

amateur TAPE RECORDING

VOL. 2. No. 3

PRICE 2/-

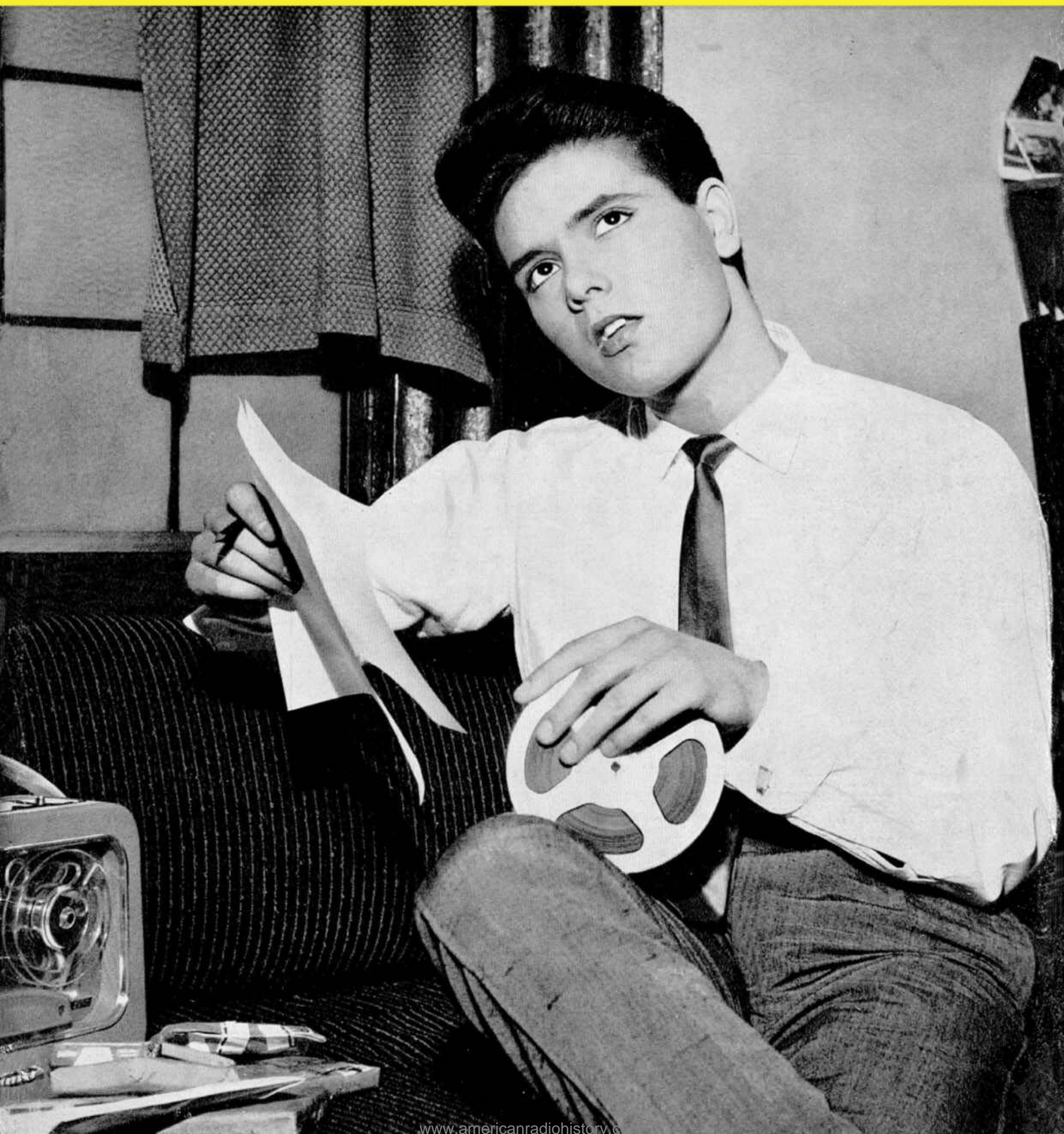
OCTOBER 1960

For full details of the
"STUZZI" range of Tape Recorders

Write to: RECORDING DEVICES LIMITED
DEPARTMENT A.T.R.

44, SOUTHERN ROW,
KENSINGTON, LONDON, W.10.

Telephone: LADbroke 4775/6

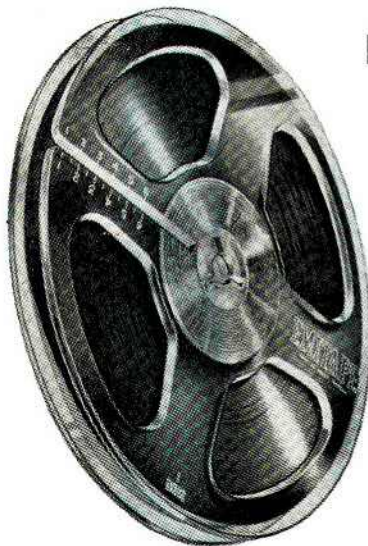


*The popular Tape
with Price Appeal!*

NEW

Emitape

"44"
ACETATE



MAGNETIC characteristics

as for Emitape "88" and "99"

- 4 spool sizes ● High sensitivity
- Anti-static ● Low 'print through'
- Metallic contact strips for auto-stop on all but the "message" spool

TYPE NO.	TITLE	SIZE	LENGTH	PRICE
44/3N	"Message"	3½"	175'	6 9
44/6	"Junior"	5"	600'	18 0
44/9	"Continental"	5½"	850'	1 4 6
44/12	"Standard"	7"	1200'	1 10 0

The complete range

EMITAPE "77" 'Pen-tested' for professional use

EMITAPE "88" General purpose

EMITAPE "99" Long Play

EMITAPE "100" Double Play

and

EMITAPE "44" Popular (Acetate)



E.M.I. SALES & SERVICE LTD. (Recording Materials Division) Hayes, Middlesex. Tel: SOUthall 2468

ES/8/76

The **WINSTON** *'Thoroughbred'* *wins on all points!*

Forget, for a moment, its moderate cost. Consider only the acknowledged technical advantages of the Winston 'Thoroughbred'—its many exclusive features and refinements. No wonder this most dramatic achievement in better-value Tape Recorders leads the field!



✱ **Three speeds: 15, 7½, 3½ inches/sec.—gives 3 hrs. 12 mins. playing time.**

✱ **Twin track recording.**

✱ **Three loudspeakers ensure live, natural tone for speech or music.**

✱ **1,800 ft. spool of long-playing tape supplied —plus high sensitivity microphone.**

✱ **Built-in mixer unit enables you to record your voice with standard disc recordings, radio or live music.**

✱ **Built-in public address system.**



FREE

This practical, informative booklet tells you how to make the most of your 'Thoroughbred'—suggests various uses, gives expert information on recording techniques. Send for it NOW.

SEE AND HEAR THE WINSTON 'THOROUGHbred' AT YOUR DEALERS

ALL THIS FOR ONLY 59 GNS

or £12-8-0 deposit and 12 monthly payments of £4-9-3

NO EXTRAS

**WINSTON ELECTRONICS LTD.
GOVETT AVENUE, SHEPPERTON, MIDDX.**

Tel: Walton-on-Thames 26321.

Cables: "Winston" Shepperton.

Enquiries from the Retail Trade are welcomed.



Half the fun
of owning a tape recorder
lies in discovering

the hundreds of different,
exciting things you can do with it.

This free book written for you
by twelve top stars is full of fun,
entertainment and ideas.

Read Tony Hancock on public speaking
and Joan Regan on home movies,
see what David Nixon

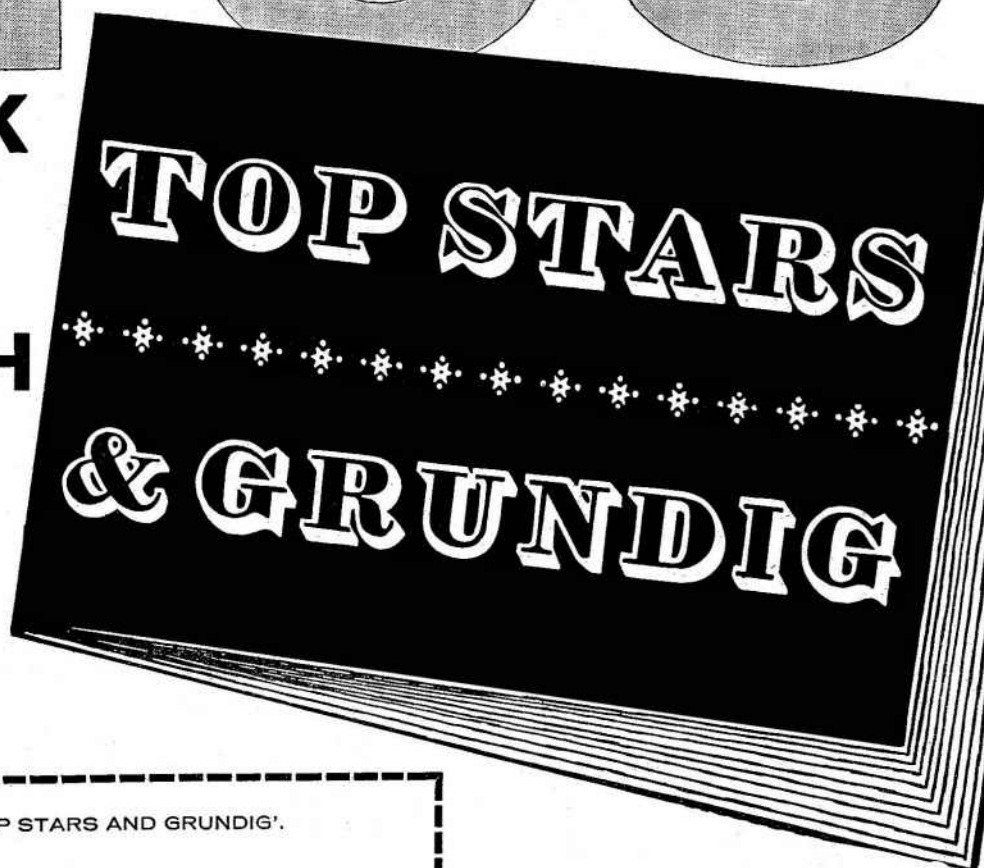
Eric Robinson and many other
names in show business have to say
about their tape recorders;

write today for a copy of
'TOP STARS AND GRUNDIG'.

free

BOOK OF THE MONTH

for
tape
recorder
fans



Please send me my free copy of 'TOP STARS AND GRUNDIG'.

NAME.....

ADDRESS.....

NEAREST TOWN.....

GS.AMT 247

GRUNDIG (GREAT BRITAIN) LTD.

Advertising & Showrooms:

39/41 New Oxford Street, London W.1.

Trade enquiries to:

Newlands Park, Sydenham, S.E.26.

(Electronics Division, Gas Purification & Chemical Co. Ltd.)



Only with **FI-CORD** can you have it both ways—really HI-FI and really portable

Don't be misled by the compact size. The **FI-CORD** is a high fidelity instrument of advanced scientific design—assuring true-to-life recordings.

Frequency 50-12,000 c.p.s. \pm 3db. Tape speeds $7\frac{1}{2}$ i.p.s. and $1\frac{1}{2}$ i.p.s. Twin track record/playback, using standard $3\frac{1}{4}$ " spools.

Wherever you go, you can take your **FI-CORD** with you, it is ideal for adding

the realism of sound to movie films.

The **FI-CORD** weighs only $4\frac{1}{2}$ lbs., measures $9\frac{1}{2}$ " x 5" x $2\frac{1}{4}$ ", operates in any position (lid open or shut) and requires no power point. It runs on 4 batteries, rechargeable from the automatic charger supplied.

Built-in speaker. Full playback volume. Extension speaker socket. Dynamic microphone with stop/start switch.

*CATCH IT—
AND KEEP IT—WITH*

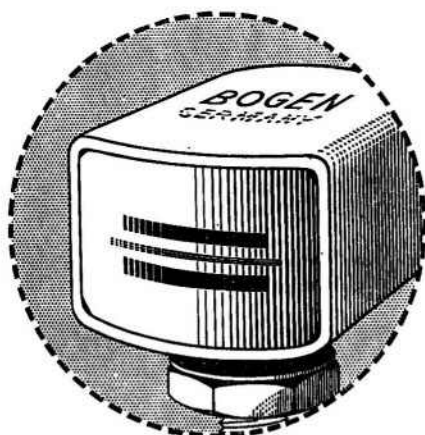
Write for name and address of your nearest stockist to:—

FI-CORD Ltd · 40a Dover St · London · W1
Tel: HYDE PARK 3448

FI-CORD

Complete with
Microphone, Tape,
Batteries and Charger **59** GNS
or with Gramplan DP4/M
Microphone **66** GNS

When
you buy
a
Recorder
2 or 4
Track
look for
the name



BOGEN

on the heads

BOGEN Tape Heads are used in the finest equipment throughout the world by broadcasting authorities, laboratories, industry, etc. They are also to be found in more and more of today's best known British and Continental domestic recorders. They are made in West Germany by Bogen, who specialise exclusively in the design and manufacture of magnetic heads to extraordinary high standards. Through **BOGEN**, four track domestic stereo and/or mono recorders are made possible, doubling playing time and providing at $3\frac{1}{2}$ i.p.s. standards better than those often associated with twice or four times that speed. These heads are available to individual users as well as manufacturers. They are also the same as those used by some commercial producers of pre-recorded stereo tapes. With **BOGEN** you are assured of finest possible recording and reproduction, long working life, and true dependability.

HOW FINE A GAP?

In 1957, Bogen produced heads with a gap of less than 0.00004in. (1 micron) with linear response 30-16,000 c/s at $1\frac{1}{2}$ in. Consistent with the best currently available equipment, it has been found that a gap of 0.0001375in. as at present standardised by Bogen gives not only the very finest reproduction, but ensures long working life with maximum dependability. Bogen 4-track heads were first available in 1959.

BOGEN 4 TRACK STEREO/MONO HEADS

For Record/Replay and Erase. Easily fitted to existing decks. They are characterised by the same precision standards of manufacture as Bogen heads costing over £100 per piece.

- **FREQUENCY RESPONSE** 30 —16,000 c/s at $3\frac{1}{2}$ i.p.s.
- **MAGNETS** — Of special laminated steel, finished to micro-precision standards.
- **GAP** — 3.5 microns (0.0001375in.) per channel ground and lapped.
- **CONSTRUCTION** — to very small size. Mirror smooth face to tape. Fully screened.
- **WORKING LIFE** — 10,000 working hours. Equal to 10 years normal use in a domestic recorder.

PRICE—Set comprising 4-track record/replay head and erase head, retail—15 gns.

Full information from:

Gopalco Ltd. 1 Long Acre
London. W.C.2

TELEPHONE: COVent Garden 2052

NO INTEREST CHARGES! FREE EXTRA TAPES! FREE CARRIAGE! WEST END SHOWROOM! FOR ALL THE BEST IN TAPE RECORDING!

