known what the story is all about, and have consequently listened to the first playback of the completed production with great interest.

It may well be that, by the time recording is over, you will have over fifty lengths of tape, all to be spliced together in their correct order—and this is where the art of editing comes in. Make sure that you cut out all unwanted clicks and plops and that each section of tape flows naturally into the next.

(Continued on page 26)

**H**AVE you ever secretly wished you could record a famous prima donna singing specially for you with full orchestral accompaniment, chorus and deep-throated baritone partner? What a thrill that would be; a thrill which I came as close to as I shall probably ever get, last month.

Verse after verse of song flowed from the quivering throat of my Central American artiste as she dominated both her partner and the fifty or sixty other voices in the hall. If her melody was strongly reminiscent of a Continental police siren with fugal variations I was in no position to complain, for I was recording in the London Zoo at Regents Park, at the express request of Mr. A. Worsley of Kingston.

Thank you for your letter, Mr. Worsley. I wondered myself how I should get on, recording at the zoo. For the owner of a battery portable machine it's one of those subjects which is so simple and so obvious that it may well get overlooked. I don't mean that recording the captive wild life is simple; far from it. If the enthusiast feels he has an unfair advantage over the animals and birds, he is deluding himself. They may be imprisoned behind steel bars, unable to escape either him or his microphone, but it's not just a matter of strolling up, casually recording as much as one wishes and then passing on to the next object of interest.

I just stopped myself in time from saying, "But remember, these animal are only human"! Human? No, they don't belong to the species "homo sapiens" which means that they must stay on the undignified side of the bars for ever. But, however confined each individual creature's life may be, it is lived out in a way to suit the prisoner, not the spectator, and if anyone is going to look and feel embarrassed it will certainly not be the occupant of the cage.

Why should the crane, whose trumpet-like call brings you half-way across the gardens, repeat his performance just because you stand before him with microphone poised and finger on the modulation control? He won't, but he'll stare fixedly at you out of his inscrutable, beady eyes as he thinks his private and unmentionable crane-thoughts until, thoroughly discomfited, you wander away only to hear his fanfare of triumph in the distance.

Lions are different. Lions, like church organs, can be relied upon to produce sound in large volume, so off to the lion house fifteen minutes before feeding time. The great cats are in fine voice, and the walls of the building are almost bursting with noise. But once inside

# I TOOK MY RECORDER INTO THE LONDON ZOO

there's something very wrong. The roars and snarls are terrific, but so is the general hubbub of conversation as the visitors stand in terraced, chattering ranks awaiting the daily exhibition. Whatever other considerations moved the designers of the lion house the acoustic properties were blissfully ignored, or was that rolling echo built into the fabric to accentuate the awe-inspiring power of a dozen majestic, feline throats? This will not be a recording of lion as it might be heard in the bush; it will be the sound of feeding time in the lion house of the London Zoo, with almost as many human as animal noises on the tape.

\* \* \*

Many animals and birds are mute for the greater part of the day, and some make sounds so rarely that to capture them with the recorder would be a great achievement. It would also call for a specialised interest in the subject together with a great deal of time and patience at one's disposal. Spending a day at the zoo to obtain as many and as varied a selection of recordings as possible, one must concentrate on the more voluble inmates; so the parrots might be the next choice.

Unfortunately, all the more familiar kinds of parrot have to be housed indoors during the winter and, as with the lion house, the forced acoustics of the building resulted in unimpressive recordings.

There were the squawkers and the talkers, birds sliding down the swing

rails of their perches as they rattled and pecked at their chains, but my prize find was my "Amazona Aunturnnalis Salvini". Is Salvini not a real trouper's name in the best operatic tradition?

As soon as she spotted the microphone she drew herself up on her perch, threw out her chest and sang. No bird song this, but human, if discordant, melody. She sang and sang and sang, with distinct and very proper pauses defining each verse as her pale blue head beat out the time. I had to leave her after filling a three inch tape, and as I turned to walk away her song changed to screeches of frustrated anger which might well have issued from her human counterpart under the same circumstances. She was furious at being ignored in the middle of her performance—or was it only the beginning?

\* \* \*

One of the most delightful places in the zoo, and the one in which I found both the greatest interest and the greatest challenge was the tropical house in which are kept the humming birds. This is like nothing I have ever seen in any zoo before.

There are no cages, no bars or barriers. Entry is through two pairs of double swing doors with a bare, uninspiring safety lock between, but once through the second pair of doors the visitor is in a tropical fairyland of exotic splendour. At first one is only aware of the two banks of twining vines on each side of the long, open hall; climbing, clinging plants slashed with brilliant colour where

*DENYS G. KILLICK combines the roles of explorer, experimenter, artist, teacher and roving reporter in this exciting series.*

*Suggestions are invited for subjects he can tackle and describe in future issues.*

**ANOTHER ARTICLE IN  
OUR SERIES OF SPECIAL  
ASSIGNMENTS FOR  
DENYS G. KILLICK**

**Inside the lion house the acoustics were unsuitable; outside (right) the cats seem disinterested**

their vivid flowers push out from between the mass of tangled, green leaves. Then suddenly like a flash of iridescent fire a tiny creature hurtles through the air, hangs suspended in space for a moment only to dart back in the foliage once more.

What a pleasure to find that the roles of captive and captor are reversed, for the delicate humming birds are free to fly where they will inside this tropical house, but the public are confined to a gravel path running down its centre. The hum of the humming bird is produced by the rapid vibration of its wings as it hovers apparently motionless in the air, but it hangs there for only a second or two before darting off at great speed. What a challenge to the man with the microphone! An hour of patient waiting and watching produced one of the shortest recordings I have ever taken, but I shall regard it as one of my prized possessions.

I had to force myself to leave the Blue-breasted Sapphire, the Yellow-backed Sunbird and all the other dazzling inhabitants of blue, green, purple and red. I could easily have spent a whole day in that house, listening to the trickle of the water in the rock-pool, fascinated by the constant flash and dart of living, metallic colours.

\* \* \*

To break the spell I went deliberately from the minute to the gigantic, from the sublime to the ridiculous. Once again my subject was not confined, but this time instead of chasing a minute bundle of fiery fluff I all but lost my microphone as a heavily breathing elephant's trunk damply explored both the recorder and I in search of buns. She was a staid, stolid old creature as she stood massively on the walk, with her keeper gently holding her by the ear.

All things edible offered to that flexing trunk were immediately conveyed to her mouth, although she had been trained to hand pennies to the keeper. Every time he took one from her she gave some odd little grunts of pleasure, huffed wetly



down her trunk and made another quick grab at the microphone, making me beat a hasty retreat for a couple of paces.

We played this game very amicably for five or ten minutes when we parted on the best of terms, I with a selection of genuine, close-range elephant noises, the keeper with a pocket full of coppers and the dear old lady with what must have seemed to her great bulk no more than a tiny morsel. This morsel, however, included all the available animal fodder, not to mention my own tea!

\* \* \*

The bark of the sea-lion is a very distinctive sound. Although truly a bark it could never be mistaken for a dog, and it's a noise I always associate myself with childhood visits to the Zoo. I was particularly pleased to get a good recording of these calls, and as the herring-gulls in the neighbouring aviary were in a squabbling mood their cries in the background lent an authentic atmosphere to the tape.

I was happy with this episode because one is recording in the open again and conditions do simulate those to be found in nature it is only necessary to avoid the interpolation of human voices to achieve a recording which might well have been taken in the animals' natural habitat.

Some animal sounds, although perfectly genuine, may be meaningless on playback. For instance, one item on my collection of tapes from the Zoo has been identified as the noise of an elderly, whiskered gentleman drinking soup. Who

is going to believe that in fact it is the sound of Lorna, a friendly two-ton rhino, sucking grains of sugar off my hand?

One sound which could never be mistaken is the bellowing roar of an antlered stag. This throaty signal of defiance can usually only be heard during the autumn mating season, but I was lucky enough to record it. It's not difficult to imagine that majestic sound rolling through the timbered Scottish mountains as this magnificent beast warns off some interloper from his herd of hinds.

Such day-dreams had to be forgotten, for the early dusk of winter was rapidly bringing the day to a close. It will take me a long time to edit the nine full tapes I brought away from the Zoo, but every time I listen to them I shall smell the scent of the cattle sheds and see the cautious, watchful lights in a hundred wild creatures' eyes. I always seem to have to conclude my stories by saying that I have only touched on the surface of the subject, but never was that more true than of the recordings at the London Zoo.

Thank you again, Mr. Worsley, for your most interesting assignment. I have an idea that I shall be a regular visitor to Regents Park in the future. My next assignment will be—where? Have you written yet to suggest a subject for recording? If not please do so now because I'm ready and waiting to be off again, recording specially for you.

SOMETHING was wrong. I awoke with a start, rubbed the sleep from my eyes and peered through the half-gloom at the clock. Five-twenty a.m., and my husband was nowhere to be seen. For a few moments I tried to make my mind work rationally. Was there a good, sound reason why he shouldn't be in bed asleep at this unearthly hour of the morning? I turned over, but when the clock-hand crawled round to the half-hour and there was still no sign of Bill I decided to investigate.

I slipped into my dressing-gown and called his name softly. No sound disturbed the still, eerie silence. I began to get a little worried.

Was he lying in some corner, unable to call for assistance? I looked round the house, but without success. The thought that perhaps he had left me and gone home to father did cross my mind, and there's no telling just how far my imagination would have travelled, had I not noticed something amiss in the living-room.

Not only had my husband disappeared—so had our little portable tape recorder!

"Bill!" I shouted, "What on earth are you playing at? Do you realise what time it is?"

# THE NIGHT I GOT THE BIRD



Determined to give him a piece of my mind, I stamped into the kitchen to see the back door swinging gently in the breeze and Napoleon, our labrador, staring intently at something through the open doorway.

Then I saw that the "something" was Bill. I couldn't really miss him. His bright yellow dressing-gown (which he modestly describes as "mustard") stood out against the bushes like a navvy in a ballet class. He was absolutely still, like something petrified.