4 TRACK PHILIPS 3 speeds, 7in. spools, moving coil mike, Wonderful value 59 gns. or £6 deposit and 38 weekly payments of £1.8.6.

4 TRACK PHILIPS $3\frac{1}{2}$ in. per sec., takes 7in. spools, including high sensitivity crystal mike. 34 gns. or £3.14.0 deposit and 38 weekly payments of 16/11.

4 TRACK STEREO/MONO KORTING $3\frac{1}{2}$ in. per sec., 7in. spools. 68 gns. or £7.8.0 deposit and 38 weekly payments of £1.13.9. We supply ALL makes. 12 to 24 months H.P. with 20% deposit

NEW SEASON'S GREAT TAPE BARGAIN!

7in. 1,800 ft. Polyester base. Brand New. Generally priced at 50/-

32/6 P. & P. 1/6

Send S.A.E. for our Bargain Tape list, all sizes from 3in. to 8 $\frac{1}{2}$ in.

DEMONSTRATION MODELS!

GRUNDIG	TK 35	69 gns.
"	TK 30 with mike	68 gns.
"	TK 25 with mike	52 gns.
"	TK 20 with mike	39 gns.
"	TK 5 with mike	35 gns.

30 other Recorders including Fi-Cord, Stuzzi, Philips, Harting, Ferrograph, etc., at Bargain prices. S.A.E. for list.

● We specialise in the Repair of Recorders, Mikes, F.M. Tuners, Hi-Fi Equipment, etc.

E. C. KINGSLEY & CO.,

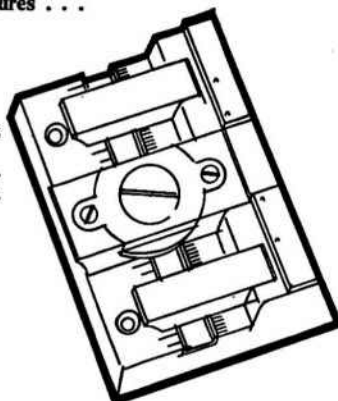
132, Tottenham Court Road, London, W.1. (Corner of Warren St.)

Telephone: EUSon 6500

EXCITING NEWS! HERE IS THE NEW METRO-SPLICER

Look at these unique features . . .

- * Splices Recording Tape and 8 mm. Cine Film.
- * Interchangeable channels.
- * Calibrated in inches and millimetres.
- * Non-Magnetic Stainless Steel Blade cuts at any angle.
- * Transparent cutter unit for accurate cutting.
- * Replacement cutter unit supplied with splicer and spares obtainable from your dealer.
- * Moulded in High Tensile Nylon.
- * Impervious to jointing compounds.
- * Spring-loaded clips.
- * Countersunk fixing holes.
- * Scraper tool for film emulsion removal.



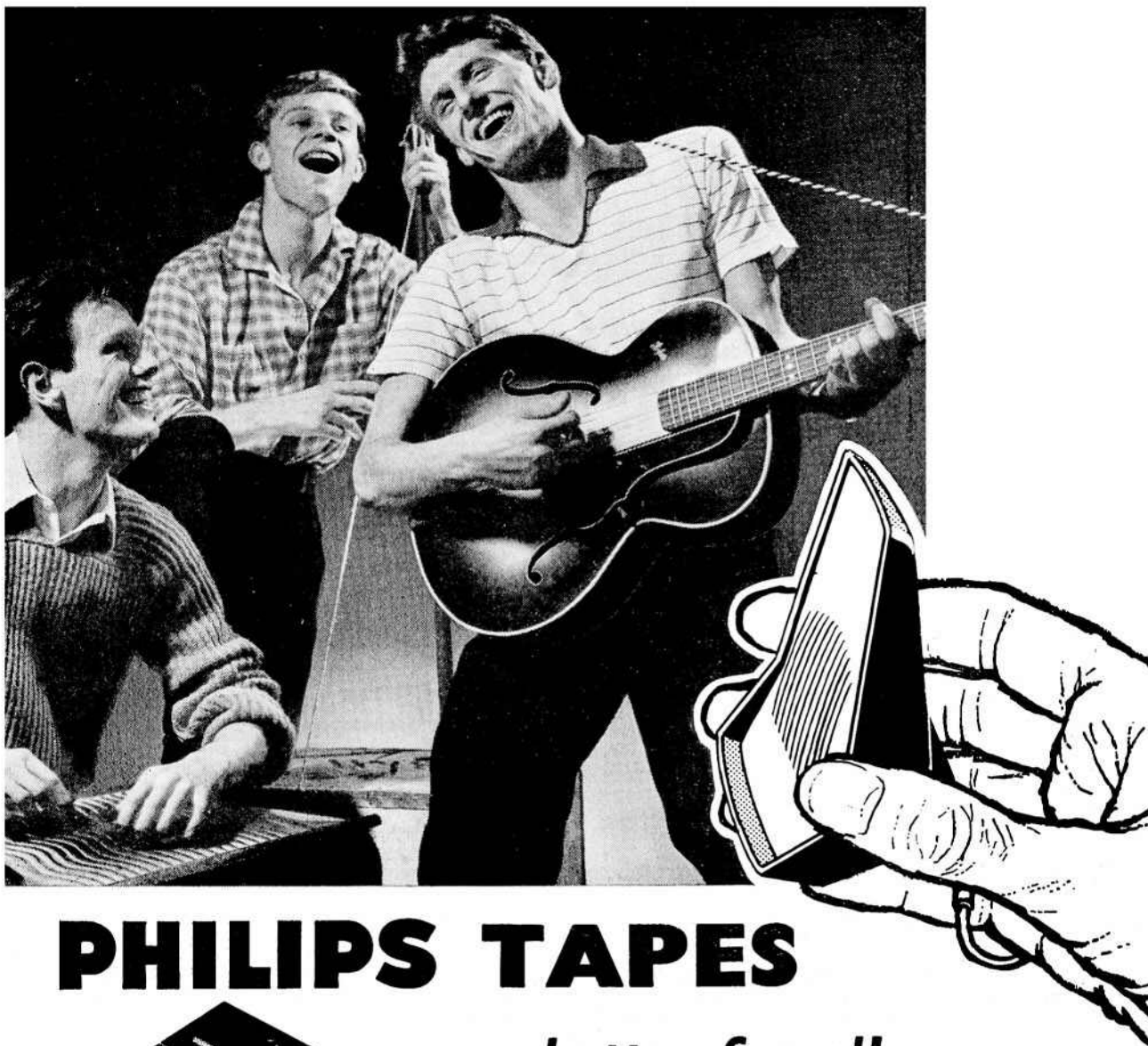
Tape Splicer Kit complete with Scraping Tool and spare cutting Unit 15/-
Spare Cutting Units 2/6 each
Spare Scraping Tools 1/- each

Patents Pending

IT'S THE SPLICER OF A LIFETIME!

For illustrated leaflet write to Sole Manufacturers:—

The METRO-SOUND Mfg. Co. Ltd.
19a, Buckingham Road, London, N.1. (CLIsold 8506/7)



PHILIPS TAPES



- Strong pvc base.
- Resistant to stretch, snapping and tearing.
- Powerful adhesion of magnetic coating.
- Unvarying high-quality performance.
- Standard, long-play, and double-play tapes available.

...better for all tape recorders!

On any tape recorder, Philips Tape gives you better results. It has great sensitivity, a very wide frequency range, and extremely low noise level. This superlative tape is equally good for music or voice recording. Available in all reel sizes from 3", 5", 5 $\frac{3}{4}$ " and 7". For those building up a tape library, Philips 5", 5 $\frac{3}{4}$ " and 7" reels are specially packed in durable books designed for convenient storage, and quick easy reference.

PHILIPS ELECTRICAL LIMITED • CENTURY HOUSE • SHAFTESBURY AVENUE • LONDON • WC2





BRITISH RECORDING CLUB MEMBERSHIP FORM

FULL MEMBERSHIP 27/- PER ANNUM

To: THE SECRETARY,
THE BRITISH RECORDING CLUB,
145 FLEET STREET, LONDON, E.C.4.

Dear Sir,

I wish to become a member of The British Recording Club. I enclose my membership fee of twenty-seven shillings (27/-), which includes my annual subscription to the "Amateur Tape Recording" magazine.

Name

Address

Date

Type of Recorder Used

ASSOCIATE MEMBERSHIP 5/- PER ANNUM

To: THE SECRETARY,
THE BRITISH RECORDING CLUB,
145 FLEET STREET, LONDON, E.C.4.

Dear Sir,

I wish to become an associate member of The British Recording Club. I enclose my annual subscription fee of five shillings (5/-).

Name

Address

Date

Type of Recorder Used

Associate Members DO NOT receive "Amateur Tape Recording" magazine, but are entitled to participate in the Club's Tapesponding activities and any other services which become available.

MEMBERS WISHING TO "TAPESPOND"

ARE REQUESTED TO COMPLETE THE FORM BELOW

I would like to Tapespond and agree to my name and address being published. I also agree to acknowledge all replies I receive in response to my entry in the Directory.

Name Age if under 21

Address

BLOCK LETTERS PLEASE

Interests Club Number

Taste in Music

Type of Machine Used Size of Spool

Tape speed(s) Occupation

Which part of the world do you wish to contact?



COVER STORY

ON OUR COVER, Cliff Richard considers one of the entries in the Stuzzi Talent Competition.

The competition was open to anyone who could sing or play an instrument. All they had to do was submit a tape recording of themselves, with a maximum running time of fifteen minutes. Literally hundreds of taped entries were received including some from overseas, and they must undoubtedly make this the best-supported tape contest held in this country to date.

The magazine DISC sponsored the contest and had its editor, Gerald Marks on the judging panel together with Cliff Richard, Tito Burns, his Manager, and the Recording Manager of a leading Recording company.

The winner of the contest will receive a recording test, a long week-end in Vienna with a friend, a Stuzzi Magnette and a television appearance, but he or she will have earned them, for the standard of entries has been very high.

Apart from the taped entries, auditions were held every day between 4.30 and 6.30 p.m. in the Stuzzi Recording Studio at the recent Boys' and Girls' Exhibition at Olympia. When two contestants, Bob and John Allinson were auditioned there, the spectators were so enthusiastic that they mobbed them immediately after for autographs.

A full report of the results of this contest will be given in next month's A.T.R.

amateur

TAPE RECORDING

for the tape enthusiast

THE OFFICIAL MAGAZINE OF THE BRITISH RECORDING CLUB
(INCORPORATING THE BRITISH TAPE RECORDING SOCIETY)

VOL. 2 No. 3 OCTOBER, 1960

Club, Editorial and Advertisement Offices:
145 Fleet Street, London, E.C.4.

Telephones:

Club and Editorial: Ludgate Circus 7918
Advertisements: Fleet Street 7732/2110

Editor

ROBINSON P. RIGG, M.B.K.S.

Deputy Editor

K. W. PETERS

Technical Editor

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

Technical Adviser

F. WINSTON REYNOLDS,
A.M.Brit.I.R.E., M.I.W.M., M.Inst.P.

Club News Editor

T. NURSE

Advertisement Manager

J. A. PEARCE

CONTENTS

WORLD TAPE NEWS	8
TAPE TABLE <i>Leo Lambourne</i>	10
JAN GOES TO WAR <i>Jan Phillips</i>	13
CLUB PICTORIAL	16
TAPE CLUB NEWS	17
CLUBMAN PROFILE	21
SCHOOL CLUB AT WORK <i>Dr. C. A. Smith</i>	23
THE MYSTERIOUS DECIBEL	26
WHAT IS . . . ? <i>Fredericks</i>	28
DEAR SIR . . .	32
FUR CRYING OUT LOUD <i>Lorna Gulston</i>	35
INTER-TAPE DIRECTORY	37
TAPE AND DISC REVIEW <i>Stanley R. White</i>	41
RADIO SHOW REPORT <i>Stephen Ross</i>	44
SHOP WINDOW	46
REVIEWING EQUIPMENT <i>F. C. Judd</i>	48
HOME-VIEW	50
Export Mannequin Tape Recorder Armstrong T4 VHF-FM Tuner	

TAPE RECORDERS are no longer regarded as specialised instruments for professionals or enthusiasts. We have never thought of them so narrowly, but many people have, not least the radio and television manufacturers.

Up to date tape recorder sales have taken a third place to radios and television sets, and the big manufacturers who are interested in mass sales did not regard the recorder market as being sufficiently large to justify introducing models. As a result tape recorders were made by a number of specialist firms which have no stake in the radio and T.V. field. In a few years many of these firms have become household names. In fact great credit is due to them as pioneers, because through their efforts well over a million tape recorders are in regular use in Britain, and every day the number of new tape recording fans grows steadily.

We have always believed that the tape recorder market is almost limitless and that the day is not far distant when the recorder will be as much part of our lives as the telephone. It has been our pleasure and sometimes amusement over the past twelve months to observe the tentative approaches of the large radio manufacturers to probe the tape recorder market. From time to time we heard rumours that such and such a firm was going to bring out a recorder, or we would be visited by a market research executive acting on behalf of a client who wished to be nameless. It was clear that something was in the wind.

Just before the Audio Fair the first straw blew in; H.M.V., part of the vast E.M.I. group, introduced a new medium priced domestic recorder, they were quickly followed by Marconi, of the same group; then Murphy brought out their domestic machine.

Now, at the Radio Show, the interest of the radio manufacturers is evident. Pye, Dynatron, Ekco, Alba, to mention only four have all launched tape recorders—all in the medium price range, with mass sales in mind.

We welcome this trend. The interest of the radio manufacturers will mean that the tape recorder will no longer be regarded as a box to be put out of the way when not in use—soon tape recorders will help sell radios and T.V. sets by being incorporated in attractive consoles ready to blend with modern furnishing designs. New sales trends will mean more competition, more improvements in design, possibly lower prices. The manufacturers will do all they can to make Britain tape minded.

Now is our chance to welcome newcomers to the hobby of recording sound. The British Recording Club has its own request programme on Radio Luxembourg, at 7.30 p.m. on Fridays followed by Grundig's own programme aimed at sports fans. These two programmes should certainly establish tape recording in Radio Luxembourg listeners' minds and Club members must expect many enquiries!

We anticipate a considerable increase in the number of registered tapersponders this winter. When the new names appear in the directory, please widen your circle of friends to include them.

Members of local tape recording clubs have a wonderful opportunity to recruit new members, and, from what we hear a number of manufacturers are making special plans to provide lectures and demonstrations for the asking. Don't forget, your closest neighbours may not have heard of your club, so organise at least one event this winter which will attract local publicity—and more members.

Make no mistake about it—tape recorders will be in the news from now on, and so will be those who use them.

The title *Amateur Tape Recording* is registered at Stationers' Hall, London. The contents are copyright and may only be reproduced by permission of the Proprietors. Signed articles represent the views of the authors and are not necessarily those of the editor.

October, 1960

Chitnis 4 TRACK STEREOPHONIC RECORDER 9/S4K



truest to the original

There is no doubt which recorder you will buy when you see and hear this 4-track Stereophonic Model, for it has so much to offer both to professional and domestic users alike. The incorporation of world-famous Bogen heads with an advanced powerful twin amplifier system provide sensationally brilliant standards of reproduction at a tape speed of only $3\frac{1}{2}$ inches per second. Mechanically, too, the Chitnis 9/S4K is a masterpiece of efficiency and dependability. Response to all controls is instantaneous; a self-locking arrangement prevents accidental erasure of wanted material. **YOU CAN USE THIS RECORDER FOR STEREO OR MONO AS REQUIRED.** Four track facilities double the playing time of each reel and halve tape costs. Controls are very well positioned, and the complete instrument (with its own built-in loudspeaker for monitoring, etc.) is housed within a case of remarkable compactness and elegant modernity.

- ★ **RESPONSE** 30-16,000 c/s
 ± 3 dB at $3\frac{1}{2}$ i.p.s.
- ★ **INPUTS** Radio (2) Pick-up
(2) Microphone (2)
- ★ **OUTPUTS** 2—5 ohms; 2
at 15 ohms; 2 low level
- ★ **SIGNAL-NOISE RATIO**
Better than 55dB

★ **Pause, superimpose, monitor, etc.** Size $13" \times 10\frac{1}{4}" \times 6"$

From good stockists Leaflet on request

CHITNIS ELECTRONICS LTD.

1 Long Acre, London, W.C.2

Telephone COvent Garden 1918/9

**62
GNS**

● **FOR STEREO
AND MONO**
● **BOGEN HEADS**
● **PAPST MOTOR**
 $3\frac{1}{2}$ i.p.s.
15-ohm OUTLETS

WORLD TAPE NEWS

CLUB MEMBER'S TAPE TO QUEEN

Mr. Willy Daelemans, B.R.C. member in Belgium, and a friend came to London recently to attend a Royal Garden Party and receive an award for resistance work during the last war. They were so moved by their chat with the Queen and Queen Mother that they made a tape of their impressions which they sent to their tape pal Mr. H. W. M. Gibbons. He in turn was so taken with the result that he sent a gift copy to the Queen from whom a reply was received saying she would be delighted to retain it.

TEN MILES OF IRISH

Owen B. Hunt from Philadelphia, and originally from Sligo, has what he believes is the largest collection of Irish folk music and song in the world. He has 50,000 feet of recorded tape, including 560 separate tunes and almost as many songs.

AIRBORNE VOICES

Many communist bandits hidden in the Malayan jungle are surrendering as a result of hearing the 'Voice Flight' of the Far East Air Force. Thousands of these flights have been made over the last six years, broadcasting to the jungle below tape recordings made by captured and surrendered terrorists to be heard by their former comrades.

The flights are being made by two Dakotas at present. They are fitted with special sound equipment for broadcasting from a height of 2,500 feet with an audible range three times that distance. To achieve this via the four loudspeakers fitted under the fuselage, a diesel motor is used which generates a speaker output of 2,000 watts.

TAPE RECORDER PRIZES

Tape Recorders are rapidly becoming the favourite prizes of competition organisers. Our illustrations clearly show that the winners are in favour of them too!



At the recent Soho Fair, Miss Joanna Dene is seen receiving her Wyndor 'Victor' tape recorder as representative of the dozens of wonderful prizes she received on being elected Soho Beauty Queen of 1960.

Also in the picture is Geoffrey Raynes, Chairman of the Soho Fair Association, and the French cabaret star Irene Hilda, who presented the prize.



Mr. Thomas Birch, 46 years old Cotton Drawer of 'Melroyd', Kirkham Road, Freckleton, Nr. Preston, Lancashire, being presented with a Grundig Cub by Entertainments Manager, Mr. C. F. 'Johnny' Johnson, while Redcoat Shirley Merrett looks on.

Mr. Birch, a keen 'tape' fan already, won this recorder as first prize in the Grundig Command Performance held at Butlin's Holiday Camp, Pwllheli.

"THE END OF THE LINE!"

Passenger tramcars are fast disappearing from the towns and cities of Britain and to mark their demise in favour of buses in the City of Leeds, the Corporation laid on ten special trams to travel the last two routes with civic and transport officials and 600 tramway enthusiasts from far and wide!

To commemorate this and to preserve on tape some of the sounds that are now no longer heard in the city, M. B. (Mick) Drury a local tape fan wrote and edited a short feature tape entitled 'The End of the Line!' The on-the-spot recordings and a speech by the chairman of the Transport Committee were secured by his totally blind friend James E. Hodgson using a Simon SP/2 and a 12 volt Valradio converter.

No mixing was used. All the selected items were copied on to one tape in random order, the fades being anticipated and made at this juncture, and finally cut into script continuity. The result has received favourable comment from all who have heard it both here and abroad and a copy has been requested and supplied for use by the City Museum.

A transport section of the museum is planned to include a real tramcar. It is envisaged by the Director that a push-button play-back in the car will make available to visitors the sounds made by these iron monsters and captured on this feature tape—to the wonder of the young, the chagrin of the old, and the delight of all tramway enthusiasts!

FLASHES

Taped message from Anthony Hancock to the people of Cheam: "Don't lose heart—just say you are from Sutton!"

American beatnik poets may be heard on tape at the next Edinburgh Festival.

Defendant accused of maliciously damaging two records of Lonnie Donegan's 'Battle of New Orleans' pleaded that it was an 'Un-British' record, and played a tape recording of it in court to prove his point. Fine £10.

The finest
kit-sets



in the
World

When adding to your
HI-FI EQUIPMENT
(TAPE, RECORD or RADIO)

you cannot afford to miss
considering models in the
world-famous
HEATHKIT range.

**YOU WILL ENJOY
BUILDING THEM!**

*Absolutely no previous
electronic or soldering ex-
perience necessary. Just
follow the simple step-at-
a-time well illustrated
Instruction Manual
provided.*

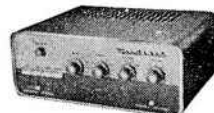
Kits include:—

TAPE AMPLIFIERS (playback & recording)
HI-FI AUDIO AMPLIFIERS
SPEAKER SYSTEMS
F.M. TUNERS
EQUIPMENT CABINETS

as well as

**TAPE DECKS, RECORD PLAYERS,
PORTABLE RADIOS, 'HAM' GEAR
AND TEST EQUIPMENT.**

**35 DIFFERENT MODELS
ARE NOW AVAILABLE**



AMPLIFIERS
6W Stereo £11. 8.0
16W Stereo £25. 5.6
12W Mono £ 9.19.6

**TAPE (RECORDING &
PLAYBACK)**
Stereo £22.4.0
Mono £16.4.0



**SSU-1 SPEAKER
SYSTEM**
Pedestal £11.12.6
Bookcase £10. 5.6



**THE 'COTSWOLD'
Speaker System**
(£19.18.6)



'CHEPSTOW' (£10.10.0)
Cabinet



'GLOUCESTER' (£15.18.6)
Cabinet

All models free delivery U.K. Deferred Terms over £10

*** POST THIS COUPON NOW FOR
FURTHER INFORMATION**

DAYSTROM LTD.

**DEPT. AT10
GLOUCESTER**

Please send me, **FREE** and without obligation:

(a) **FULL BRITISH HEATHKIT CATALOGUE** and

(b) Full details of models

(Block capitals please)

NAME

ADDRESS



The Tape Table

by Leo Lambourne

photos by
Diamond Films, Slough

WE ALL HAVE OUR DREAMS. Mine is of a sitting room containing a radio, television, record player, Cine Sound Projector and a tape recorder all connected to a single pair of matched speakers built into the walls, and all giving the same quality and range of audio reproduction. The actual sets, except for the T.V. screen of course, are built into the normal room furnishings, so that it isn't obvious that we are surrounded by electronics, and my wife can do the dusting without having to cope with a number of boxes either with or without legs.

I suppose it is possible to realise the dream, even today, but not on my income. However, I have made a start.

For a long time I have been looking for an ideal tape recorder, but felt that the present range of machines, excellent though they are, are not really designed as permanent fixtures in the sitting room, and, to obtain sound reproduction comparable to a Hi-Fi record player, one must use a Hi-Fi speaker system. We have a record player which gives me the quality I want—an R.C.A. President with a multiple speaker system which I felt the tape recorder should utilise on play-back.

Our sitting room is already overfull, and it was impossible to introduce the recorder as a separate entity—it had to be incorporated in an existing piece of furniture. Why not a coffee table—always at hand, with a tape deck convenient to control from an armchair and completely concealed until required?

I had seen in the Design Centre in London an upholstered seat cum table made by Fyne Lady of Banbury which my wife and I liked and which provided an additional function, that of an occasional seat. The table top was loose and was reversible, with an upholstered seat on the underside.

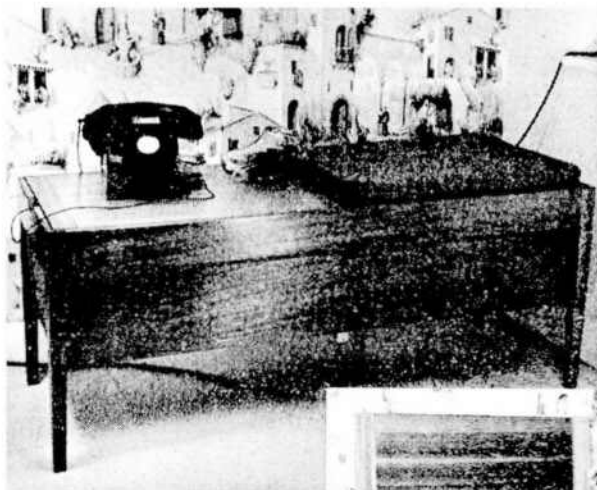
All that was needed now was a container to be fitted under the seat/table to hold a tape deck, power pack, and pre-amplifier (playback would be through the record player amplifier and speaker system). The dimensions of the Fyne Lady table seemed right; it was 3ft. 6in. long by 1ft. 4in. wide and 1ft. 4in. high, the length being divided into two 18in. internal sections.

I approached the manufacturers and they modified a standard table to contain a 'box' with open ends, covered with fabric screens (for ventilation) which fitted inside the table frame under the top.

Next I bought a Wearite 4S tape deck (which has provision for a stereo operational head when required) and a Stern's high fidelity tape pre-amplifier Type 'C', having first checked with British Ferrograph Ltd. (tape deck), R.C.A. (Gt. Britain) Ltd. (record player) and Stern Radio Ltd. (Pre-amp unit) that the three units would match.

The job of fixing up the equipment was divided into three main sections:

- (a) Modification to the record player.
- (b) Wiring and assembly of the tape deck, pre-amp unit and power pack into the coffee table/seat.



Telephone conversations can be taped any time now.

The tape recorder as a telephone stool. The upholstered seat can be reversed to form a table top. The telephone is connected to the deck through an Acos telephone adaptor.



- (c) Construction and assembly of the interconnecting leads, plugs and sockets.

MODIFYING THE RECORD PLAYER

First I ensured that it was disconnected from the mains and then 'got at' the amplifier through the removable panel at the back. Without disconnecting the wiring to the pick-up and speakers I lifted the amplifier clear and located the control panel, from which I was able to trace the screened lead to the pick-up. I unsoldered it from the terminal strip and connected a length of co-axial cable to the points vacated. Then both the leads were taken to a Painton 6 Pole Socket (type S6/MFE) which I mounted on a small paxolin panel, the pick-up lead going to terminal 1, and the lead to the control panel to terminal 2. By this means the output



Transcribing from the Fi-Cord portable recorder. Location recordings are transferred to the larger tapes and played back through the R.C.A. speaker system (right).

from the pick-up could be fed to the tape pre-amp record input through terminal 1, and the tape play-back would operate the speaker through terminal 2.

Another of my requirements was that the tape deck should be connected to the record player by a single cable assembly to carry (a) input from the gramophone pick-up to the record leads, (b) output from tape play-back to the speaker, (c) the mains leads to the tape deck power-pack. There is considerable risk of mains hum pick-up in this arrangement and for this reason one is advised not to put mains leads near to audio leads. So I experimented, and I found that in my case (but I wouldn't like to say it would happen to everyone), mains hum was induced at the terminal points of the plugs and sockets where the co-ax copper braids were stripped back from the audio leads themselves. I made up small copper earthing plates which I soldered across terminals 3 and 4 of each Painton plug

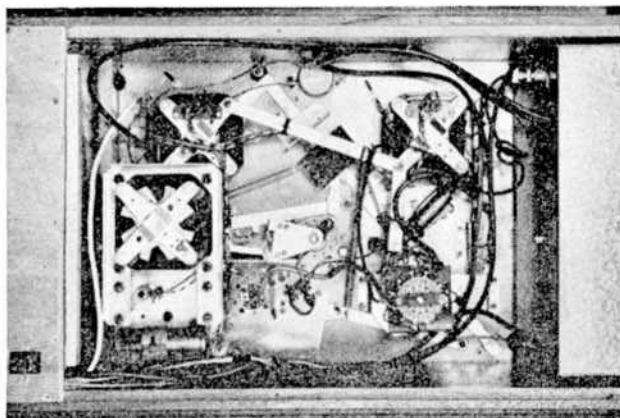
and socket to complete the screening of the audio from the mains leads. The co-ax braids were soldered to the copper earthing plates. This eliminated all hum induced by the mains leads.

Two P.V.C. covered mains leads 12in. long were taken from the solder tags on the record player mains transformer (mains side) and connected to the terminals 5 and 6 on the Painton socket. The Paxolin socket panel was screwed to the back of the record player, and that job was done. One more thing though—I made up a Painton plug (type P6/MFS) soldering a wire across terminals 1 and 2 to complete the circuit from pick-up to control panel when the tape deck was not in use. This plug was hung alongside the socket for easy location and insertion.

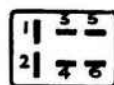
WIRING UP THE TAPE DECK AND PRE-AMPLIFIER

I will not describe the connections between the tape deck, the pre-amp unit and power pack in the coffee table, because these are given in great detail in the instructions supplied by Stern's and Wearite. One modification to the power pack was required, however; as the only on/off switching is in the

The underside of the tape deck. Note the pre-amp unit on the right, and the interconnecting plug on the left set into the base of the Power Pack compartment which is also used as a tape store.



CONTACT NUMBERING



VIEW LOOKING DIRECTLY ON SOLDERING TAGS

The contact points of the Painton 6 pole plugs and sockets. Terminal 1: record player pick-up lead; 2: lead to record player amplifier; 3 and 4 joined by earthing plate to which the co-ax braid is soldered to screen 1 and 2 from 5 and 6 (mains lead terminals).

record player the power pack switch terminals had to be converted to tape deck mains connections. The red and black wires leading from terminals 1 and 2 on the power pack were disconnected from their existing points and reconnected in parallel with the incoming mains leads and the tape deck mains leads were taken to terminals 1 and 2 of the power pack. The external mains leads to the power pack were taken to terminals 5 and 6 on the Painton plug (type P6/MFE) fitted to the underside of the table. (Continued on page 53)

TAPE TABLE COMPONENTS

Fyne Lady Upholstered Seat/Table.