I told Napoleon to get back into his basket. With microphone held aloft and tape recorder between his feet, Bill was so absorbed in his task he didn't hear me coming down the path.

"Hello," I said in my best chatty manner.

He swung round surprised, and his face broke into a sheepish grin, as though he had been caught raiding the pantry.

"Hello."

"Tell me," I said, looking around, "do you come here often?"

He looked at the microphone in his hand and nodded. "I suppose it does seem a little odd, finding me out here like this, but I can explain."

"Well, it is rather a nice morning," I told him, pulling my gown tighter. Indicating a couple of large boulders, I added "Shall we be seated?"

When I was as comfortable as was possible, I inquired, "What are you supposed to be doing anyway?"

"I'm listening, actually."

"What for?"

"SYLVIA ATRICAPILLA."

"Who's she?"

"It isn't a person, my love, it's the little blackcap."

I rose, mystified. "I'm sorry, this isn't going to be my day, I can just tell. I think I'll sneak back into bed and pretend it never happened."

"Wait," said Bill, rising too. "I don't think you understand. Do you remember Tommy Brown?"

## Armstrong Quality Tuners

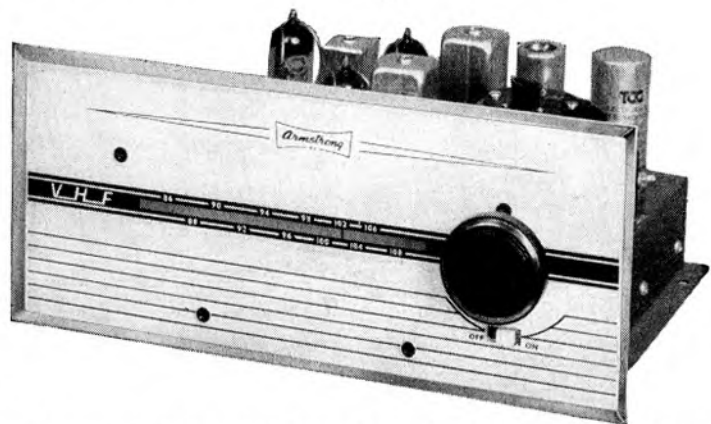
### MODEL T.4. (illustrated) 19 GNS.

A high fidelity VHF tuner designed for operation with any amplifier or tape recorder. Incorporating many features normally found only in the most expensive tuners it represents outstanding value at its price. The T.4 is completely stable with no trace of drift and automatic frequency control provides easy tuning. An attractive cabinet in polished wood (price £2 16s. 0d.) is available as an optional extra.

- Self-powered ● Full VHF band (87-108 m/cs)
- Automatic frequency control ● Cathode follower output
- Variable output 0-500 mV. ● Multiplex output for stereo radio
- Separate 75 and 300 ohm aerial inputs.

### MODEL ST.3. Mk.2. 27 GNS.

This new new AM/FM tuner is the successor to the well tried and successful ST.3. Improvements in design and a considerable reduction in size make the new tuner even more attractive than its predecessor. It includes all the features of the T.4 Tuner and is similar in styling. The AM section covers the long and medium bands and includes a miniature bright-line indicator for easy tuning.



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## Jean Rogers relates another of her amusing tales



"Vaguely," I replied.

"Well, he's an ornithologist, you see, and he was. . . ."

"An ornithologist?" I wasn't really at my best at this hour of the morning.

"He studies birds. Only the other day he was telling me about the blackcap. Very interesting really."

This indeed was strange. As long as I had known Bill, he had never shown the slightest interest in birds—of the feathered variety; so I let him continue.

"You see," he said, with an air of authority, "the blackcap is very rare in this part of the country—only a handful of cases have been recorded in the last few years."

I understood now. Someone had told my husband some useless piece of information which had captivated him no end, and naturally he had to be the next person to discover the whereabouts of the blackcap.

"It's a little greyish brown, greyish white bird with a black tuft on its head," he was saying, "and I'm sure I saw one about here somewhere."

I tried to humour him. "How can you be sure?"

He beckoned me closer. "It nearly always rests in the shelter of a thicket, or a leafy tree, and although it is very small, it has a very loud and beautiful song."

Thickets and leafy trees abounded us, but that was hardly justification for suggesting that the bird was around.

"So you really think it is worth getting up at 5 o'clock for?"

"Of course, if I can capture its song on the recorder, I'll really have achieved something—it's the finest songster of all British birds."

I realised now that we were going through the phase of bird-song-recording. I shuddered at the thought of what the future might hold. Heaven help us if Bill ever met up with a Himalayan explorer. I could imagine my trudging through snow with a tape recorder strapped across my back, in search of a Yeti.

Before I had a chance to ask him how he would recognise the song of the blackcap, he grabbed my arm and jerked me back to reality. "Did you hear that?"

"The train whistle, you mean?"

"No, silly. Look, you take the recorder, and follow me." He moved forward with the microphone and, like a lamb to the slaughter I trailed behind with the recorder, over the fence and into the "jungle" area, beyond our garden, belonging to Farmer Brown.

"Bill," I told him sharply, "we can't go in there!"

"It'll be all right, so long as we keep quiet."

"But we're trespassing! This is private property!"

"In reply, he held his finger to his lips and said, "Ssh." He gave a tug on the mike cable and I followed. If I had been properly dressed, it might not have been so bad, I do not recommend night attire for deep penetration of jungle territory.

"Down," Bill said suddenly, and I flopped to the ground, expecting to hear a dozen or so native spears whiz past my head. "We'll wait here for a minute or two. I thought I heard it just now. Keep very quiet."

The minute or two seemed to stretch into hours and all I could hear was the combined noises of the creepy-crawly denizens of the forest and the occasional gust of wind.

He suddenly looked up at a group of birds, flapping overhead, and studied them. "I wonder what kind these are?"

"Vultures, probably," I said heavily.

Bill actually smiled. "I'm going to move forward now. When I give you the signal, a vertical wave of the arm, start to record, and when you see a horizontal wave, stop. Got it?"

I nodded, surprised to find myself a party to such foolishness, and watched him move forward until he was almost completely hidden from my view by bushes. I sighed, resigned to my fate, finger ready on the button. After a long wait, I saw him smiling and holding his finger to his lips again to ensure absolute silence. Zero hour was approaching.

Then horror of horrors? Out of the undergrowth bounded Napoleon and, as soon as he spotted me, he came rushing over and began to lick my face. "Get back home, you big soppy brute!" I said in a stage whisper, and tried to push him away.

Out of the corner of my eye I saw Bill's signal, so I pressed the button and continued to coax Napoleon to go back to his basket. The dog thought this was great fun and began prancing up and down and playing with the microphone lead. Finally, I grabbed a piece of branch and threw it hopefully as far away as I could. Napoleon ran after it, while I carried out Bill's commands to the letter. His signals came in one and two minute bursts and, by the time there

was only about fifty feet left of the tape, I felt I was becoming most adept, even if I was now perspiring freely.

Of Napoleon there was no sign and I breathed easily again.

A rumble of thunder warned us of the possibility of rain. I looked hopefully at Bill, who was gazing in wonderment at the sky. We both stood up, and nearly jumped out of our skins when someone close by bellowed "Who's there?"

At that moment the heavens opened up, and we were slap-bang in the midst of the monsoon season. We didn't wait to answer the question, but as I turned away I thought I saw the foreboding figure of Farmer Brown's gamekeeper standing near, with his shotgun at the ready.

The noise of the rain and our stamping through the bushes almost drowned his stentorian voice, but I'm sure I heard the sound of a shotgun—but I suppose it could have been thunder.

Back home, over breakfast, Bill remained strangely quiet. Eventually he suggested it might be a good idea to hear a playback of the tape before he left for the office. "After all," he added lightly, "it isn't every wife that can assist in her husband's hobby."

I listened to the recordings in silence, my pride slowly disintegrating.

All right—so I misread Bill's instructions. It could have happened to anyone, although I must admit we did collect a most amazing selection of noises. There's the distant moo of a love-sick cow, the whistle of the wind through the trees, and the 5.58 a.m. milk train letting off steam. The old clock in the church tower, striking six, has for accompaniment the rather obnoxious snorting of Farmer Brown's hogs. In contrast, we have Bill muttering, "Well, Napoleon, you old scoundrel, what are you doing here?" and an irate gamekeeper in full war cry. We even managed to record some sheep, although I haven't the faintest idea where they came from. Of the little blackcap, there wasn't a twitter.

I think I'll take up washing and mending. There must be something I can do right!

# Equipment Under Test

IN these days of mass production, with the HI-FI bandwagon loaded with as mixed a collection of quality and rubbish as one could find, people in day-to-day contact with electronic equipment tend to become wary of glossy exteriors, because closer, quick examination can so often reveal carelessly made insides, which proves to be the case with distressing regularity.

Occasionally, however, the exception is discovered and a feeling of pleasant anticipation engendered by the first impression, develops, after more thorough investigation, into a glow of approbation for a job well done. I'm pleased to say that these particular tuners fall easily into the latter category, and should satisfy the most discriminating purchaser, who will, I venture to predict, receive his full moneysworth. In both appearance and performance, they would enhance any HI-FI installation.

Both units are assembled on strong

## The Armstrong Tuners Models T4 and ST3 Mk2

steel chassis, which have welded corners for additional strength and rigidity and have been anodised to prevent rust or corrosion. The exteriors are finished in bronze-hammered stove enamel, and a white-enamelled steel plate is bolted on to the front as a backing plate for the dial, which is illuminated by one lamp on the T4 and two on the ST3 Mk 2.

The dials consist of oversize plastic panels with the markings on the back in ivory and brown, the pointer travelling behind the dial. Frequency markings are surprisingly accurate for pre-calibrated assemblies.

The large size of the dial panel makes it possible to mount it inside or outside a cabinet. The home constructor, therefore, making a cabinet of his own design,

need not worry too much about obtaining a perfect finish on the dial cut-out, which is most helpful to the less-experienced woodworker.