Type 1878 M (Mahogany)

Type 1878 W (Walnut)

Wearite Type 4S Tape Deck

Hi-Fi Pre-amplifier Type C (matched to the individual wearite deck)

Power Pack Type C

Painton 6 pole Plugs and Sockets

Plugs: P6/MFE (panel mounting)

P6/CT (cable termination)

Sockets: S6/MFE (panel mounting)

S6/CT (cable termination)

Interconnecting Cable (6 core with two separately screened leads)

Record Player: R.C.A. President

L.M.I. 322616

Henry Stone (Furniture) Ltd.

Banbury, Oxon.

The British Ferrograph Recorder Co. Ltd.

131 Sloane Street, London, S.W.1

Stern Radio Ltd.

109 to 115 Fleet Street, London, E.C.4

Painton & Co. Ltd.

Northampton

G. W. Smith Ltd.

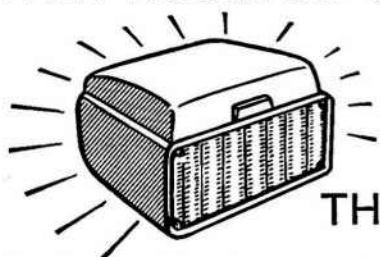
Lisle Street, London, W.1

R.C.A. (Gt. Britain) Ltd.

Lincoln Way, Windmill Road

Sunbury-on-Thames

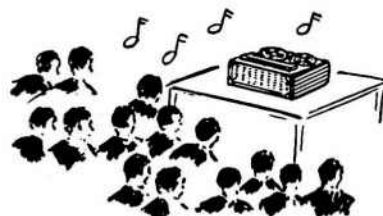
THEY **LOOK** SO GOOD



The moment you see the styling of a Truvox Tape Recorder, you know it is the machine for you. Foolproof and simple in operation with professional facilities, a Truvox Recorder will be the centre of your home enjoyment of speech and music. See them at your dealers.

THEY **SOUND** SO GOOD

You'll enjoy 'listening' more than ever before. All the technical know-how of a decade of specialisation, to give perfect sound enjoyment, is embodied in the Truvox R6 and R7 . . . the original sound *truly* recorded and *truly* re-played through *large* loudspeakers. Hear them at your dealers.



THEY **ARE** SO GOOD

That you'll never be satisfied with any other Recorder . . . once you've seen and heard them, you'll decide for yourself . . .



THEY **MUST** BE

TRUVOX

R.7

7" spools. 10 watts output.
Records/Replays both
directions. Two speakers
(Tweeter and Woofer).
Response 30-17,000 c/s.

Retail Price 82 gns.



H.P. Facilities
available.

R.6

7" spools. 4 watts output
2 speeds. 8" x 6" speaker.
Response 30-15,000 c/s.

Retail Price 55 gns.



*Ask your local dealer for a demonstration
or full details from :-*

TRUVOX LTD. Neasden Lane, London, N.W.10. (Dollis Hill 8011).



JAN GOES TO WAR

by Jan Phillips

THERE IS a flavour of the Western about the title of Columbia Pictures' galaxy production, **The Guns of Navarone**, and anyone who did not read the best-selling book of the same name by Alistair MacLean may perhaps be forgiven for jumping to the wrong conclusion about the film's story. I have (read the book that is—not jumped to the wrong conclusion) and so was not surprised at the sight of German uniforms when I arrived at the 'Guns' set at Shepperton Studios. For this is the story of a hand-picked band of Commandos on a suicide mission in the Aegean Island during the last war. Target: The Guns of Navarone.

(above) James Darren chats with Jan outside his rest cabin. Although only 24, he has made ten films already, including **GIDGET**, **OPERATION MAD BALL**, **LET NO MAN WRITE MY EPITAPH**, **ALL THE YOUNG MEN** and **THE GENE KRUPA STORY**. In **Gidget** he sang two songs and won himself a recording contract with Colpix. Since then several of his releases have hit the 'Best Seller' lists.

(right) Two of the smaller guns in the film held by two of the biggest 'guns' of the film world, David Niven and Gregory Peck. For his performance in **SEPARATE TABLES** David Niven won the coveted Oscar.

Gregory Peck and guns have been together before in films. Remember his portrayal of a man who knew he was doomed by his own reputation, in **THE GUNFIGHTER**?





*Jan interrupts the film's chief cameraman, Oswald Morris, as he works on one of the sets. He also photographed such famous films as **THE KEY** and more recently **LOOK BACK IN ANGER** and **OUR MAN IN HAVANA**.*

THE STORY

The Commandos are led by a New Zealander, Mallory, played in the film by **Gregory Peck** (American) and include an American, Miller, played by **David Niven** (British) and a Greek, Andrea, played by **Anthony Quinn** (Mexican). Well, they were the nationalities in the book! The film is one of those productions that send the Publicity men groping for new words with which to convey its magnitude to a somewhat saturated public. Personally, I feel that some of the facts that came to light during my visit will do this better than glowing words. Cost is already over two million pounds, which is not surprising when you learn that the Company was on location in **Rhodes** for three months, and their shooting film costs come out at £10-£20 per minute. One of the scenes I saw being filmed was number 1,052 and had three rehearsals and ten actual takes before the Director **J. Lee Thompson**, was satisfied that it was 'in the can' to perfection. I began to realise that being a film star was not all fun and festivals. A guide sound track is recorded with each take of a scene and is often actually used in the film, so post-synchronised dubbing (if you hear what I mean) is not the invariable rule in film making after all.

JAN AMONG THE STARS

After this particular scene had finished I spoke to some of the stars of the film. **Gia Scala**, the Irish-Italian Film Star, has one of the two coveted female parts, and **Irene Papas**, the Greek stage and screen actress, has the other. They are complete opposites **Gia** is delightfully sweet and gentle and **Irene** smoulders like a young **Anna Magnani**. **James Darren**, the youthful American singer in the part of a Soho Greek

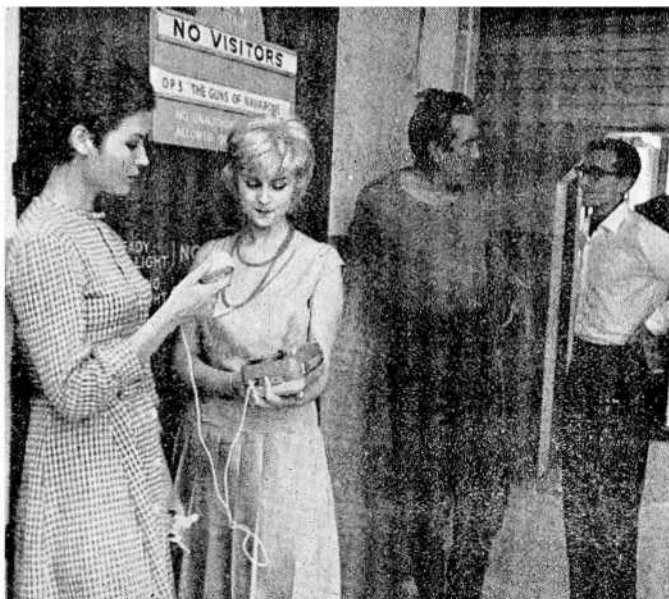
killer plays some very emotional scenes with **Irene**—and with conviction too. I said to him, "May I ask you a question?" and his immediate reply was, 'It's not true'. But he amplified this 'statement to the Press' on hearing the question, because I was only asking if he owned a tape recorder. Well, he doesn't at present but intends to get himself one when he returns to America—probably an Ampex. Whatever make he gets I know it will be of great use to him in his acting and singing careers. His recent record release in America, 'Because They're Young', climbed very high on their hit parade. Maybe it will do the same over here.

Having thought of this question about tape recorders I really went to town, cornering every star I could find, with it. **David Niven** replied, "Do you want to borrow one?" When he discovered that I didn't he said that it was just as well as his was back in Hollywood. He is a tape enthusiast—the reason? "They're marvellous for blackmailing your friends". I melted at the roguish look that accompanied this remark. Mr. Niven, you can blackmail me anytime.

ANTHONY QUINN

Anthony Quinn was my next victim. "Tape Recorder? What's that?" I produced my small one from behind me, with a magician's flourish. "Oh, I've got nothing as small as that"—I pursued the question with regard to larger models. "Yeah, I've got one back home" (he has five homes dotted about the globe) "covered with all sorts of buttons and things". As, after that I just stood and gazed up at him he seemed to feel that the interview had finished and said goodbye and departed. I was getting more and more star-struck, but managed to float on and finally ran **Gregory Peck** to earth in his rest cabin. He countered my question by saying, "Why do you ask?" I explained about 'Amateur Tape Recording' magazine, and how interested our readers

*In the film, **Gia Scala** has the difficult role of a girl who cannot speak. Fortunately for our recording interviewer, this only applied on the set. **Anthony Quinn**, seen talking behind Jan, is another Academy Award winner in the film. His most recent appearance on local screens was in **THE SAVAGE INNOCENTS**.*





*Irene Papas, the Greek star, is in familiar company in this film, for in **ATTILA THE HUN** she played the wife of Anthony Quinn, who was in the name role.*

In addition to her native Greek, she speaks Italian and English fluently, and has appeared in Greek, Italian and American films.

would be. "Sure. I have had a recorder for some time. It's back in America at present". The make? "A Wollensak". I thought this was an American recorder, but Mr. Peck thought that it was of German origin, probably made in America under licence. We are still not sure.

HAVEN'T WE MET BEFORE?

I was then taken to see Columbia's Picture Library where I was introduced to someone who was not in the film and for whom, therefore, I was quite unprepared—"my favourite" Cary Grant. When he said, "Haven't we met before," I knew it was a dream. To coin a phrase, 'If only the recorder had been going at that moment . . .'

Other stars in the film, whom I didn't meet included Stanley Baker, James Robertson Justice, Anthony Quayle, and Peter. The last named would, I am sure, have been glad to say a few words on the theme, 'If Peter Pecks Peck does Peck Peck Peter back', for he is a tame seagull who 'attacks' Gregory Peck in one scene.

BIG GUNS

Film Studios are fascinating places. As I was driven from the Sound Stage to see the 'Guns' themselves we passed flights of stairs leading nowhere, a boat on wheels, aeroplane engines, great boulders, a couple of stage coaches, and a statue of Justice wearing a gym slip with a girl's felt hat pulled down over her eyes. Somehow this last object seemed to link up with a remark made to me by a 'Guns' technician. He had mentioned that one of the five other films being made at Shepperton at present was a St. Trinian's saga!

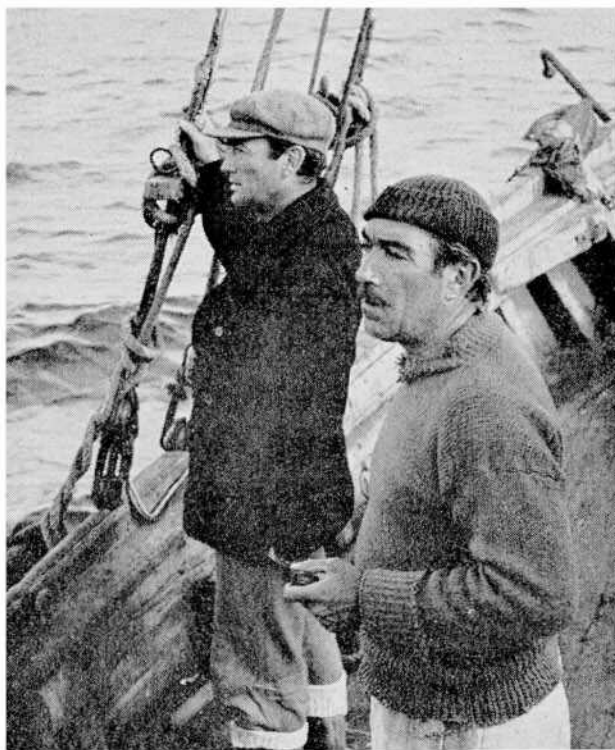
The two 'Guns' are—well they are the largest film guns ever built and the costliest 'props' ever provided for a motion picture. They are both 66 feet long, each weighs over 15 tons and yet they will be only partly visible in the film because of the huge artificial cliff-face enclosing them, which is just one illustration of the crazy mixed-up world of films. But I loved every minute of my glimpse behind the scenes and cannot wait to see the completed film; but alas I will have to until its World Premiere next March—see you there.

October, 1960



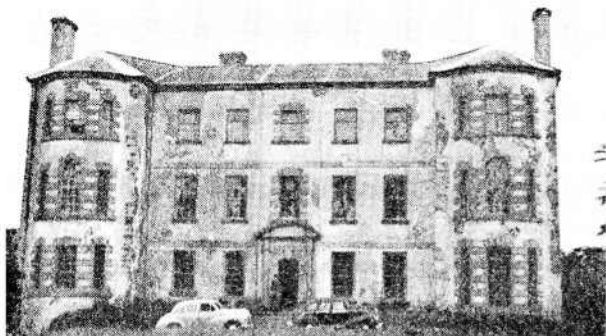
(above) A bearded Stanley Baker is seen here with David Niven on location in Rhodes.

(below) Gregory Peck and Anthony Quinn wonder whether their impersonation of Greek fishermen will convince the approaching German Sea Patrol.



CLUB PICTORIAL

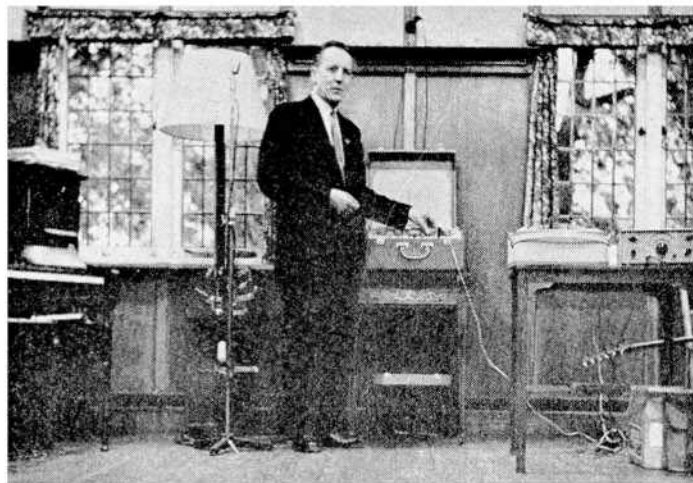
by Albert Greenway



(above) 'Gillhall Castle' a large manor house in Ulster, reputed to be haunted by the ghost of a young Irish girl burned to death there 200 years ago.

Members of Ulster Tape Recording Society arrive at the castle during their second visit, bringing with them a 'Daily Express' reporter, who witnessed the inexplicable sounds the club heard and recorded.

(right) Leicester : A flashback to May of this year, when Leicester Tape Recording Club held its own audio show at the Co-Operative Hall. Seen l. to r. are John Moule, Peter Starrie (Secretary), and John Rudkin. The headphones seen on the left of Mr. Starrie's hardworked Spectone, were multiplied together and connected to it—an answer to the unwanted distractions from other demonstrations nearby.



(above) Fred Judd, A.T.R.'s Technical Editor, gives a demonstration of Electronic Music and Musique Concrete, to the members of the Friern Barnet and District Tape Club at their pleasant and well-equipped headquarters.



Members of the Nottingham Co-Operative Tape Club examine the inner workings of a Ferroglyph, a recorder admirably suited to such an exercise, as can be seen.



ANNOUNCEMENT

Will Club Secretaries continue to send news to:—

TERRY NURSE,
161 Stuart's Road,
Birmingham 33,

not later than the 20th of the month. Send plenty of news in because **THIS IS YOUR JOURNAL**. Interesting photographs are also invited.

Edited by Terry Nurse

THE GHOSTLY NOISES OF GILLHALL CASTLE



Ulster Tape Recording Society have gained more publicity during one month than probably all the other tape clubs put together have ever done! No fewer than twelve newspapers have carried some twenty-one separate reports dealing with their exploits into recording the super-natural, including the 'Nationals'. The Secretary, Bill Scott, has been interviewed on radio and television, and extracts from the Club's recordings heard by thousands of listeners.

The visits have stirred the interest of a Psychic Research Group, who are to continue the investigations and compare results with those of the Ulster Club. Spiritualists, hypnotists, and psychic investigators, as well as the curious, have made their way to the U.T.R.S. Clubroom.

Now, in the light of all the information gathered on the club's three visits, we can publish a composite report on what the club actually saw, heard, and recorded.

There have been many reports of ghostly noises being heard at this gaunt grey manor house, with weeds creeping up the steps of its impressive entrance and gaping holes in its floors and ceilings. Out of several suggested locations for the club to make attempts at recording the supernatural, Gillhall was chosen by them as the one most likely to be genuinely shrouded in mystery.

The visits were kept secret, and precautions taken to prevent any of the 'locals' playing practical jokes or creating artificial 'ghosts'. That the sounds heard were mortally made can be discounted, and only two alternatives are left. Possibly some of the noises could be attributed to the settling-in of the old timbers for the night—or to rats, with which the building is infested. But the sounds the club recorded all came from one room, a cellar, and they were far too frequent and diverse for this to provide a satisfactory explanation. Metallic crashes, tapping noises, a gong, creaking floorboards, distinct coughs, groans, a squawking, heavy thuds, and accompanying these a background noise which sometimes (and I have heard it myself from recordings supplied to me by the club) rises to a crescendo almost like a wild animal's roar. No, these sounds were not made by mice!

Let me briefly survey the three visits. On the first, thirteen members led by their Secretary, William Scott, and including his 16 year old daughter, Evelyn, a *Daily Express* reporter, and a psychic investigator, Mr. Brian Hinchley, took some seven recording machines, batteries, rotary converters, mixer-unit, amplifier, and microphones with them. Mr. Hinchley supervised the drawing of chalk circles and symbols, and the placing of iron pipes and other objects intended to attract their host, the ghost! Metallic tapping sounds were heard at about 2 a.m., but on investigation they ceased. Two objects had mysteriously moved in the cellar below (from where the tapping had come). The key of a door had been turned, an urn-handle had been moved, an iron-bar was found at right angles to the position in which it had been left, a paint pot and brushes had been shifted two yards from a wall to a pipe from which they fell as the witnesses approached. Sounds heard in the stillness of the night, in the club's temporary control station, were monitored and recorded. Although a battery of microphones was positioned all over the building, all the noises came from a basement room.



On the second visit to the castle, with a *Belfast Telegraph* reporter, and Miss Sheila St. Clair, investigator and lecturer in supernatural phenomena, as independent witnesses, even stranger noises were heard. Miss Clair positioned the ghost attracting devices, and ringed them with tar and flour to show the footprints of any mortals who tampered with them. Then, as the members waited, eating their suppers in the only furnished room, they thought they saw the door of the control room move, although it was blocked by a stool. A few minutes later a metallic crash was heard from the cellar. On the stroke of midnight a gong sounded, then came the squawking sound, the scraping noise, the thuds and the coughs. Finally, a rumble from the cellar microphone as though it were being moved.

On the third visit, with a broadcasting representative, the noises again occurred.

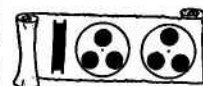
The latest development in this true ghost story has been an indication from the Belfast Psychic Research Group that they are to investigate the sounds using a different approach to the tape club. There are many who await their findings with great interest, including your apprehensive sceptic of a club news editor.

The U.T.R.S. Press Correspondent, Mr. Charles J. Monaghan, would like to stress, on behalf of his club, that their visits "were purely for recording experiment", and that they are "not interested in the psychic or super-natural aspects" of their recordings.

Enquiries regarding membership of the club should be addressed to the Secretary, W. J. Scott, 41 Haypark Avenue, Belfast 7, Northern Ireland.

THE CENTURY

What zest and zeal clubmen have shown for the tape recording movement in the last few months, and what results your enthusiasm has brought! Now I can let you know that there are over 100 flourishing tape clubs in the United Kingdom and Eire—not to mention a score or more in various stages of formation. To borrow Messrs. Specto's word—a **fantabulous** achievement!



SOUND HUNTING—INDOORS AND OUT



Brighton Tape Recording Club has undertaken a civic responsibility of note, by recording congratulatory messages from the mayors of Lewes and Brighton, which are to be delivered by Courier to the Lord Mayor of Stoke on Trent, in honour of Stoke's Golden Jubilee.

Ipswich Tape Recording Club has received further tapes from Messrs. Cathedral Sound of Northolt in connection with their service

for the blind.

Miss Heather MacRae judged the four entries in the West Herts. Tape Recording Society's editing contest—in which a tape was cut into sections, spliced out of sequence, and dubbed on to several copies for members to take home and sort out by re-splicing (sounds complicated). Actually it wasn't, as John Grainger, who prepared the jumbled tape, then proceeded to explain. Only six cuts were necessary to return the tape to its correct sequence. Miss MacRae then took each entry in turn and gave her comments. She finally judged Peter Holloway's entry the winner, in a very close contest.

At a subsequent meeting, members performed and recorded 'Dial 34, 34, 34in.' The production was by Jack Hill and Peter Walmsley who had previously recorded sound effects and background music. The performers were only given their parts a few minutes before the session, and without rehearsal did a very good job.

An attempt was made by members of the Stoke Newington Amateur Tape Recording Club to record the Tottenham Carnival, but a thunderstorm broke just as the procession was due to start, and it had to be cancelled. Members meanwhile grabbed their recorders, dashed for shelter, and drowned their sorrows in cups of tea!

The Bournemouth and Poole Tape Recording Club reports a new innovation amongst its members. At the last meeting the Secretary produced a quiz tape which was played over to them. The winner of the quiz was awarded a message tape, and informed that he would have to provide a similar quiz for the next meeting. The winner of that quiz will in turn have to produce another quiz tape, and t'will go on and on like ye olde chain letters were supposed to.



After a quiz tape at Rugby Amateur Tape Recording Society had ended, the deviser, Mr. Cotgrove produced one of the 'effects', an enchanting little mechanical toy 'Picnic Bear', with which everyone fell in love.

Two members of the Rugby Society, Mr. Bill Tilcock and his wife Vera, who were on holiday at the time, dropped in on a meeting of the Bournemouth Club. A day later, 14 of Bournemouth's members visited the Weymouth Hi-Fi Tape Recording Club for an entertaining evening with some of the latter club's tapes. These three clubs: Bournemouth, Rugby, and Weymouth, are to establish a tripartite tape exchange in order to keep in touch with one another.

August 4th was Nottingham Co-Operative Amateur Tape Recording Society's O.B. night, and a real success too. One team recorded the Drill and Demonstration given by the City of Nottingham Fire Brigade. Some really good sounds were recorded, and in an interview with N.C.A.T.R.S. commentator John Palmer, the Fire Prevention Officer gave advice as to how the householder can minimise the risk of fire. John also got some 'audience reaction' from a few of the school-children present at the display.

Another crew visited the offices and works of the *Guardian Journal and Evening Post* and secured some material, whilst a third group interviewed members of the public in and around the Old Market Square. These three items were edited and compiled at the August 18th meeting, into 'Nottingham Newsreel'.

GOODWILL SERVICES

Since the series of articles about Cinema organs was published in this magazine some time ago, the Tape Organ Club has gained many new members.

Don Knights, the British Isles representative of the club, has made good use of his knowledge of organ playing. Don used to be one of the famous *Granada Circuit* team of organists, and played at numerous cinemas, including the Granada, Tooting. He has agreed to carry out any recordings required for the British Recording Club's humanitarian services, on the powerful medium size Compton Theatre Pipe organ in the *Odeon*, Whitton.

Ware (Herts.) Tape Recording Club is to combine with members of the local dramatic society and record humorous plays for old and disabled people, and patients at hospitals near Ware. This was decided at the club's meeting, after Mrs. J. Wakely, the Secretary, reported that she had visited several local hospitals to suggest the scheme.

The programmes for local Blind clubs continue to be produced apace by three members of the West Herts. Tape Recording Society. A short while ago they visited the opening of the Subscriber Trunk Dial system at the Watford telephone exchange, and now have recordings for their blind listeners of the machinery operating for calls as far afield as Scotland, the West of England, and all the London exchanges; as well as a very good description of the mechanism, given by the engineers in charge.

A recent meeting of the Rugby Amateur Tape Recording Society was most enjoyably spent in listening to a tape from Fred Gazeley, requesting them to help their sightless tape recording colleagues. Mr. Gazeley is Secretary of the Sightless Members Section of the Voicespondents Club.

The West Middlesex Tape Recording Club is now affiliated to the B.R.C. Their negotiations with Hillingdon Hospital have now borne fruit, and they received a very friendly letter from the Group Secretary thanking them for their offer to help and suggesting that they organise an inter-patient or patient-to-friends message service for the Geriatric wards.

At the next meeting there will be a discussion concerning the amount of help that can be given as a club and as individuals to Fred Gazeley in his efforts for the blind. They have received a very interesting tape from him explaining his thoughts in this worthwhile cause.

The Northallerton Tape Recording Club has received a request from Bill Rawle of Darlington to supply him with the sounds of the Ripon Hornblower Ceremony which we mentioned some months ago, for circulation to the blind. Mr. Rawle's request took the form of an interesting tape about the work he undertakes in this direction.

Mr. Mike Renshaw of Tapeorama informs us that the Girton Youth Fellowship, of which he is a Committee member, has inaugurated a scheme whereby tape recordings of church services are replayed to the bed-ridden of the parish. The first recording, made a short while ago, was most successful.

TAPE & CINE

The Durban Tape Recording Club are now sending sets of tape-slide shows over to this country, through Mr. Joseph W. Neil of 28 Ashurst Road, Friern Barnet, London, N.12, in order that England may see and hear about life in South Africa. The first such show is now available, and pictures with 35 mm. colour slides and accompanying tape, the city of Durban and its sea-front. Other sets in the series are to follow later, and interesting evenings are assured to all who borrow them. Please write for details to Mr. Neil at the above address.

CLUB TAPESPENDENCE

Hazells Watson & Viney Ltd. Works Tape Recording Club have heard from fellow printers in Chicago, and are now able to exchange news and views on tape recording and print.

Members of the Northallerton Tape Recording Club have now heard the tape recorded for them by the Friern Barnet and District Tape Recording Club, which was found to be most interesting, and aroused members' favourable comment.

TALKS AND DEMONSTRATIONS

The introduction of what appears to be a very popular Club activity has been made to the **West Herts. Tape Recording Society**—the demonstration by a member of his or her own recorder. "There are varied makes of machines in the Club," comments Secretary Peter Holloway; "and it allows us to see more of the other person's equipment, and find out the performance qualities as compared with ones own."

For the first demonstration, John Grainger took along the Simon SP4. Many questions were asked, of course, such as one familiar to most clubs: "What is the output?" Ten watts were then brought into play via the external loudspeakers, providing an effective answer.

At another meeting, Sid Attwood gave an interesting 'dem' of his Ferrograph 4A/N, which by way of Sid's humorous comments ("Any clot can work it, even me!" etc.) provided several laughs. A mysterious piece of string could be seen attached to the machine, and this kept members guessing right to the end, when it was revealed as 'Attwood's Own' pause control! Simple, but effective.

Friern Barnet and District Tape Recording Club were fortunate in having a return visit from Mr. Ralph West, B.Sc., A.M.Brit.I.R.E., who tested members' machines with a wow-and-flutter meter. Their machines stood the test surprisingly well. Now the club looks forward to a demonstration of Mr. West's own hi-fi and stereo equipment.

Ken Peters and Fred Judd also spent an evening with the club recently. Alec Alexander should have been there as well, but he was too busy recording the first sounds of a new addition to his family which had arrived that very day.



Ken outlined the work being done for hospitals, and demonstrated tapes made for use by the blind and in the schools. Fred played over his recording of 'The Butterfly', a supreme musique-concrete creation, with which he carried off a first prize in 'The New

Music' competition.

During the evening a cheque was presented by the club to Mr. Peters, for the Tape Bank.

A full programme has been arranged until the end of the year, and prospective members will be forwarded a copy if they 'phone the Secretary, ENTERprise 7972.

Mr. B. Wilson of B.A.S.F. visited **Leicester Tape Recording Club**, and after giving a brilliant lecture about the manufacture of tape, he played a dubbing of a recording, made on the first plastic-based tape in 1935. The evening's events concluded with his showing the prize-winning documentary film 'The Magic Tape'.

A recent meeting of the **West Middlesex Tape Recording Club** was devoted to the sale of tape recording equipment formerly used by their late friend and member, Peter Woodford-Ward. The members rallied round splendidly and over £30 was raised on the auxiliary gear.

At a subsequent meeting, three demonstrations were featured: 'Soldering Technique' by Ken Phipps; 'Use of a Cathode Ray Oscilloscope' by Phil Pratt and Dave Lloyd; and 'Dubbing, Editing, and Splicing' by Sandy Saunders.

A demonstration by Nottingham Tape Recorders Ltd. formed the main item of the **Rugby Amateur Tape Recording Society's** meeting. Mr. A. W. Dakin, Technical Director, and his assistant, Mr. A. Lowe, took along a Ferrograph machine, cabinet speaker, and a Stuzzi portable. First the Stuzzi was demonstrated and all questions about it answered fully. Then followed a lengthy talk about tape recorders in general, after which the Ferrograph machine was demonstrated with a dubbing of part of the very first recording ever made by H.M.V., in 1912, of which there are only two copies in this country. Needless to say this recording was pre-electric, a large horn being used to collect the sounds activating the cutting stylus. An excerpt was then played from one of the first electric recordings made by Decca in 1928, and finally part of the very first pre-recorded tape issued in Great Britain.