For those who prefer a professional finish, the manufacturers supply an attractive cabinet for the T4 Tuner for an extra £2 16s.

The general design, and layout of components (which are of good quality throughout), is obviously the result of careful planning based on long experience. This planning has resulted in compact but uncluttered units which are very satisfying in appearance, particularly when viewed in the light of possible servicing and maintenance. This may be carried out without having to untangle any of those exasperating "rat's nests" of wiring with which the serviceman or experimenter is so often faced. The workmanship generally is very good.

Another equally important point is that clean, logical layout invariably means stable, reliable operation and such is proved to be the case with both units.

Both units incorporate their own power supplies for AC mains, 200 to 250 volts, 40 to 60 cycles per second, mains voltage adjustment panels being easily accessible on the tops of the mains transformers. Consumption of the ST3 Mk2 is 40 watts, and the T4, 26 watts.

"Contact-cooled" metal rectifiers supply the DC HT voltage, which is thoroughly smoothed by a resistance-capacitance network resulting in a virtually inaudible hum level. Valve and circuit details for each unit are as follows.

\* \* \*

### MODEL T4 (VHF/FM ONLY)

Full VHF Band II (87 to 108 Mc/s), is covered, signals from the aerial being fed via an IF rejector circuit to a grounded-grid triode RF amplifier stage ( $\frac{1}{2}$ -ECC85), to give good sensitivity, then to a triode mixer/oscillator ( $\frac{1}{2}$ -ECC85), with a triode reactance valve ( $\frac{1}{2}$ -ECC85), to provide Automatic Frequency Correction (AFC), which prevents the receiver from drifting slowly off tune when it is set to within  $\pm 400,000$  cps of the frequency of the required station.

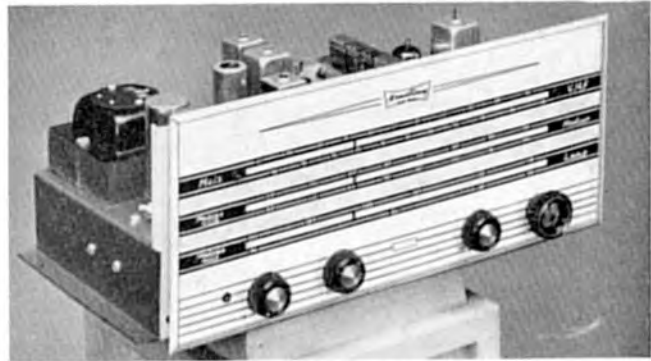
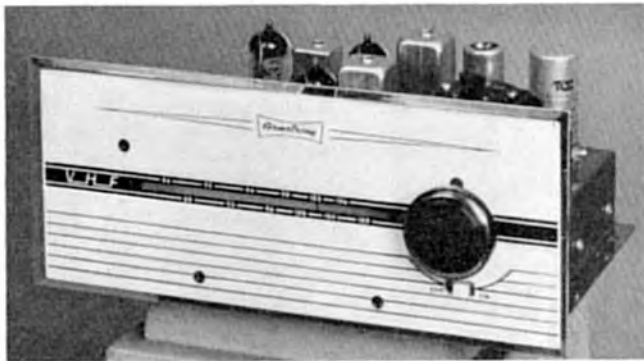
The signal is then amplified by an Automatic Volume Controlled—(AVC)—pentode IF stage (EF89), and fed via a pentode (noise) limiter (EF80), to a double-diode balanced ratio detector (EB91), from which the audio signal is obtained.

This is passed through the volume control, which varies the output from

### COMPARATIVE SPECIFICATIONS

	T4 (FM Only)	ST3 Mk 2 (AM/FM)
Price ... ..	19 guineas	27 guineas
Supplies ... ..	AC mains, 200-250 volt. 40-60 cps	As for T4
Frequency coverage ...	87 to 108 Mc/s (Band II)	87 to 108 Mc/s and Long and Medium Waves
Valves ... ..	2 x ECC85 (double triodes) one EF89 (pentode) EF80 (pentode) EB91 (double diode)	2 x ECC85 (double triodes) one ECC83 (double triodes) ECH81 (triode heptode) EF89 (pentode) EB91 (double diode) DM70 (indi- cator) OA81 (crystal diode)
Sensitivity ... ..	8 microvolts for 20 dB quieting	(FM) 8 microvolts for 100 millivolts output at 22.5 Kc/s deviation (AM) 5 microvolts for 100 millivolts output at 30 per cent modulation
Intermediate Frequency	10.7 Mc/s	(FM) 10.7 Mc/s (AM) 430 Kc/s
IF Bandwidth ... ..	220 Kc/s at 6dB down	(FM) 200 Kc/s at 6dB down (AM) 6 Kc/s at 6dB down
IF Rejection ... ..	56 dB	(FM) 56 dB
AFC operative over ...	$\pm 400$ Kc/s	(FM) $\pm 400$ Kc/s
Aerial impedance ...	70/80 or 300 ohms	(FM) 70/80 or 300 ohms (AM) not critical
Output ... ..	0 to 0.5 volt at 600 ohms	0 to 1.0 volt at 4,000 ohms
Overall depth: ...	9 in.	8 in.
Panel size: ... ..	10 $\frac{1}{2}$ x 4 $\frac{1}{2}$ in.	12 $\frac{3}{8}$ x 5 $\frac{1}{2}$ in.
Weight (Nett): ...	6 lb.	9 lb.
Mounting: ... ..	Horizontal or Vertical.	





The Armstrong Model T4 (VHF/FM only) tuner (left); and the Model ST3 Mk.2 (AM/VHF-FM)

0 to 500 millivolts, to a triode cathode-follower stage ( $\frac{1}{2}$ -ECC85), so that the quality of the output is virtually unaffected by the type or length of cable used to connect the tuner to an amplifier or by the input characteristics of the latter.

The nominal output impedance of the Tuner is 600 ohms.

Sensitivity of 8 microvolts for 20dB quieting is claimed, which, translated for the non-technical, means that even a fairly weak signal will provide almost noise-free audio output, and the bandwidth of the unit (220,000 cps at 6dB down), is such that even the highest audio frequencies are not attenuated and full justice can be done to the BBC high quality FM transmissions.

\* \* \*

#### MODEL ST3 MK2 (AM/VHF-FM)

This is really two receivers in one—a normal superhet for long and medium waveband coverage (1053 to 2000 metres and 187 to 570 metres), which is used as an IF amplifier when the VHF section of the set comes into operation. The necessary circuit changes are effected automatically when the VHF position of the bandswitch is selected.

For AM reception, on long and medium waves, a ferrite rod aerial is incorporated, and the received signals are passed to a triode-heptode frequency changer (ECH81), then via a pentode first IF amplifier (EF89), and a triode second IF amplifier ( $\frac{1}{2}$ -ECC85), to a crystal diode second detector (OA81), which provides the audio signal and the AVC bias voltage which is applied to the ECH81 and the EF89.

A tuning indicator (DM70), operative on AM only, completes this section.

On FM, signals from an external aerial are fed to an RF amplifier ( $\frac{1}{2}$ -ECC85), a mixer ( $\frac{1}{2}$ -ECC85), and an AFC circuit ( $\frac{1}{2}$ -ECC85), which is the same as the first part of the T4, the output from this section being then fed into the ECH81 in the AM circuit, but a balanced ratio detector (EB91), is now substituted for the crystal diode detector. AM or FM IF transformers in the anode circuits of the ECH81 and EF89 become operative according to the band in use.

Sensitivity claimed is 5 microvolts for 100 millivolts output (L and M waves), and 8 microvolts for the same output on FM.

The audio section, which is common on all bands, takes its signal from the

appropriate detector and consists of a triode amplifier ( $\frac{1}{2}$ -ECC83), connected in an "anode follower" (negative feedback), volume control circuit, which minimises distortion, particularly at low volume levels, and this feeds a triode cathode follower ( $\frac{1}{2}$ -ECC83), as in the T4, the output level in this case being variable from 0 to 1.0 volt. (Nominal output impedance is 4,000 ohms.)

All of these arrangements are based on well-tried, modern circuitry and have

By

### Alan Beaument

obviously been designed to give the best possible results without critical adjustments having to be made by the user.

For FM reception, both units have connections for either 70/80 ohms coaxial or 300 ohms flat-twin feeder, the ST3 Mk2 also having the usual aerial and earth connections for long and medium waveband reception, in addition to the ferrite rod aerial.

Co-axial sockets are provided for audio output and Multiplex FM Stereo adapters, ready for if and when the BBC begin this type of transmission.

All connections are clearly marked and the necessary plugs for aerial and output leads are provided with the units.

Controls on the front of the FM unit are simple—Tuning and on/off switch. The gain control is on the rear of the chassis. On the front of the AM/FM unit there are (L to R), the on/off switch, gain control, bandswitch and dual-speed tuning control. Brown plastic knobs, with gilt trim, are supplied for all controls.

Both units are quite straightforward to use—no fiddling required, just switch on and tune. The results, on the instruments supplied for test, were very satisfactory on all bands, and selectivity and sensitivity were adequate for all stations of any programme value.

Frequency stability on the VHF bands, from switching on, is also good, provided that one tunes correctly to the centre of the section of the dial over which the station is received, otherwise the AFC circuit cannot function properly, and "drifting" will result.

Sensitivity on VHF was better than expected. Potential users living within 20 miles or so of an FM station need have no worries about putting up special aeriels, as sensitivity is such that four feet of wire hanging from a shelf in the reviewer's workshop proved adequate

to receive not only BBC programmes, but also VHF transmitters operating in cars over thirty miles away, with hilly country in between!

However, do bear in mind that the odd bit of wire is never a really satisfactory substitute for a proper aerial, which will improve the performance of any receiver, mainly by giving better signals in proportion to noise, on any wavelength.

As far as audio quality is concerned, there is little to be said. Both units were very good indeed. Further comment superfluous!