HEAR YE, HEAR YE!

Mr. R. A. Watt, Secretary of the Durban and District Recording Club (P.O. Box 2655, Durban, Natal, South Africa), writes to tell us that:

Amateur Tape Recording Magazine certainly gets results. A listing in the May issue brought forth 45 replies from all countries: England, Canada, Australia, New Zealand and America; but alas! nothing from Bonnie Scotland!! Surely there are recordists there who would not mind investing 6d. in an airmail letter to start the ball rolling. All enquiries promptly answered.

We, in Durban, are pleased to advise those Clubs and private members who contacted us, that our 35 mm. coloured slides and tape commentaries, are going well and the first series is now in England and will, in rotation, reach those who applied to join the scheme. Second series is just about finished and will arrive in England in August/September.

FORTHCOMING EVENTS

NOTTINGHAM:

October 13th—'Recorders in the Raw,' talk by Jeff Curtis.

October 27th—Demonstration by W.B. of loudspeakers and enclosures.

November 10th—Preparation of Club Christmas Cards to send to neighbouring clubs in the Midlands.

November 24th—'General Programme Evening.'

December 8th—Demonstration by Nottingham Tape Recorders Ltd.

December 22nd—Lecture by Technical Representative of E.M.I.



RUGBY:

The second tape recording course, organised by the club, will take place between October 6th and November 10th, each Thursday, at the Red Lion, Sheep Street, Rugby.

CLUB AFFILIATION TO THE B.R.C.

AMATEUR TAPE RECORDING Magazine extends a cordial welcome to the Clubs listed below, who have recently become affiliated to the British Recording Club. The Secretaries of these Clubs will be delighted to forward details of their activities to local residents who are interested.

Croydon Cine Club,

Secretary: H. Fanconi,
13 Penshurst Road, Thornton Heath, Surrey.

Warwick & Leamington Amateur Tape Recording Society,

Secretary: Brian J. Race,
30 Ashford Road, Whitnash,
Royal Leamington Spa, Warwick.

Overseas affiliations. AMATEUR TAPE RECORDING Magazine is also pleased to welcome the Australian Tape Recordists Association into the ranks of the growing overseas Clubs now affiliated to the B.R.C. Another Overseas Club that has recently affiliated is the Cine 8 Club of South Africa. Any Club members seeking further information concerning these organisations should write to the secretaries listed below:

A.T.R.A.,

J. F. Wallen, Hon. Secretary,
Box 790, H.,
G.P.O. Adelaide,
South Australia.

Cine 8 Club,

A. Brodie, Hon. Secretary,
P.O. Box 207,
Durban, Natal,
South Africa.

NEW CLUBS

DERBY

The first meeting of the **Derby Tape Recording Club** dealt with stereophonic sound. A brief non-technical introduction to stereo was given by the Chairman, a Reflectograph being used for the demonstration, together with a tape featuring fire engines, a table tennis match, scenes at a swimming pool, road drills, and trains. Afterwards, members were introduced to the various books on the market concerning audio. All enthusiasts are welcome, and should contact the Chairman, R. J. Cartledge, 40 Balaclava Road, Derby.

GRANTHAM

Of special interest to stereo enthusiasts. A European section of **Stereo International** is being formed by the **Grantham and District Tape Recording Club**; Chairman, R. V. Huddleston, c/o G. & F. Cope & Co., 33 London Road, Grantham.

HOUNSLOW

Mr. K. R. Harvey, 116 Chatsworth Crescent, Hounslow, Middlesex, invites anyone interested in the formation of a club in Hounslow to contact him. Letters only please, with a stamped addressed envelope for reply.

SPENNYMOOR

A works tape recording club has been formed by **Thorn Electrical Industries**, Spennymoor. The Technical Secretary is James E. Wild, 7 Dale Street, St. Helens Auckland, Nr. Bishop Auckland, Co. Durham.

NEWCASTLE-UPON-TYNE

Mr. M. J. Bonner of 28 Rushie Avenue, Pendower, Newcastle-upon-Tyne 5, would like to form a local club in Newcastle. Will those interested write to the above address.

SHOREDITCH

B.R.C. Member L. R. Burchell, of 36 Nevitt House, New North Road, London N.1, wishes to form a club in Shoreditch.

CAMBRIDGE

Mike Renshaw of 6 St. Vincent's Close, Girton, Cambridge, B.R.C. Member who produces 'Tapeorama', the recorded-magazine programme, would like to see a club formed in the city of Cambridge.

STOKE NEWINGTON

The recently formed **Stoke Newington Amateur Tape Recording Club** has eight members to date, and plenty of room for more. Meetings are held every Wednesday night at 53 Londesborough Road, Stoke Newington, London N.16, the Secretary's address.

ACTON AND WEST LONDON

The former Acton Recording and Hi-Fi Club has now changed its title to **The Acton and West London Recording Club** in recognition that the majority of members reside outside the Acton area. A change of venue has also been made, to The Kings Head, Acton High Street, where meetings are held every second Friday.

HOVE AND DISTRICT

The new **Hove and District Tape Recording Group** (a B.R.C. affiliate) have taken over responsibility from the **Brighton Tape Recording Club** for operating the **Inter-Club Tape Exchange Service**, in which 20 clubs participate. The new Hove group will assist in the provision of musical programmes at Hove Hospital, and for an Old People's Home in Southwick. Meetings will be held every Tuesday commencing 7.30 p.m. at 44 Hogarth Road, Hove 3, Sussex, the Secretary's address.

HULL AND DISTRICT

The **Hull and District Tape Recording Club** officially came into being on July 13th and already have twelve 'mad keen'

members. The Secretary is Mrs. A. Fulstow, 53 Legard Drive, Anlaby, Hull, E. Yorks.

SOUTHAMPTON

Mr. D. Gannaway informs us that several **Southampton tape enthusiasts** have decided to try and form a **Southampton Tape Club**. He would be glad to hear from anyone in that area interested. His address is 39 Cheriton Avenue, Harefield, Southampton, Hants.

WOOLWICH

Mr. C. L. Hurst is forming a tape club for the **Woolwich** area. The object of the club will be to exchange information, tapes, etc., promote taping and, he hopes, to provide a **Hospital Tape Service** in due course. **Woolwich** tapers should write to 12 Willrose Crescent, Abbey Wood, London S.E.2.

PETERBOROUGH

Mr. B. J. Rice would like to hear from anyone interested in forming a **Recording Club** in **Peterborough**. His address is 1414 Lincoln Road, Werrington, Peterborough.

PENRITH

Malcolm Leggett, 38 Milner Mount, Scaws Estate, Penrith, Cumberland, is planning to form a club in this area and would be pleased to hear from readers and enthusiasts in and around Penrith.

CLUBMEN REQUESTS

J. S. Griffiths, "Hillcroft", 29 Sion Hill, Kidderminster, Worcs., is chasing an old Regal Zonophone Disc, No. 1111. Have any readers come across this? John describes it as the most frightful piece of music he has ever heard—but he loves it, and wants to hear it again.

If you would like to join the "Round Robiners" (music making) Group, write to **Alf Day**, "La Rocque", Woodside Road, Bricket Wood, St. Albans, Herts, and he will despatch a "Tape Log" and list of "Round Robiners" who will willingly "have a go" and send the tape boomeranging round until it comes back to you full of music and with the **Tape Log** showing where it has been and who has done what. You then do with it what you will. The performers are all amateurs, and sing, read poetry, tell a story (have a care), play an instrument, so "don't be fright".

C. G. Bayliss, 120 Royal College Street, London, N.W.1 is interested in **Fairground Steam Organ Music** or **Carousel Music**, and would be glad to hear from anyone owning discs or tapes of this type of sound.

Alasdair Fenton of "Fairview", Drymen Road, Balloch, By Alexandria, Dunbartonshire is writing the life-story of "Britain's greatest dance band leader and impresario", **Jack Hylton**, and wonders if any readers have any information about him, such as record lists, photographs, newspaper cuttings, all of which would be paid for.

B. J. Rice, 1414 Lincoln Road, Werrington, Peterborough, is an active member of the **Scout Movement** and would like to contact either a **Scoutmaster** or **Scout Group** anywhere interested in taping. He would also like to tape with someone in **Australia** especially in the **Mitcham-Melbourne** area.

J. G. Blythe, 41 Hyde Way, Welwyn Garden City, Herts wants to tape with someone in the **British Honduras** area. He is particularly interested in contacting a person with a knowledge of the **Maya** area and its background (historical).

A. McDonald would like tapers of his to note his change of address to 3 Sherrington Road, N. Woodingdean, Btn. 7, Sx.

Emily Hartshorne would like to hear from anyone who records bird songs or who has a collection of tape recordings of bird songs, as her father plans to write a book about the songbirds of the world.

John S. Kipping of J16, S.M.Q., Crete Park, Whyalla, South Australia, regrets that his taping activities are overloaded and he cannot take on any new tape friends for the present. He will still welcome tapes or letters from blind or incapacitated members.



CLUBMAN PROFILE

ALLAN WARBURTON

This is your page—open to all B.R.C. members to tell our readers something about yourself, your views and ambitions. Send your story (not exceeding 1000 words) and a photograph to Clubman Profile, A.T.R. 145 Fleet Street London E.C.4

I SUPPOSE we all think our own Mother is unique, but in my case I have a special reason for thinking this. In spite of the fact that she has been deaf since the age of twelve and that she has never had a music lesson in her life my mother can sit down at the piano and play by ear and quite well, too. It was quite natural, therefore, that I should develop an ear for music and in my early teens I had taught myself to play the piano, piano-accordion, organ and guitar. Music fascinated me and dominated my life; I won talent competitions and entered into the amateur show business life of Bradford, my home town in Yorkshire. I started with a mouth organ band, then an accordion band and graduated to a semi pro dance band by the time I was sixteen. I also did a double act with another accordionist for stage work.

Just after my seventeenth birthday I joined the T.A. and a few months later the Territorials were mobilised and war was declared and I said goodbye to my home town for many years. However, I kept up my musical activities by forming army dance bands to play in off duty hours and provide amusement for the troops. After it was all over I found myself stationed near Hamburg and I did some broadcasts over the B.F.N. Then demobilisation and an offer to turn professional, but having acquired a wife and a newly born baby and accommodation being so difficult to find at that time, I made a decision not to turn professional but to study hard and enter commerce and we settled down near Kings Lynn in Norfolk, my wife's home town. For the next nine years music was laid aside and business became the thing to think about and after some time I was appointed office manager and cost accountant at a new factory just being built at Kings Lynn. We had some hectic times getting it under way, but when it settled down we formed a social club and of course, having had previous experience, it fell to my lot to organise socials and dances for the club. I then came into contact with the local semi-pro bands and the bug began to bite

again and my fingers started itching. It was not long before I was persuaded to have the piano chair with a quartet playing at a high class hotel in the district. Soon we were having cabarets which included star names, and we found ourselves accompanying people like Eddie Calvert, Tony Fayne and David Evans, the Beverley Sisters and Benny Lee.

However, this job was destined to be short lived, because my wife began to be obviously ill and had difficulty in getting about. After much persuasion she had a check up at the Hospital and was immediately admitted. You can imagine my shock and grief when I was told she had an incurable disease and she would require constant attention for the rest of her life. In a few months she was paralysed completely and I was nursing her day and night. I gave up my job at the office and took an area sales job with a seeds firm, to give myself more time to be with my wife.

Having nothing else to do, I began to watch television quite a bit and one night I happened to see a feature in 'Tonight' about a Hospital record programme which was successfully being put on at a Bradford Hospital. It was the mention of my home town which first attracted my attention but as I watched the feature I became interested. Why not do the same thing for our local hospital where my wife had spent a few weeks when she was first ill? The secretary of the League of Hospital Friends was a friend of mine and I talked it over with him. I told him I could not get out in the evenings but if the Hospital would buy a tape recorder I would do the programme at home and then plug it in the Hospital broadcasting system on Tuesday mornings when I went into Kings Lynn on business. The Hospital authorities were not enthusiastic. They would not consider buying a tape recorder but gave me permission to have a trial run at the small Isolation Hospital in town. By this time the idea had got firmly hold of me and I resolved that if the Hospital people would not buy a tape recorder I would buy one myself although I knew nothing about them. I spoke to a dealer friend of mine who told me he had a Grundig TK830/3D on his hands which someone had ordered and then cancelled. He sold it to me at a very much reduced price, but even then it completely cleared my small bank account. I announced the scheme at the Isolation Hospital and a girl patient was recruited to send me a

list of requests. The Sister in charge was young and quite co-operative. I scrounged records for the first programme from my young daughter's friends and made up a half hour show, mentioning the names of the patients and staff and playing the nearest record to their requests. The local post office was instructed to send all letters addressed to 'Hospital Requests' to me personally and the thing was then under way. In a few weeks I was receiving letters asking for requests for relatives in the Hospital from all over Norfolk, Cambs, and even from Middlesex, Surrey, Leicestershire, Suffolk and I even had two letters from soldiers stationed in Germany. The programme was given a write up in the press, mentioned on the B.B.C. and even mentioned on 'The Midday Show' from Anglia Television by Norman Hackforth who I have met twice since. He praised the work and thought it was a wonderful idea.

I have found that tape recording has brought me very many new friends and enriched my life more than I thought possible. Many of my business friends including farmers are tape enthusiasts and are interested in what I am doing. I have recently added a Masteradio Stereogram to my equipment and can now take down very good quality recordings, having had a diode connection fitted and also a connection to record gramophone records from the gram side.

Now I have another absorbing hobby. I recently bought two 'Instant Language' record courses in French and German and have transferred them to tape and am now busily engaged in learning to speak French. This also helps my daughter who is learning French at school. I have had 'Amateur Tape Recording' from the second issue and joined the B.R.C. some months ago and I hope soon to start taping. I should add in closing that my job is prospering, as I am now financially better off than when I was an accountant although I work very much reduced hours, and also my wife is quite a bit better and is now awaiting to go into Newmarket Hospital for intensive physiotherapy which we hope will enable her to help herself a little and get her into a wheelchair.

So, you see, if you want to find an absorbing hobby which will amuse, educate and help you, I can thoroughly recommend a tape recorder. I wouldn't part with mine and I am now considering buying another.



number

1

PRIORITY

YOU MAY HAVE MISSED THE FIRST

ISSUE OF

POPULAR HI-FI

Place your order

NOW

FOR NOVEMBER'S

**Popular Hi-Fi, the magazine for everyone
who enjoys listening, which will be on sale
at newsagents and bookstalls on
October 14th, 1960.**

Amateur Tape Recording

SCHOOL CLUB AT WORK

by Dr. C. A. Smith, M.A.

THE VICTORIA Secondary Technical School Tape Club, whose formation we announced in August, has set vigorously to work. The boys' initiative and ambition are such that, before turning in future issues to the activities of other clubs, we are devoting a second article to the Victorians.

Commonwealth Institute Exhibition

The club is continuing to send cards to other clubs in many parts of the world, and will report to this page any replies of general interest to our readers. We shall be pleased to receive letters or tapes from schools, clubs or individuals at home or abroad. The declared interests of the Victoria boys range from Space Flight to Sibelius, from Holbein to Hi Fi, from Archery to Zoology. We should be particularly pleased to hear from B.R.C. members in the Commonwealth, as we hope to produce a continuous programme feature for the Commonwealth Institute Schools' Exhibition in 1961. Information concerning this Exhibition can be obtained from the Chief Education Officer, Commonwealth Institute, Imperial Institute Road, S.W.7.



(ABOVE)
There's always something of interest in a stable—an authentic sound effect being recorded.

(LEFT)
Not all animals are as willing to co-operate as the horses! Withbread's stable rat-catcher slowly walks away.



Club Projects

Readers may recall that at its inaugural meeting the Victoria School club appointed teams for three main tape projects—the Post Office, the Port of London and the Metropolitan Police.

The first had to be postponed because of the P.O. re-build now in progress. The approach to the Port of London Authority brought the club two helpful books on the history and work of the Port, but this project is now hanging fire despite considerable activity by the team. The cause is partly lack of local contacts, and the school would be pleased to hear from any dockside school willing to co-operate; offers of assistance addressed to this page will be forwarded to the school.

The Metropolitan Police

The script for the police tape, after weeks spent on its preparation, was sent to the Public Relations Officer at Scotland Yard in order to obtain authorisation for the necessary interviews and visits. In reply, the club was informed that the policy of the Commissioner prohibits police officers from being photographed in police stations or interviewed. There was, however, an invitation to visit the Information Room at Scotland Yard. About the same time came the annual visit from a member of the River Police—who, because the school is close to the river, send an officer each year to point out the perils

of playing (especially during the holidays) along the river banks and in the disused warehouses. Much of his talk and many of the questions put by the First Year were recorded and photographs were taken, and the club secretary was invited to visit a police launch; it was agreed unanimously that there are few more helpful and co-operative people than the police.

The club members greatly regret the setback to their project by so rigid an application of the Commissioner's policy, and are endeavouring to enlist the support of retired members of the Force and so produce a live—and lively—programme. The B.R.C. Education Division, whose editors' teaching experience extends over many years in the North, East Anglia and London, knows the alarming hostility of many teenagers towards the police, and hopes that the club will find some means acceptable to the Commissioner of producing a tape which could do nothing but good; the boys would thereby be enabled to render an important civic service.

Cart Horse Parade

Meanwhile, undaunted by such temporary set-backs, the Victoria club decided to produce a tape on the (then) forthcoming London Cart Horse Parade to be held in Regents Park. In the course of an enquiry as to the firms taking part, a telephone call to Whitbread's not only confirmed that their magnificent greys would be entered but also elicited a cordial invitation to visit their stables.

Monday's Parade was likewise not good for recording purposes. The commentary given over a loud-speaker system was excellent when audible, but its quality was so poor that the team could not record it. However, they

The B.R.C. Education Division desire to make this schools' page a readers' page. We welcome queries, advice, experiences of exceptional interest, accounts of tapes made by school staffs or school clubs. We also welcome suggestions for professionally-made tapes for class-room use. Address all correspondence to Dr. C. A. Smith, B.R.C. Education Division, Amateur Tape Recording, 145 Fleet Street, London, E.C.4.

learned a great deal from this initial venture, and are resolved henceforth to monitor all that goes on the tape and to seek permission to put the recorder in the judges' stand when amplifying systems are to be used.

The team recorded their visit to Whitbread's and to Regents Park not only in tape but also in writing and by photographs. Their report is embodied in an impressive document of sixteen 18" x 12" sheets, and includes three sketches and fourteen photographs. These last were mostly taken by one of their masters, Mr. A. L. Willemsen, an exceptionally skilful photographer.

So the cart horse project, hastily adopted when the others were held up, provided two interesting outings, an illustrated book (with much valuable editorial experience for the boy who perspired over it) and a photographic album. The new-born Victoria club is proving a lusty infant!

**WHEN REPLYING TO
ADVERTISEMENTS PLEASE
MENTION AMATEUR TAPE
RECORDING MAGAZINE**

B.R.C. APPROVED DEALERS

Visit the Showrooms & Gramophone Record Library at
AUDIO REPRODUCTION CENTRE

134 UXBRIDGE ROAD
SHEPHERDS BUSH, W.12
SHE 2234

NUSOUND RECORDING CO.
3/8 Brigstock Parade, London
Rd., Thornton Heath, Surrey
Opposite T/Heath & T. Bus Depot. THO 7609
London Showroom: 35 Craven Street, Trafalgar
Square, London W.C.2. Telephone TRA 2080

ESSEX TAPE RECORDER CENTRES
2 MARYLAND POINT STATION,
LONDON, E.15 (Head Office)
Telephone: MARYland 5879
205 HIGH STREET, EAST HAM, E.6
(Opposite East Ham Station)
Telephone: GRA 6543

H. C. ENGERT CO. LTD.
8-9 GRAND BUILDINGS
TRAFALGAR SQUARE, W.C.2
Telephone—TRAFALGAR 2581

R.E.W. EARLSFIELD LTD.
545 GARRATT LANE
S.W.18. WIM 0709

THE TAPE RECORDER CENTRE
(Proprietor: C. BRADDOCK)
266 Waterloo Road, Blackpool, Lancs.

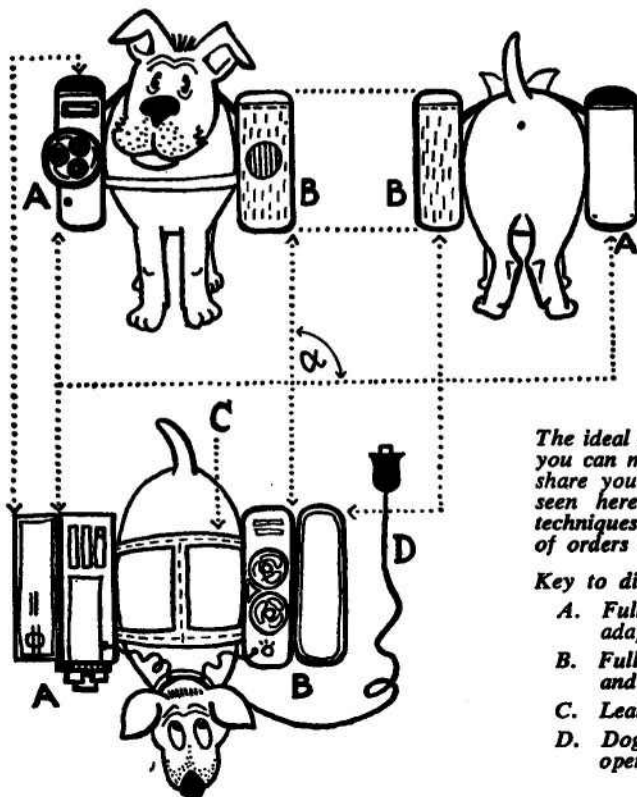
R. B. TAPES CO. LTD.
179 Stoke Newington High Street, N.16
Telephone: CLIssold 9477
Also at 89/91 Great Ancoast Street, Manchester

SHEEN TAPE RECORDER CENTRE LTD.
Personal Sales and Service by L. G. Francis
6 STATION PARADE, SHEEN LANE, SHEEN,
LONDON, S.W.14. Showrooms: PROspect 0985
Office: CHIswick 5487
(Next to Mordlake Station S.R.)

RAPID RECORDING SERVICE
78s and LPs from your own tapes—
Master discs and pressings
Recording Studio equipped with Bechstein Grand
Mobile Recording Van. "Off the Air" Service
21 Bishops Close, Church Lane, E.17 COP 3889

UNIQUE RADIO SERVICE
The Facade, High Rd., Goodmayes, Essex
Telephone: Seven. King 8277

FISHER ELECTRONICS CO. LTD.
60-66 WARDOUR STREET
Telephone: REGent 7597



Inventor's Corner

by Hans Koebner

The ideal solution for the tired tape recording enthusiast. Now you can make your sound films as you go, and let the pooch share your hobby too. This remarkable sound/film dog kit, seen here for the first time, will revolutionise recording techniques. Dr. Dankeshoen, the inventor, has received dozens of orders already, all from dogs.

Key to diagram:

- A. Fully automatic cine camera with lenses specially adapted for dog-eye view.
- B. Fully automatic tape recorder with built-in microphone and battery pack.
- C. Leather carrying harness.
- D. Dog's lead with built-in remote control switch to operate camera in synchronism with tape transport.

FREE H.P!

WE HAVE THE LARGEST SALES
OF TAPE RECORDERS IN THE COUNTRY!
WHY! BECAUSE WE GIVE YOU THE BEST
TERMS —

THEY INCLUDE:—

- ★ 2 YEARS TO PAY ★
- ★ NO INTEREST CHARGES ★
- ★ DEPOSITS FROM 10% ★



- ★ FREE SERVICING FOR 12 MONTHS — NO CHARGES
- ★ NO PURCHASE TAX
- ★ FREE DELIVERY ANYWHERE IN U.K.
- ★ PART EXCHANGES
- ★ CHEAP SECOND-HAND MACHINES
- ★ SPECIAL FREE TAPE & COMMISSION OFFERS
- ★ 10% INTEREST PAID ON YOUR DEPOSIT
- ★ and lots more besides

WE CAN SUPPLY ALL GOOD EQUIPMENT ADVERTISED IN THIS MAGAZINE ON BETTER TERMS THAN YOU CAN GET ANYWHERE ELSE.

400 machines in stock — £20,000 worth of over 80 different new and second-hand models on permanent demonstration in our showrooms ★ Main Agents for all the best makes ★ Open all day Saturdays ★ Our Mail Order Department covers the whole of England, Wales, Scotland and Northern Ireland — order from us wherever you live for speedy delivery, better service and better terms than you can get locally.

Write, Phone or Call at once for Free Brochures & full details of our Terms—it saves you money if you buy from us.

30 mins. from Central London

HOWARD

TAPE RECORDERS

218 HIGH ST. BROMLEY, KENT. RA.V. 4477

— — — — — cut off here and post this coupon to us today — — — — —
PLEASE RUSH ME FULL DETAILS OF YOUR TERMS AND BROCHURES:

Name Address

NAME BELOW ANY MODELS YOU ARE PARTICULARLY INTERESTED IN:

THE MYSTERIOUS DECIBEL

by Stephen Ross

A TECHNICAL TERM that appears more frequently in worthwhile specifications than in others is the decibel or dB. Unfortunately most laymen understand less about this term than any other despite the fact it is one of the most important.

In simple language the Bel, unlike the Watt unit of power which measures the actual Volume, is a unit of volume linked to the way in which we hear sound, a decibel being simply one-tenth of a Bel. As an example the ear can detect the difference between 1 and 2 but not between 101 and 102 milliwatts although the difference is the same. To the ear the difference between 100 and 200 milliwatts sounds identical with that between 1 and 2 milliwatts. In fact the ear detects the same difference in volume each time the actual volume is multiplied by ten and it is to get over this difficulty of measurement that the Bel and decibel have been instituted. Thus if we increase the volume ten times the increase is 1 Bel, one hundred times 2 Bels and one thousand times 3 Bels. Multiply the number of Bels by ten and we have the result in decibels. When we read a specification the term decibel is simply a comparison with

any given amount of 'Sound power' or volume, usually a milliwatt, without getting involved in unmanageably large figures. As long as we remember that the decibel is simply a measurement of apparent sound and not actual sound, understanding decibels in technical specifications is no more complicated than understanding the number of Guineas on a price ticket.

One of the most frequent applications



"This is the Rock 'n' Roll Tape that makes the man next door hammer on the wall!"

to be seen in specifications is that the signal to noise ratio is 'better than -40dB' or similar. All this means is that for every milliwatt of sound output, the equipment will produce 1/10 x 1/10 x 1/10 x 1/10 or 1/10,000 milliwatt of unwanted sound such as hum and hiss. Similarly if the figure quoted were -50dB the unwanted noise produced would be 1/10 x 1/10 x 1/10 x 1/10 x 1/10 or 1/100,000 milliwatt. As you can see the figures are getting rather large and unmanageable. By using decibels a signal to noise ratio of -40dB simply means that the ear will hear 40 times more wanted than unwanted noise.

Another frequent application of the decibel is in measurements of frequency response, particularly in tape recorders. Ideally a tape recorder will be equally efficient at the high frequencies as at the low, but this never happens in practice. Most listeners' ears will accept a variation of about 3-4dB without noticing any serious difference and this appears in a specification as '±2dB'. Always remember that the '±' sign sign doubles the figure quoted as it measures a variation in either direction from the starting point.

Most people's ears automatically compensate for a difference in strength of up to about 4dB (±2dB) but above this figure tend to ignore the excessive variation and concentrate on that part of the frequency range that does fall within these limits. This explains why one recorder quoting a response of 40-12,000 c.p.s. ±2dB will sound very much better than another quoting 30-16,000 c.p.s. ±3dB. A good response over a reasonable range is infinitely preferable to a varying response over a wide range. The latter can look impressive but mean very little. The most trustworthy tape recorder retailer I know will only quote figures ±2dB irrespective of the manufacturer's literature, dismissing any others as worthless and misleading — harsh perhaps but not unreasonable.

If you are considering an item of equipment it is wise to be very careful about any for which a frequency range is quoted without a decibel reference. It is quite meaningless and would still be true even if you required a deaf aid to hear the drums and ear plugs before enduring the violins. If a manufacturer cannot quote a decibel reference you can be fairly certain that he has something to hide.

Finally, after reading this article, do not be frightened to discuss decibels when you next make a purchase of sound equipment. If the salesman realises you understand what you are talking about he will concentrate on selling by demonstration rather than by impressive sales talk, assuming that you were so unfortunate as to meet a salesman sufficiently unscrupulous to attempt to 'blind you with science'.



"Now you've filled up the Spool, how long does it take to develop it?"

A.T.R. READER ENQUIRY SERVICE

IF YOU WOULD LIKE PARTICULARS OF ANY OF THE FOLLOWING ITEMS, PLACE A CROSS IN THE BOX PROVIDED AND RETURN THIS COUPON TO A.T.R., 145, FLEET STREET, LONDON, E.C.4.

Tape Recorders (mains) ☐

Tape Recorders (battery) ☐

Microphones ☐

Record Players ☐

Recording Tape ☐

Pre-recorded Tapes ☐

Tape Splicers ☐

Accessories ☐

Name

Address

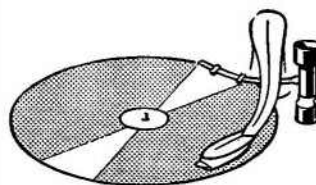
RECORD REQUESTS

Do you want your favourite record played on Radio Luxembourg? The British Recording Club now has its own Record Request Programme every Friday evening at 7.30 on '208', the Station of the Stars. Send a postcard to Friday's Requests, Radio Luxembourg, London, W.1, giving the title, artist, disc number (if known) and the reason for your choice. Perhaps your tape-spondent on the Continent is getting married, or a Club member is in Hospital; maybe you know someone having a tape anniversary, or a blind friend you would like to greet in this way. Whatever you put on your card, remember to mention that you are a member of the B.R.C.