Nothing is perfect, and a few mechanical complaints can be levelled at these units, such as:—

(a) On the AM/FM unit, the indicating mark on the bandswitch knob is one step out of alignment with the panel markings.

(b) On the same unit, the dial pointer is too long and fouls on the dial lamps at both ends of its travel.

(c) On both units, the type of plug provided for audio and multiplex outputs is a real shocker to insert and remove. A split, cylindrical metal shell, tapered at the back, is supposed to slide over a metal ring on the socket, but only a fair swipe with a hammer or other blunt instrument is capable of achieving this! As the shell of the plug tapers to the cable end, and is smooth finished, removing it is even worse. One is certain to finish up hauling on the cable, which is bad—and how does one fasten screening braid to the plug? No locking rings—no nothing. It can only be soldered to the shell, which is untidy, if nothing more.

I feel that it would have been better to use the popular  $\frac{1}{4}$ -in. co-ax type of plugs and sockets. A little more expensive, perhaps, but why spoil the ship for a ha'porth of tar!

To change to compliments, a real word of approval is merited by the handbook supplied with each tuner.

It contains an absolute wealth of helpful information—everything necessary for connection, operation and maintenance, from details of how to make your own FM aerial to a full circuit diagram and components list. A very fine effort, and an example that many other equipment manufacturers could emulate. It shows that this one is thinking of the customers overall requirements as well as his own sales, and sums up the way in which these units are built—to satisfy.

So, although I'm not intending to write advertising slogans, if you want a tuner, you won't go far wrong with an Armstrong!

# DON'T DODGE THE CROTCHETS

MOST of us spend a good deal of time thinking and planning improvements in our sound reproduction equipment, which may involve deep contemplation and long discussions on stereo, loudspeakers, frequency ranges and similar matters. I am sure, however, that a lot of this thinking and talking is misleading because it takes place in mid-air, where fancy rules the waves, instead of at ground level where such evidence as we have to work on—and that is little enough—can prevent us from wandering too far from reality.

There is a tendency for this abstract contemplation to take place for the simple reason that sound is one of the most intangible things in the world, and one of the most difficult of all things to "pin down" and make decisions about. It comes from nowhere, in the material sense, and disappears almost immediately, leaving no trace. Even when it is manifest to us it consists of varied elements with varying life spans within the constantly moving general pattern. Without the collaboration of memory it would be totally meaningless and without concentrated attention it is half meaningless in any case.

It is not to be wondered at that our mental efforts in this realm tend to take the form of over-simplification. Rather than grapple with the awkward truth, it is a temptation to do our thinking about sound reproduction with the aid of less accurate but more manageable images.

## Stereo Notes

By D. W. GARDNER

This is done unconsciously, but it leads to trouble just the same. If we allow ourselves to believe that sound—and especially musical sound—is simpler than it really is, then we end by accepting equipment that might do a simple job well enough but which does not cope, in practice, with the highly complex reality.

Asked to define the music that they enjoy, nobody would describe it as an orderly succession of single notes or chords sustained long enough in each case to avoid overlapping, but when it comes to a discussion of the qualities needed in sound recording and reproducing equipment, many people quite clearly act on the assumption that such material is the stuff of which our music is made of.

By the use of this substitute imagery, they are able to convince themselves that all will be well if they acquire equipment which produces "a good spread of sound," or which "fills the room evenly." They are also prone to believe that nothing more is required of a response performance than a wide frequency range—free from distortion at each frequency—when a vital consideration in actuality is the capacity of an instrument to cope with many different sounds starting and stopping at different moments and overlapping in a variety of ways.

The favourite "sound filling the room" concept is responsible for most of the compression over the "to be or not to be" of stereo. What, in fact, would be the use of stereo if the note

after note (or chord after chord) idea represented the true bounds of music?

And it is reasonable for the cry that went up from a thousand throats, "stereo isn't needed any more," as soon as a curious report got into the national press that a speaker cabinet had been invented that "filled the room with almost perfect sound."

Is there any useful cure for this spurious imagery, which can lead so many souls up so many blind alleys where frustration lies in wait?

Nothing can help so much, perhaps, as a determined effort to carry around in one's mind a few phrases of music involving several different instruments coming in at different moments all over the place. Such a piece represents fairly accurately the basic character of the sounds we are trying to record and reproduce: the long, smooth, solitary notes can be looked after far more easily.

Gear all your effort to improve your equipment to a test piece of this nature, using an actual recording of such an excerpt whenever possible, and you will be safe from many profitless excursions.

And if you can persuade argumentative people around you, who seem to lack genuine terms of reference to think in terms of such really typical passages, you will be helping to vanquish the array of weird popular beliefs that now exist on audio matters.

Perhaps the whole thing can be summarised by stressing that we are never, in practice, concerned with "sound" or even with "music" but always with reproducing specific examples of music.

The real thing is elusive enough, heaven knows, so let us avoid the cloudlands of abstraction—notions of sound which are never heard, never recorded, and never reproduced.

## British Amateur Tape Recording Contest

(Continued from page 19)

Once you have all your sections spliced together, then comes the time to dub on to a clean tape. If you haven't a second recorder, no doubt you know of a friend who would be willing to co-operate.

Dubbing will have to be done very carefully. On the original recordings you will, of course, have been very careful to ensure that you maintained the same balance on all your sections, and also that your actors were in the same positions round the microphone if two or more sections made up one period of action. Even so, you may find that some of the sections will still vary, and this can be rectified at the dubbing stage.

The best method is to listen carefully to the master tape making notes as to where the volume varies. Then, when you come to the actual dubbing, you will be able to adjust the volume accordingly, so that you achieve a constant balance of sound on the final tape.

If you have been careful all along the line, then listening to the final tape should give you the impression of something recorded as a straight run-through. If it doesn't and you are conscious of breaks and changes in balance, then something has gone wrong in one of the stages—and you start again!

I hope that these few hints will help, and that if you haven't yet started on your entry you will do so today.

### B.B.C. "Sound" Programme

A magazine for radio and recording enthusiasts

6-40 p.m. April 24

(A repeat of the programme broadcast on April 16)

### THE INTERNATIONAL AUDIO FESTIVAL AND FAIR

A technical report by John Borwick and interviews with visitors to the Fair by Douglas Brown. John Borwick also describes useful accessories for the tape and hi-fi amateur.

"Sound" is broadcast on alternate Sundays at 2-40 p.m. on Network Three

*Amateur recording enthusiasts who make their own feature programmes on tape are naturally guided and inspired by BBC practice. We asked a famous British amateur, Ronald P. Guttridge, a prizewinner in the British and International Amateur Contests last year, to go to Broadcasting House and to report his impressions of things at the transmitting end. He visited the studio during a broadcast performance of one of the most popular Light programmes:—*

## THURSDAY ROUNDABOUT

**P**RODUCER Jack Singleton led me into the control cubicle twenty-five minutes before the programme was on the air. The sound of voices being wound-back on a tape machine greeted my ears. Ken Sykora, the compere of "Thursday Roundabout" was there with Bernie Andrews, who was in charge of two trolley-mounted E.M.I. TR90's, running at 15 ips, one of which was spooling through an interview. A cut of some twenty seconds was being worked out and this took until 5.25, leaving just time for a playback.

While this was going on, I took in the superb record-playing consoles manned by Chris Baker, who was lining up the discs needed for the programme; three consoles, each with two turntables and motors permanently turning. As each record is required (the pick-up arm being already poised over the exact groove), it is raised some quarter of an inch, contact is made with the needle and playing instantly begins.

The studio manager, Johnnie Beerling, who controls the programme sent from the studio to the Light continuity suite, checked his red cue light . . . 1½ minutes to go.

While this last-minute preparation continued, Jenny Thurgood, Jack's secretary, had been skimming through the evening papers to see if any items reported linked up with anything in the programme.

Dulcie Marshall, the newsreader and announcer, breezed into the control cubicle, collected Ken Sykora and they made for the studio and took up seats either side of a table. Jack Singleton, seeing that there were just 15 seconds to go, asked Johnnie to switch on the Light Programme in time to hear the news summary broadcast from the continuity studio. Then on flashed the red light—we're on the air!

The signature tune, "Windows of Paris" was brought in and then faded down, and Dulcie announced . . . "The BBC Light Programme presents 'Thursday Roundabout'. Your host is Ken

Sykora. . . ." Ken said his welcoming piece and Dulcie disappeared, Jack reminding her to be back by 6.25 for the Roundabout weather forecast and news.

While the signature tune still played, the first disc was lined up on another console ready for Ken's link. This record was brought in and, within seconds, the sensitive ears of Johnnie and Bernie prompted them to advise Chris, in unison, that he had forgotten to throw the top-cut switch. They beat time, like conductors, and indicated on which beat to flick it on.

Meanwhile, on the tape machine, which has three bell-push-like control buttons, each with coloured light repeaters to indicate which is functioning, Bernie was lining up the first tape-recorded contribution to the programme. These were by American folk singers Rambling Jack Elliott and Darrell Adams, and had been recorded earlier in the day. Sufficient material was recorded for more than one programme, and this had been edited down and



The author in his home "studio"

clearly marked with white tape for separation of items. During the subsequent playback, slight echo was added to improve the quality.

Following this recorded item, the only "live" musical performance in "Thursday Roundabout" was provided by that piano stalwart, Dennis Wilson. His piano was picked up by an AKG condenser microphone, backed up by a BBC-patented STC ribbon microphone, in case of breakdown.

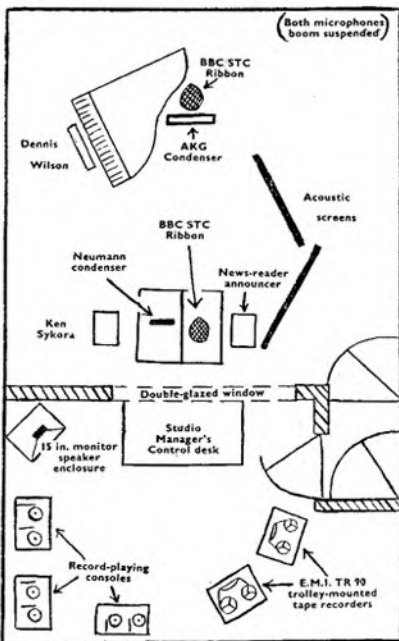
Talking of microphones, Ken Sykora's was a beautiful-looking pencil-slim Neumann condenser, and that used for Dulcie Marshall was another of the BBC/STC ribbons.

Tape interviews and talks, followed by appropriate musical comments (research by Ken Sykora) and more straightforward records, brought us to Crosby Cameo, a regular feature of "Thursday Roundabout". This was an interview, which concluded with a cue for Bing's "Mule Train", during which Dulcie slipped back into her chair in the studio ready to read the Roundabout weather forecast and news, which had been brought down from the newsroom a few minutes earlier.

Following the news, Ken announced Dennis Wilson's "Post-News Piano Perambulation", in which Dennis improvised at the piano for a minute or so, until 6.32 and 45 seconds. At that time Tonight's Topic goes on the air live from a talks studio elsewhere in Broadcasting House. (The speaker's probable duration and "out" cue is phoned through to the control cubicle just before the news.)

The topic completed, the final piece of tape is fed through and during this the signature tune is put on and pre-faded. The tape item over, a few words from Ken, and the signature music is brought up, over which goodbyes are said. At ten seconds before 6.40 the last chord of the signature tune is heard—as per script. The red light goes out, and from the continuity studio is heard . . . "Ken Sykora was your host on 'Thursday Roundabout', production by Jack Singleton."

This programme is a professionally perfected example of the type of thing which can be attempted by any tape recording enthusiast in blending together his own original tape recordings and discs.



The lay-out of the recording studio described on this page

# PORTABLES ON PARADE —

# Letters to the Editor

## A reader comments on our recent feature

MAY I congratulate you and your staff for the continued high standard of *Tape Recording Fortnightly*, which I have read avidly since the first issue, and which, despite the counter-attractions of other tape magazines, I still consider the best for all-round information.

Secondly, as a user of battery portable recorders for the last five years, may I comment on some of the descriptions and specifications in your excellent article, "Portables on Parade"?

Taking the machines I have used, I mention first the Butoba M.T.5. You list among its facilities pause control and safety erase. There is no pause control, as such, on the Butoba, but there is a "quick release" button, which, with the finger exerting great pressure, can be made temporarily to stop the tape, although not immediately. There is no safety erase button, for the "record" button can be pressed accidentally; this I have done, much to my horror!

A pause control can be made easily by anyone able to use a hand-drill and a pair of pliers, which has the effect of "re-loading" the sprung tape "gate" behind its quick-release button, giving immediate stop and start when either recording or playing-back. I will gladly send a sketch to anyone with this model Butoba who requires one.

The Steelman "Transitape" had not—on the model I used—a safety-erase lock as mentioned in your article. The large function-knob has three positions: stop, playback and record, giving, on a previously recorded tape, a momentary "bleep" of the previous recording as the switch was turned through playback to record position.\*

This can be easily overcome by using the battery-to-mains changeover switch on the back of the recorder as an overriding control. When on battery power, moving the switch to "mains" will immobilise the machine. Then, with gain fully off, the function knob should be set to record position. Bring the changeover switch back to "batteries" and the machine will start, and bring your gain control to correct volume and you have a perfectly smooth recording.

This switch can be used as a temporary stop just as easily, but DO turn the volume down before stopping the machine, and up again AFTER the machine has been re-started.

The other machine you list, and which I have possessed until recently, is the Stuzzi "Magnetite," although mine was one of the earliest models in this country. One "facility" you do not mention is that of "monitoring," which can now be done with headphones if required.

I am currently using a Japanese "Documentor" mains-battery midget, which so far you have not reviewed.

I would like to differ from your first paragraph in the "important feature" column, where you state size and weight

as possibly the most important details.

Using a battery portable, in many and varied situations, I have always found that the ability to manipulate the machine with one hand (while positioning the microphone with the other) to be the outstanding requirement, coupled, of course, with bulk and weight.

Many so-called portables are too bulky for the recordist to handle, and two hands are not always available to switch on and regulate controls while holding a microphone and recording some now-or-never incident.

In this respect there is nothing on the market at the moment to compete with the Stuzzi, for this machine can be switched and controlled with one hand, even while holding the microphone in the same hand and actually recording, with some excellent results.

The "Documentor," which I am now trying out, also offers one-hand control, but this is not as easy, nor is the recording or playback to be compared with the Stuzzi; but, after all, the Documentor is only a third of the size of the TK1!

Perhaps the following odd details might be of use to some fellow-recordists? If you possess a Clarion Transitape, or its predecessor, the Phonotrix, one of the ex-Govt. surplus throat microphones is a useful accessory in noisy surroundings;

but do practice and try to get those s's and n's!

Another mic, sometimes sold as a "lapel" mic. (for which it is useless) and again ex-Govt. surplus, and in a velvet lined case, is actually an underwater microphone, and some astonishing sounds can be captured on the Transitape with this microphone.

The Grampian D.P.4 microphone (600 ohm impedance) is an excellent match for the Stuzzi Magnetite, excellent on the Documentor, and can be used with fair success on the Butoba M.T.5 as well as matching the Cossor, Stella, and Philips mains recorders.

KEN LINGARD.

Honiton, Devon.

*\* Editor's Note.—The model sent to this office for review did have a safety erase lock, though it showed the same "bleep" characteristic mentioned by Mr. Lingard. Since we initially announced the availability of the Documentor in our December 14 issue, we understand the limited import quota has been exhausted, and there is no likelihood of it becoming available again. May we take this opportunity to apologise for the top frequency response omission of Butoba M.T.5 in our review. This machine's full range is 50-13,000 cps at 3½ ips, and 60-5,000 cps at 1½ ips.*

## COPYRIGHT: I advise the amateur to protect himself with a licence

SO this copyright business is still causing trouble! Surely there is no need for so much argument and acrimony. Your excellent magazine has published much learned guidance and the rules are simple enough to observe—if one wishes to use a sound created by someone else then permission must be sought and, if granted, one may be called upon to pay for the privilege.

There may be difficulty in deciding whom to approach for permission as, frequently, there can be several interested parties, including obscure but invaluable people such as arrangers, and, for off-the-air sounds, the BBC. However, the exercise of a little diligence and letter writing will solve the problem.

I am often faced with the task of obtaining permission for the use of copy-

right material and, although not always successful, never have I found any individual, organisation or company anything but reasonable, co-operative, even generous, but let me pass on a confidential tip—one of these fine days some wretch will find himself the defendant in an expensive action for breach of copyright, so get yourself covered with licences and letters of permission, Jack, or it may be you!

Sorry your correspondent, Mr. Patrick Tucker, feels aggrieved by treatment which, in my humble opinion, is quite fair but, in any case, had he used the desired background his entry for the I.T.R.C. 1961 would have been disqualified under Rule 3 . . . surely?

D. C. COMPER.

Putney, S.W.15.

Have you an idea, a complaint, or a bouquet to hand out? Write to us about it. Letters not for publication should be clearly marked.

# Letters to the Editor

## Charge your tape to lie flat when splicing

WHILST splicing some tape recently, I made a small discovery which I feel could be of use to your readers.

I expect that most of us, at some time or other, have found difficulty in keeping the tape flat, with the spliced edges exactly together, whilst we endeavour to get the splicing tape stuck on to the tape itself.

I found that if I rubbed a piece of perspex (any similar plastic material would also serve) it became charged with electricity. The charge will hold long enough to attract the tape to the surface of the perspex, and it will hold it firmly in any required position, whilst the splicing tape is applied.

The actual plastic I used, was, in fact, an "Emitape" case, and I found it excellent. I was able to splice the tape easily and quickly by the method described.

Finally, may I take this opportunity to thank you for the excellent article on the battery portable recorders, in the last issue. It was very well timed. I am looking forward to investigating further at the Audio Festival.

RICHARD PHILBRICK.

*Uxbridge, Middlesex.*

## Tape contacts wanted

I HAVE recently acquired a tape recorder, and would like to know whether there are any tape-recorder clubs in Britain that I can join, to get more use out of and learn more about my instrument.

I am particularly interested in corresponding by tape with other enthusiasts in your country.

Would you be so kind as to inform me as to the existence of any such clubs, and/or give me the addresses of tape recorder owners who might also be interested in corresponding with a South African.

A. M. MEIRING.

*722, Park Street,  
Arcadia, Pretoria,  
Transvaal, South Africa.*

## Briefly

ALL best wishes to you for the Audio Festival. Your pre-view in the current issue of the magazine is very valuable to us poor outcasts. Many thanks. I only wish I could get down for it.

W. PATRICK COPINGER.

*Kilmarnock, Ayrshire.*

## Will the industry ever set up a recorder test examination body?

PLEASE allow me to make some comments on two discussions (your issue of March 8) of our report on comparative tests of tape recorders published in the January issue of our magazine *Which?*

Whatever else Mr. Wayne may have been told, I did not tell him as he puts it "that the published evaluations and tables were not necessarily based on the figures and reports submitted by CA's own chosen laboratories and consultants!" What I tried to convey to him over the telephone was that as a matter of policy we do not publish the names of collaborating laboratories and consultants. This is because the reports published by us in many cases are based on information and advice obtained from several different laboratories and consultants.

Apart from this, it would be invidious to publish the names of some laboratories and consultants when there are some, as there are, who for a variety of reasons that seem good to us do not wish us to publish their names. I may add that it is a standard condition of our commissioning work that the laboratory or consultant concerned undertakes to give evidence in a court of law should we require this.

On February 28, I sent Mr. Wayne a Research Paper which described the tests on which we reported in January. This gave in considerable detail the method of selecting the brands/models tested, particulars of the individual tests and of the equipment used, and described the method of weighting the results in the final assessment.

Mr. Wayne takes us to task for including in the test both the Wyndor Victor and the Ferrograph 4AN/1. The Ferrograph was included by us deliberately because we wished to compare it with cheaper models knowing that it had a high reputation for quality of sound. The Wyndor was included by us because it had a sufficiently large share of the market of the recorders in the £30 to £85 group.

I thank Mr. Wayne for his suggestion that we should "build and equip" our own laboratories. As he must know, this is not a practical idea—our tests have ranged from baby pants to tinned meat, and from detergents to washing machines. No one laboratory could be expert in testing the whole range of consumer goods. That is why, in the case of tape

recorders, we commissioned the testing work from an independent, specialist electronic and acoustic laboratory after we had carefully investigated its reputation as scientists and technicians.

Mr. Howard's letter is interesting because it shows why we were fully justified in attempting to help our members by giving them comparative information. But I must disagree with him on one point. His main criticism of many, but unspecified, tape recorders on the market is that they are unreliable. And he says that "one bad or good recorder does not necessarily typify a production line of thousands of machines."

In our assessment we did not give heavy bad marks for faults that (with some inconvenience to the user) could be rectified quite readily. But unreliability due to relatively poor design did attract relatively low marks.

I believe that with an expensive branded article, like a tape recorder, it is up to the manufacturer to ensure that first, his product, including bought-in parts, is sound and, secondly, that assembly and final adjustment are consistent.

Finally, I must ask Mr. Howard, who suggested that the industry "set-up its own test examining body . . . which would issue reports that all could trust," whether he thinks the industry will ever do so and, if so, how helpful the reports would be to consumers and, for that matter, dealers?

CASPAR BROOK.

*Director and Secretary,  
Consumers' Association.*



We regret it has been found necessary to hold over the sixth instalment of H. Burrell-Hadden's series on building a stereo mixer. This final article will now appear in our May 17 issue.

# TAPE

RECORDING  
AND HI-FI MAGAZINE



**The Sign of Good Tape!**

**Emitape**

\*44" Reel-to-reel  
\*80" Reel-to-reel  
\*99" Reel-to-reel  
\*100" Reel-to-reel

1960-61 YEAR BOOK 6/-

## TAPE RECORDING AND HI-FI YEARBOOK 1960-61

Fully illustrated and presented in non-technical language, its contents include: four articles on the use of tape recorders; one on the copyright situation; and a complete catalogue of every tape recorder on the market.

**PRICE - SIX SHILLINGS**

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COPY(IES) OF TAPE  
RECORDING AND HI-FI  
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I ENCLOSE REMITTANCE  
HEREWITH**

NAME .....

ADDRESS .....

.....

## LANGUAGE AND EDUCATIONAL PROGRAMMES ON TAPE

### Teach-U-Tapes

**P**RE-RECORDED educational tapes, called Teach-U-Tapes, are now being marketed by K.L.P. Film Services. Each talk lasts about thirty minutes at a playing speed of 3½ ips and costs three guineas per tape.

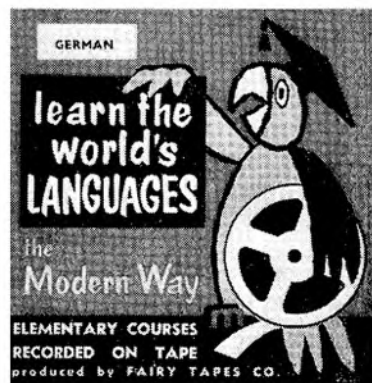
One of the tapes, entitled "An Introduction to Magnetic Tape Recording in the Home," is of particular interest to recording enthusiasts. It contains historical notes on the medium, and has a wide coverage of the technical considerations of a machine with examples of good and bad recorded sound.

*K.L.P. Film Services, 3, Queen's Crescent, Richmond, Surrey.*

### Fairy Tapes

**F**URTHER language courses on tape are currently appearing on the market, this time under the Fairy Tapes Company label.

Recorded on 5-inch spools, carrying 700 ft. of British PVC long-play tape, the new language courses include French, German, Spanish and Italian.



Professional artists have recorded these issues which retail at 29s. 6d. and play at 3½ ips. They are available in attractive boxes, as illustrated above.

*Fairy Tapes Company, 60/66, Wardour Street, London, W.1.*

### NEW PRODUCTS

#### Reduced prices for POLITECHNA...

**R**EDUCED import duties under the European Free Trade Association trade agreements, and improved production techniques by AKG of Vienna have enabled price reductions to be made with effect from April 6, state Politechna (London) Ltd.

The new prices are: Microphones, Type D9, dual impedance, £4 14s. 6d.; D11N, dual impedance, £6 10s.; D88, stereo, low impedance, £15 10s., high impedance, £18; D19B and D19BK, £17 10s.; D19BK with ST19 table stand, £18 15s.; D19BK, high impedance with ST19 table stand, £19 10s.

Their K50 headphones will now retail at £7 10s.; their floor stand, ST200, at £12 10s.; and the ST10 desk stand, at £1 15s.

*Politechna (London) Limited, 3, Percy Street, London, W.1.*

#### ... and MINIVOX

**A** PRICE reduction for the Minivox portable tape recorder is announced following the adoption of a new sales policy by the manufacturers, Challen Instruments Co.

The Minivox C, a two-speed transistorised recorder, which has been selling at 41 guineas, will now retail at 30 guineas, as a result of the change which will incorporate a direct manufacturer/dealer system of distribution.

In addition to this price change, the manufacturers hope that the new policy will have the effect of providing stockists all over the country with the best possible service.

*Challen Instrument Co., 1, St. Michael's Road, London, S.W.9.*

#### Miniature amplifiers

**A** RANGE of small audio frequency amplifiers using miniature techniques which are claimed to achieve micro-circuit proportions are being produced by Amplivox Limited of Wembley.

Announcing these recently, the company claimed that component densities up to several hundreds per cubic inch are obtained by using conventional wiring methods.

*Amplivox Limited, Beresford Avenue, Wembley, Middlesex.*

### 12½ GUINEA RECORDER

**W**HAT is believed to be the cheapest tape recorder on the market was recently seen in an East London showroom. The new recorder is a Japanese transistorised model selling at £13 2s. 6d.

The model seen is the first of a batch to be received in London, and details are not yet available. To date, we have only learned that it will be called the Apollec, but we hope to have full specifications and a photograph in time for our next issue.

# News from the Clubs

THE extent to which clubs and manufacturers are co-operating to gain publicity and at the same time provide a worthwhile service is once again shown by the latest activities of the **Plymouth** club.

One of their latest enterprises is a recording talent contest which they are offering with the assistance of E.M.I. Records Ltd. Another equally gainful exercise is being organised with the co-operation of their local A.B.C. cinema.

Some twenty applications had been received for the talent contest at the time of writing, and the "budding stars" include a twenty-strong choir, and a lady in Cornwall who claims to be a female Liberace. Mr. Rennie of E.M.I. is to judge the contest, and it is understood that this company will also furnish the tape that the finalists will use for their entries.

The manager of their local cinema has promised complimentary tickets to his shows as prizes in the second enterprise down at Plymouth. A cinema quiz is to be organised at the clubrooms and for the purpose a number of sound tracks from the club's Cinema Scrapbook Tape Library will be used.

In each case the club is bound to have attention drawn to its existence, and this after all is the prime factor.

Other aspects of the club include a newly-organised free tape playing service to which the club's technical adviser Reg Roper is devoting a great deal of time. The system began when secretary John Baker and Mr. Roper played to a local fireman and his wife the recorded voice of their son who is stationed with the RAF in Singapore.

The club is to lose its founder and present chairman John Ashby. He is soon to take up a position as steward on the liner *Queen Mary* and will therefore be unable to attend regularly. However he intends to keep in touch with the members, who, no doubt, will soon be receiving tapes with a nautical flavour.

A budgerigar stole the show at the most recent meeting of the club when Eddie Cox included his pet's voice in the selection of humorous recordings presented by Messrs. Roper, Campion, Davey and Baker. It beats me how they do it. My feathered pal just clamps up when I approach with a microphone, and

he is so slow in giving voice that I have not the patience to sit and wait.

Yet another example of the work some clubs put into their publicity campaigns is provided by the **South-West London** members.

As part of the Exhibition of Work held by the Central Wandsworth Institute on March 18, these enthusiasts contributed a miniature Audio Fair.

Plans for this were laid as early as January when a committee comprising Denys Killick, Richard King, Harry Foleder and Peter Lewis was set up to organise the show.

Their exhibit was divided into two parts. The static display, using some nine different machines, gave examples of tape exchanges, drama, outside recording, tape records, stereo and included a "record-your-voice" stand. Stands were also provided for magazines and publications, and a "What's on the market?" advice bureau.

In the studio next door to the static display room, were arranged a Vortexion, Brenell 3-star stereo, a Vortexion mixer and a large amplifier. Two matched Avantic speakers were used for playback, and two Cadenza ribbon microphones for recording.

This equipment, backed by large display photographs loaned for the occasion by Grundig, was used to provide thirty-minute demonstrations of live recordings of speech, music and drama, live stereo recordings, playback of specially recorded stereo trains and motor-cycles, and stereo music. This latter item having been furnished by kind co-operation of the Institute's orchestra.

These hourly demonstrations were announced over the school PA system, and although the club exhibits were held apart from the main exhibition, audiences of 20 to 25 were reported to have attended each of the six shows.

The club received some gratifying compliments from visitors and Institute officials, but these were not so welcome as the encouragement received which will lead the club to expand its classes in future.

Publicity again to the forefront, this time in connection with a club that has only once appeared in our pages situated in **Woolwich, Kent**. A recent letter modestly claims that the members wanted to have some activities worth publishing before reporting their existence. The letter then goes on to a five-page screed outlining the activities since the club was formed last September.

I hope the writer, publicity officer F. J. Blaby, will not mind if I request the delay will not be so long in the future. This, of course, applies to all clubs. Mr. Blaby's letter contained some interesting and amusing material which I regret could not be condensed into my column and still retain its flavour.

Once again this brings to mind the old problem concerning club notes—that of unpublished reports. My intention is to

publish up-to-date news of the clubs, and, unfortunately, on numerous occasions we have had to hold out items because it has missed one issue, and has been superseded by later reports from the same club before appearing in the following issue. If the persons concerned will supply regular factual accounts of their club's activities, we promise they shall not be withheld. I shudder to think of the "old pals act" that has been levelled against me in the past, and assure every club that this is not the case.

Returning again to the Woolwich club, we find these members have been concerned in quite a number of publicity campaigns in the last few months.

One of the first was in connection with a national Hoover Week. Dave Charnley presented prizes at a local radio and television exhibition, allied to this special week and member Stan Byfield, with his Stuzzi portable, was present to collect an interview with the boxing champion. Mr. Charnley later showed keen interest in the club's stand, and admitted being a recorder owner, but unfortunately the members could not encourage him to join the club.

In the following month, Cliff Hurst, Stan Byfield and Frank Blaby recorded a service of Thanksgiving at the doomed Holy Trinity Church in Woolwich. The Rev. N. Stacey had asked members to record the last service at the church before the demolition squad moved in to clear the site for a huge development scheme.

Using a Ferrograph, a Stuzzi and a Regentone, members recorded the service and later edited the 110 minute programme into a master tape which was presented to the Rector.

Another member, Ron Ledgerwood, and a Regentone, visited the Goldie Leigh Hospital for children in December and recorded a short speech by one of the patients. This speech was later replayed at a presentation ceremony at the hospital staff's annual dance.

Technical demonstrations have been held during the regular club meetings, one of the first being presented by Lustraphone Ltd. Frank Baker also lectured members on pre-amp circuits and mixers. Such was the interest shown and the hints gleaned from the mixer talk, that a few home-made items have already appeared in the club.

The members also have their humorous moments, one of the latest being in the form of a ten-minute tape, produced by Frank Blaby, giving illustrations on how not to carry out tape exchanges.

Amusingly demonstrated were those familiar figures the tired contact, the boring slow talker, the enthusiastic technician, and others.

February provided quite a busy interlude for the club members who were approached by the Friends of St. Nicholas Hospital. This organisation supplies a disc programme for the patients on Sundays, and it was agreed that the club members should supply a short tape of local news and events for inclusion in the weekly programme.

It would appear that the members have some connection with one of the town's publicity organisations. At least, they certainly seem to pop up at the most unusual activities. One of the most unusual was a beard-trimming exercise, the principal

(Continued on page 33)

## Classified advertisements

Rate—Sixpence per word (minimum 5s.); Trade, ninepence per word (minimum 10s.); box numbers, one shilling extra. Payment with copy. Copy should be sent to Advertisement Department, "Tape Recording Fortnightly," 1, Crane Court, Fleet Street, London, E.C.4.

### SERVICES

Tape recorder need repairing? Then let London's Largest Tape Recorder Specialists do it for you, expertly and economically. Essex Tape Recorder Centre, 2, Maryland Point Station, Stratford, E.15.

FERROGRAPH 4 A/N's-808's, VORTEXION WVA, WVB, SIMON SP4, REFLECTOGRAPH A-B, etc., always in stock and ready for immediate delivery, as well as over 200 latest 1960 recorders at London's Largest Tape Recorder Specialists. The best, lowest H.P. terms, and finest selection of new and s/h recorders, from £18. Generous P/E allowances. Essex Tape Recorder Centres, 2, Maryland Point Station, Stratford, E.15, and 205, High Street North, East Ham, E.6.

GRUNDIG sales/service in your area: High Wycombe phone 457, Newbury phone Thatcham 3327, Wallingford phone 3083, Orpington, Kent, phone Orpington 23816, New Malden phone Malden 6448, Watford phone Garston 3367.

### MISCELLANEOUS

WAL GAIN transistorised pre-amplifiers. Many applications, extra gain for Mics, Tape Heads, P-U's, etc. Mono version, £5. Stereo, £7 10s. WAL BULK TAPE ERASER, both tracks 8-in. reel erased 30 sec., £7 18s. 6d. WALTRAK transistorised oscillator, 1,000cps, indispensable for Service, £6 10s. Full technical literature sent, supplied through all leading dealers. Wellington Acoustic Laboratories Ltd., TRC Dept., Farnham, Surrey.

EASYSPLICE TAPE SPICER — PATENTED & GUARANTEED makes tape splicing simple, easy and accurate. 5s. P. & P. 6d. Agents wanted, good discounts. EASYSPLICE, 30, Lawrence Road, Ealing.

### PRE-RECORDED TAPES

Unique 40-page catalogue listing all makes, Mono, Stereo, 7½ and 3¼ ips. Send 2s. 6d., refundable on first tape record purchased. Dept. 6, Teletape Ltd., 33, Edgware Road, W.2. PAD 1942.

FRIENDLY FOLK ASSOCIATION, 87, Terrace, Torquay. Leading International Correspondence Hobby Club since 1943. Now included, facilities for Tapesponding. Details free.

Something to sell?—equipment for exchange?—looking for a job in the hi-fi tape field?—seeking a tape contact abroad?—tape-to-disc services to offer?—expert staff needed? A classified advertisement in *Tape Recording Fortnightly* will bring you quick results—cheaply.

### MISCELLANEOUS

Do you use the telephone? If so you will find a Dektron Telecon the most useful of all your recording accessories. The Telecon is not just a novelty but a unit which you will use frequently for both family and business purposes. You will be surprised by its efficiency. Just stand it behind the phone (no connection is necessary) and both sides of the conversation can be recorded, or, if you wish, amplified and broadcast to listeners in the room. The price—only 27s. 6d. post free. To ensure delivery by return post write today to Dektron, 2, Westbourne Road, Weymouth.

### TAPE-TO-DISC

JOHN HASSELL RECORDINGS. Tape/Discs. All Speeds. CCIR Studio, 21, Nassau Road, London, S.W.13. Riverside 7150.

Tape to Disc—All Speeds. Rendezvous Records. 19, Blackfriars Street, Manchester 3. Leaflet on request.

TAPE TO DISC RECORDING. Microgroove LP from 27s. 6d., 45 rpm EP—20s., 78 rpm—11s. 48 HOUR RETURN SERVICE—FINEST QUALITY. S.A.E. for comprehensive leaflet to: A. D. Marsh ("Deroy Sound Service"), 52 Hest Bank Lane, Hest Bank, Lancaster.

### FOR SALE

E.M.I. portable tape recorder, model L2 as used by BBC for field work. Battery operated, perfect condition, accessories. Offers? Write or visit Schafer, 10 Alwyne Place, London, N.1.

GRUNDIG TK28. Brand new 4-track 2-speed stereo tape replay £55. Windsor 582.

### WANTED

WANTED — Fi-Cord — Latest model, complete and in mint condition. G. Stothard, The Boat Hotel, Boat of Garten, Inverness-shire.

### SITUATIONS VACANT

Kodak Limited have a vacancy for a tape recording enthusiast who would assist in the preparation of tape lectures. A knowledge of tape recording theory is desirable and practical experience essential. Please apply, giving personal particulars, to the Personnel Manager, Kodak Limited, Kingsway, W.C.2.

## TAPE EXCHANGES

TAPE recorder owners who would like to make contact with others of similar interests to exchange news and views by tape are invited to send their name, address, sex, age and special hobby or interest (but only one, please) for this special new section.

It will be assumed that all tape contacts will be made using a speed of 3½ ips, on half-track tape. If space permits, additional speeds, or track usage will be published. Maximum spool size only is given.

**Brunskill, Harry.** 20, Providence Terrace, Thornton, Near Bradford, Yorkshire. Ex-comedian B.E.S.A./ENSA would like to contact old pals on tape. Three-inch spools.

**Cox, Ian** (21). The Bungalow, Welcome Hill, Kings Langley, Herts. General interests. 3½ ips. 5¼-in. spool.

**Grimmond, Edward A. M.** (33). 29, Abbey Court, Upper Park Road, Camberley, Surrey. Photography. Contacts in France particularly welcome. Prefers 3-in. spools.

**Haynes, James** (37), 18, Torre Mount, Leeds 9, Yorkshire. Popular music and photography. Female contacts wanted—letters first please.

**Spring, H. A.** (Male). 16, Newquay Avenue, South Reddish, Cheshire. General interests. Contacts home or abroad. 1½ to 15 ips. 7-in. spools.

**Talling, Jack E.** (33), F2a-64 Hough Green, Chester, Cheshire. 7½ and 3¼ ips. Message spools only.

**Woolterton, Robert** (16), 72 Rectory Road, Manor Park, London, E.12. Sports; popular, country and western music. Seven-inch spools. 7½, 3¼ and 1½ ips. Wishes to contact persons of similar age.

### SCHOOLS

**Norwood Green J.M. School.** Please contact J. Spicer (Miss), 20, Greenford Avenue, Southall, Middlesex. 300 pupils "exploring this fascinating field."

**Raons County Secondary School,** Raons Road, Amersham, Bucks. (Mr. Owen.) All speeds 1½ to 15 ips. 7-in. spools.

**Shoreditch School,** Falkirk Street, London, N.1 (John Howse, Teacher). Mixed Secondary, with 1,500 pupils. Wide range of "recordable" interests and activities. English and French languages.

**Tindale Street JM High School** (R. P. Aston), 63, Sansome Road, Shirley, Solihull, War.

\* \* \*  
Send details to "Tape Exchanges," Tape Recording Fortnightly, 7, Tudor Street, London, E.C.4.



# News from the Clubs

(Continued from page 31)

figures of which were two jazz musicians Monty Sunshine and Owen Bryce.

The latter's chin was bared by the former in connection with a contest organised by a local cinema. Contestants had to guess the time involved. Sure enough the club members were in attendance, and they obtained interviews with the two musicians who later chose some records for the hospital tape scheme. Their "scoop of the day" was the recording of Monty Sunshine's latest number "Jaqueline" which had only been released that morning.

A complete recording of the proceedings and interview was later presented to Owen Bryce who straight away lost the tape again so that the recording of the presentation could be tacked on.

I cannot think the Woolwich club can have grounds for complaint on the lack of activities score.

Car rallying with tape recorders was the subject of a talk given by John Campden to the members of the **Rugby** club at their March 23 meeting. He spoke of his experiences on such rallies, and dealt with the many applications of a recorder, including its use as an aid to navigation. After explaining the operational organisation of these rallies, he illustrated his lecture with a demonstration of the Grundig Stenorette which he explained he had used many times in this respect.

A gathering of all the local clubs that can attend was to be held at the April 16 meeting of the club. Acceptances for this get-together had been received from the **Northampton** and **Hinckley** clubs, and others were expected. The Nottingham club members had even postponed their AGM so as to be able to attend.

Also present for the evening were to be guests representing the cultural and educational life of the town, including the chairman of the Town Twinning Committee (Rugby has a twin-town in France), who hopes to set up a contact on tape between the two communities.

A thoroughly enjoyable evening was reported to have been had by the members of the **Walsall** club who visited the Wolverhampton showrooms of M. R. Warner & Son Ltd., at the end of March.

Following the tour of inspection of equipment, the members were entertained to their own private showing of the BASF film, *The Magic Tape*.

Afterwards, Mr. Basil Harley, who won the British Tape Recording Contest in 1959, gave an illustrated talk on the production of feature tapes.

A number of attractive programmes are lined up for the future, and Mrs. J. Walford, the secretary, is currently organising a special campaign to encourage more members. Write to her at 41, Mill Road, Pelsall, Walsall, for further details.

The well-known tape *Strange to your Ears*, produced by Roy Penfold of the Coventry club, was one of the highlights of the first meeting of the **Hinckley** club. This new Leicestershire club held its first meeting on March 3, and has decided to hold future meetings on alternate Wednesdays.

Their second meeting, held in the Wharf Inn, Coventry Road, brought a further two members. David Haskard, one of the founders, took along his film projector and KGM Cinecorder and demonstrated the use of tape and cine. He showed the club three films which he had produced whilst working in Kenya. The titles speak for themselves, being *Big game hunting with a camera*, *Nairobi, City in the sun* and *Here and there*. All were produced in colour and according to the members were said to be expertly filmed.

Although only a new club the members are wasting no time in pursuing the documentary aspect of tape recording, and are currently involved gathering material for a tape on Hinckley.

The secretary of the club is Keith Smith, and his address is 117, Wykin Lane, Hinckley, Leicestershire.

Demonstrations of the range of equipment manufactured by Simon Equipment Ltd. were given at the March 22 meeting of the **Cambridge** club when Mr. Hartley of that company visited members. The renowned SP4 was one of the machines shown, and demonstrations were also given of the Cymbal and Minstrelle. Of particular interest to the club was the stereo amplifier now sold as an accessory to the Minstrelle. This was put through its paces, and the members made a series of stereo test recordings.

Such has been the reaction to the membership campaign of this club, and the enthusiasm shown at their fortnightly meetings, that the club is now holding weekly meetings.

Referring to the change, secretary Mike Renshaw said, "we have not had one dull evening since the formation of the society. Membership has continued to rise, and we have great plans for the summer and autumn sessions."

A competition evening has been outlined for the April 19 meeting, and this is to be followed on May 10 by a talk on the construction of the **Federation of British Tape Recording Clubs**. Secretary Alan Stableford is to travel north for the meeting.

The familiar *Magic Tape* film is to be presented on May 24, when a talk will also be given by the BASF tape manufacturers.

## CLUB MEETING DIARY

Is your club included in this list? If not, send details, on a postcard please, including date of the next meeting.

**ACTON:** Alternate Fridays at the King's Head, Acton High Street. (April 28.)

**BATH:** Alternate Wednesdays at 35, Green Park, Bath. (April 19.)

**BETHNAL GREEN:** Every Friday at Shoreditch Tabernacle, Hackney Road.

**BIRMINGHAM:** Every Monday at the White Horse Cellars, Constitution Hill.

**BLACKPOOL:** Every Wednesday at 173, Church Street.

**BOURNEMOUTH:** Alternate Tuesdays at the Civil Defence Centre, Holdenhurst Road. (May 2.)

**BRIDGWATER:** Alternate Tuesdays at Erio's Radio, West Street. (May 2.)

**BRIGHTON:** Every Wednesday at Fairlight School, Pevensey Road.

**BRIXTON:** Every Tuesday at The White Horse, Brixton Road, S.W.9.

**CAMBRIDGE:** Every Wednesday at the Mitre Hotel, Bridge Street.

**CATFORD:** Every Friday at St. Mary's C.E. School, Lewisham, S.E.13.

**CHESTERFIELD:** Every 3rd Monday at the Yellow Lion Inn, Saltergate. (May 1.)

**COTSWOLD:** Every 3rd Thursday at the Theatre and Arts Club, Cheltenham. (May 4.)

**COVENTRY:** Alternate Thursdays at Queens Hotel, Primrose Hill Street, Coventry. (April 27.)

**CRAWLEY:** 1st and 3rd Mondays in month at Southgate Community Centre.

**DARTFORD:** Every 4th Tuesday at Dartford Public Library.

**DOVER:** Alternate Mondays at The Priory Hotel. (May 1.)

**DUNDEE:** Alternate Mondays at The Salvation Army Hostel, 31, Ward Road. (April 24.)

**EASTBOURNE:** Alternate Saturdays at Hartington Hall, Bolton Road. (April 29.)

**EDINBURGH:** 1st Tuesday and 3rd Sunday at 23, Fettes Row, Edinburgh 3.

**ENFIELD:** Alternate Wednesdays at Bush Hill Park School, Main Avenue, Enfield. (April 26.)

**GRANTHAM:** Weekly, 1st week in month, Wednesday; 2nd, Monday; 3rd, Thursday; 4th, Friday, at Grantham Technical College, Avenue Road.

**GRIMSBY:** Alternate Tuesdays at the RAFA Club, Abbey Drive West, Abbey Road. (April 25.)

**HARROW:** Alternate Thursdays at St. George's Hall, Pinner View, North Harrow. (April 20.)

**HINCKLEY:** Alternate Wednesdays at The Wharf Inn, Coventry Road. (April 26.)

**HUDDERSFIELD:** Fortnightly, alternate Thursdays and Fridays at the Congregational Church Schoolroom, Great Northern Street. (April 21.)

**ILFORD:** Every Tuesday at the RAFA Rooms, Cranbrook Road.

**IPSWICH:** Fortnightly, alternating Fridays and Saturdays at the Art Gallery Committee Rooms (April 21) and the King's Arms Hotel, Cornhill. (May 6.)

**KEIGHLEY:** Alternate Wednesdays at the South Street Sunday School Rooms. (April 19.)

**KETTERING:** Alternate Wednesdays at the Rising Sun, Silver Street. (April 26.)

**LEEDS:** Every Thursday at the British Legion Club, Albion Street, Leeds 1.

**LEICESTER:** 1st and 3rd Friday at Bishop Street Reference Library.

**LONDON:** 2nd and 4th Thursdays at the Abbey Community Centre, Marsham Street, S.W.1.

**LUTON:** 2nd and 4th Tuesdays at Flowers Recreation Club, Park Street West, Luton.

**MAIDSTONE:** Alternate Thursdays at the Corn Exchange. (April 27.)

**MANCHESTER:** Every Saturday, 6 p.m., at 20, Naylor Street, Hulme, Manchester 15.

**MIDDLESBROUGH:** Every Tuesday at 130, Newport Road.

**NOTTINGHAM:** Alternate Thursdays at the Co-operative Educational Centre, Broad Street. (April 27.)

**PLYMOUTH:** Alternate Wednesdays at Virginia House, Plymouth. (April 19.)

**RUGBY:** Alternate Thursdays at the Red Lion, Sheep Street. (April 20.)

**SOUTHAMPTON:** 2nd and 4th Thursday at The Bay Tree Inn, New Road.

**SOUTH DEVON:** Alternate Wednesdays at the Man Friday Cafe, Torwood Street, Torquay. (May 3.)

**SOUTH-WEST LONDON:** Every Wednesday at Mayfield School, West Hill, S.W.18.

**STAFFORD:** Alternate Tuesdays at The Grapes, Bridge Street. (May 2.)

**STEVENAGE:** Alternate Tuesdays at the Tenants' Meeting Room, Marymead. (April 25.)

**STOKE NEWINGTON:** Every Wednesday at 53, Londesborough Road, N.16.

**WALTHAMSTOW:** Alternate Fridays at 26, Church Hill, E.17. (April 21.)

**WARE:** 2nd Tuesday at The Old Brewery Tap, High Street.

**WARWICK:** Alternate Wednesdays in Room 18 of the Royal Leamington Spa Town Hall. (May 3.)

**WEST HERTS:** Fortnightly, alternating at the Cookery Nook, Watford (April 19) and Heath Park Hotel, Hemel Hempstead. (May 3.)

**WEST MIDDLESEX:** 2nd Thursday at the Railway Hotel, Station Road, Hampton, and 4th Thursday at St. George's Hall, Lancaster Road, Southall Broadway.

**WALSALL:** Every Wednesday at 113, Lichfield Street.

**WEST WALES:** 1st and 3rd Thursdays at The Meeting House, New Street, Aberystwyth.

**WEYMOUTH:** Alternate Wednesdays at The Waverley Hotel, Abbotsbury Road. (May 3.)

**WINDSOR:** Every Thursday at The Royal Adelaide Hotel.

**WINCHESTER:** Every Friday at The Ship Inn.

**WOOLWICH:** Alternate Mondays at "The Armstrong Gun," Vincent Road, Woolwich. (April 24.)

**YORK:** Every Monday at 11, Southlands Road, off Bishopthorpe Road, York.

Unless otherwise stated, meetings start between 7 and 8 p.m.

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