Don't forget, tune in to 208 metres every Friday at 7.30 p.m.

Talking of records, B.R.C.'s other magazine, POPULAR HI-FI, is the perfect way to keep up-to-date in the world of discs. All the latest releases, reviews and recommendations are to be found in each issue, together with details of all Radio Luxembourg programmes, news and reviews of Hi-Fi equipment, radios and television sets. Famous people talk about their likes and dislikes in music, Pop Club features its own Top Ten, readers are taken behind the scenes for recording sessions — these and many other features all appear within the pages of POPULAR HI-FI. It is on sale now, price 2/-. If you cannot get a copy from your local newsagent or W. H. Smith bookstall, write to 145 Fleet Street, London, E.C.4.

STOP DAMAGING DISC & STYLUS



THE AUTOLIFT

gently and accurately lowers the pick-up on to any size record. Most damage occurs when positioning the stylus—the slightest slip or shake of the hand may ruin your favourite recording in a moment. The Autolift removes this risk forever, and will lengthen the life of both records and stylis.

EASY TO FIT — SIMPLE TO USE

Takes all size records — Fits all record players **27/10 inc. P.T.**
Send for **FREE** leaflet and address of stockist.

Autolift Sole Distributors:

WILMEX LIMITED

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



SOUND TERMS FOR YOU

**WE CANCEL
NOT JUST DEFER
YOUR PAYMENTS
IF YOU FALL ILL
OR BECOME
UNEMPLOYED**

**WE GIVE YOU
FREE INSURANCE
AND ASK ONLY
A LOW DEPOSIT**

**WE CHARGE NO
INTEREST. UP
TO TWO YEARS
TO PAY FOR ANY
Tape Recorder**

Details of any model sent on request from
SOUTH WEST LONDON'S HI-FI CENTRE

SANDS HUNTER DEPT. A.M.

85, THE BROADWAY, WIMBLEDON, S.W.19. CHerrywood 4393

45, HARE STREET, WOOLWICH, S.E.18. WOOLwich 1955.

43, MITCHAM ROAD, TOOTING, S.W.17.

37, BEDFORD STREET, STRAND, W.C.2. TEMple Bar 8858.

*Also
at*

PRE RECORDED MONO & STEREO TAPES, TAPE COPYING & TAPE-TO-DISC SERVICE

What is...

A COMPLETE AUDIO SYSTEM

by Fredericks

The concluding article of our series on the elements of a complete recording system.

IN THE previous articles of this series we have discussed the various parts of a complete system. This included the microphone, mixer, pre-amplifier, power amplifier and loudspeakers. We also covered the record, playback and erase heads, bias oscillator, tuners and gram units. With this system we can record from tuners, gram units, microphones and duplicate another tape recording.

A typical complete system is shown in Figure 1 which consists of a medium wave tuner, a VHF tuner, pre-amplifier, power amplifier, bias oscillator, recording level indicator, and a loudspeaker system. You will note that each section is shown as a unit with inter-connecting cables. In practice several of the units are often combined into one unit to conserve space. Each unit is labelled and a reference is made to the issue of the Amateur Tape Recording in which the unit was discussed.

In this, the final article of this series, we will discuss recording techniques using the various programme sources and since the recording level indicator was not covered in previous articles we will include the details in this article.

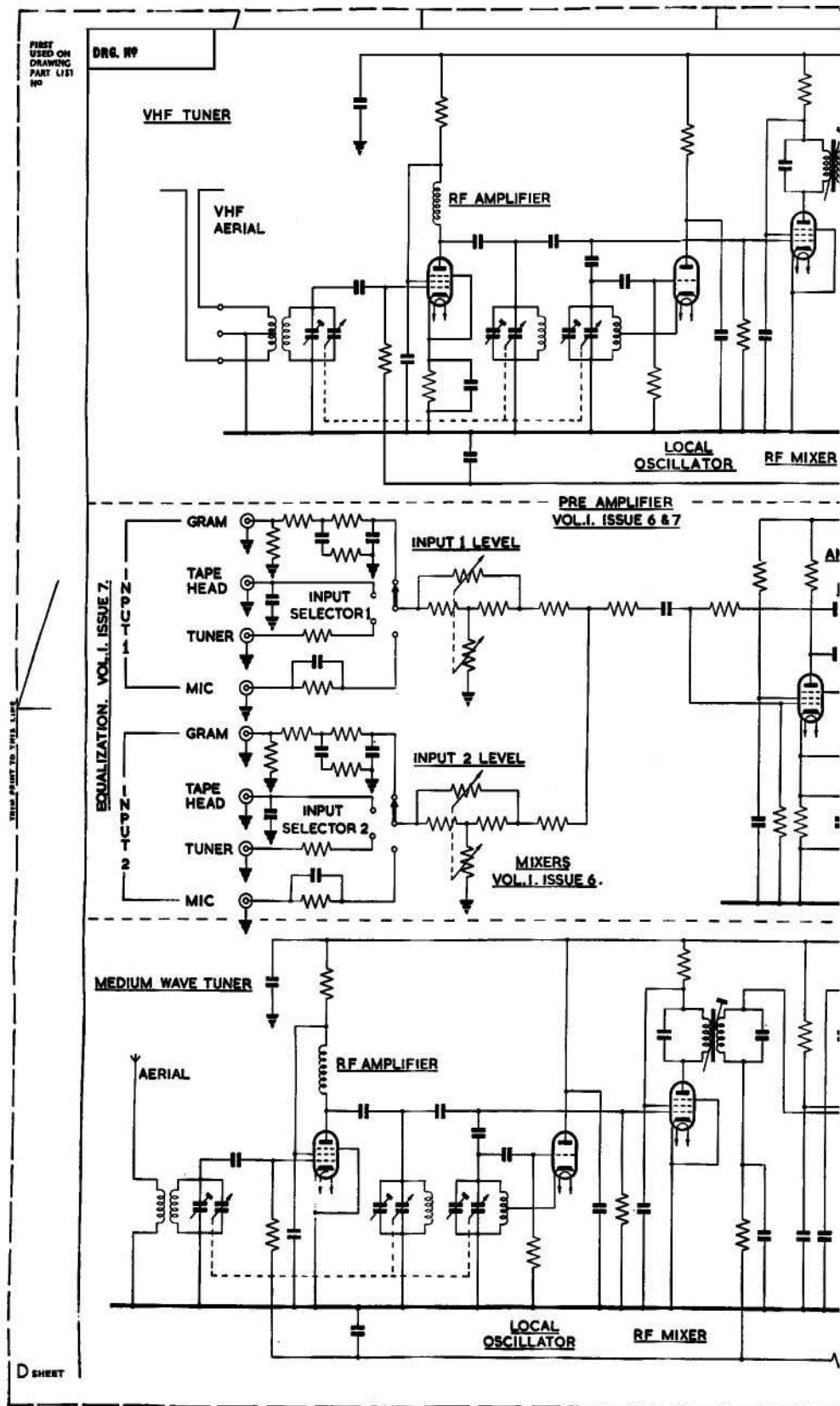
Before we start our discussion on recording techniques we suggest you review Figure 1 and if desired, the previous articles on the various units in order to fully understand the system. (Some back numbers of A.T.R. are still available.)

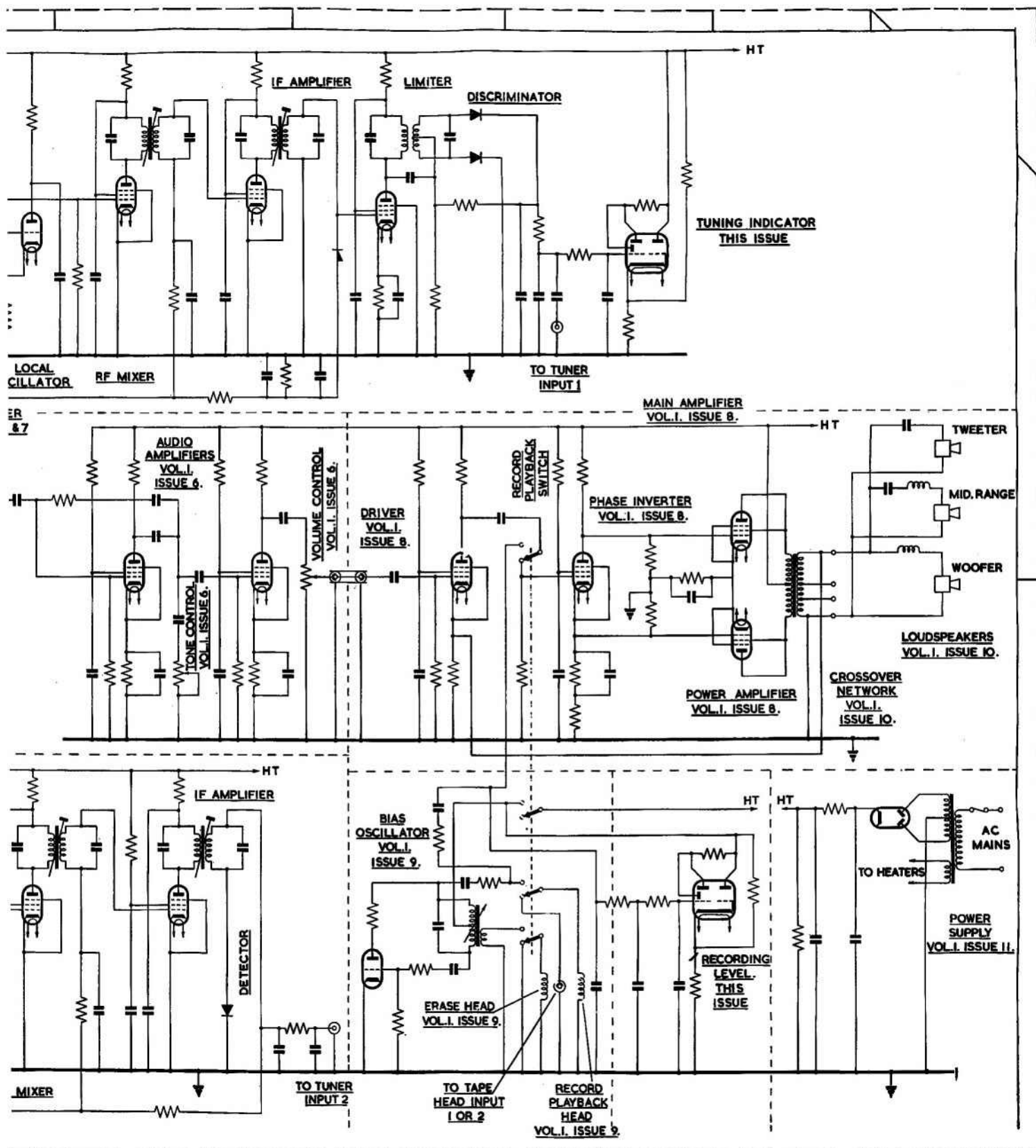
Level Indicators

Let us now discuss the level indicator. This unit can be used as a tuning indicator or for a recording level indicator, depending upon how we connect it into the circuits. Figure 2 shows a typical level indicator circuit.

The resistors R1, R2 and R3 set the voltage levels on the two anodes and the cathode for proper operation of the

The diagram (fig 1) contains all the elements of the system as described in previous articles. Vol and issue numbers refer to the numbers of A.T.R. in which the articles appeared.





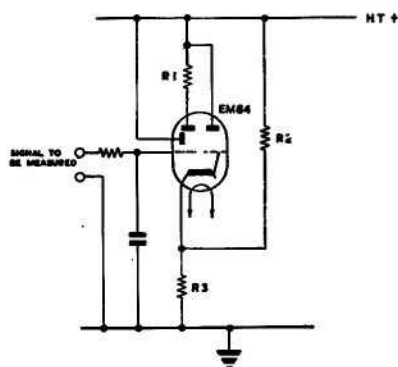


FIG. 2. TYPICAL LEVEL INDICATOR CIRCUIT

valve. These values of resistance are selected to set the level at 80% for full closure of the indicator. The resistor and condenser in the control grid circuit act as a filter circuit to give an average signal instead of a complex variable signal. When no signal is on the control grid, maximum current will flow through the valve and thus through resistor R1. A large voltage drop results and the indicator is dark. If we place a signal on the control grid that is negative, the current flow through the valve and resistor R1 is reduced. A smaller drop across resistor R1 causes the anode to be more positive, therefore the indicator lights up as indicated in Figure 3. The more negative the signal the more area that lights up until the two skirts come together.

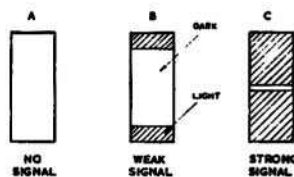


FIG. 3. TYPICAL INDICATIONS OF EM84 VALVE.

There are other types of level indicators available. Figure 4 shows some of the typical patterns used. A meter movement may sometimes be used and it is calibrated in signal levels of decibels. Coloured bars along the scale are used to indicate the desired range of levels for recording.

Figure 4 A and B are older types that are not found very often. You will find the pattern in Figure 4 C (EM80) and Figure 3 (EM84) on most modern tape recorders and tuners.

Some of the older recorders used neon lights that would glow when you had signal applied at the correct level for recording.

Now let us see how we use the various controls and indicators to record with our system. Whenever we refer to a control we are using the system shown in Figure 1 as a reference. Your system may not have the control or it may have a different name for the control. These are general in nature and you

should use them only as a guide and check your manual of operation for your own recorder or system for complete instructions.

Combination Recording from Microphone and Gram

First we will plug a microphone into input No. 1 of the mixer pre-amplifier and record voices. The input selector No. 1 is set on the microphone position and the record playback switch placed in the record position. The input level is advanced until the recording level indicator skirts come together as we talk into the microphone. If only one person is to record his voice the microphone should be held three to six inches from the mouth with speech at a normal level. Holding the microphone too close to the mouth or talking in a loud voice can damage the better quality microphones. Many people will tap the microphone with their finger to see if it is working, which can cause damage. The best way to test the microphone is to talk into it in a normal voice or rub your fingernail gently on the face of the microphone.

If a group of people are going to record, they should group around the microphone three to six feet from it, and the volume be set to pick up the voices at the desired level when they talk in normal voices.

Next we will plug a gram into input No. 2 and set input selector No. 2 to the gram position and adjust the control 2 until the skirts of the level indicator just meet, but they should not overlap. When you are recording from only one input, the other input level control should be turned all the way down (to zero). You can record from two inputs (microphone on input No. 1 and gram on input No. 2) if you adjust both input level controls properly. Both inputs add together, therefore both input levels will be set lower than if one or the other was used separately.

A few short test recordings using different settings of both input level controls adjusted for the skirts on the indicator to come together but not overlap, will determine the best settings for your system.

Recording from a Tape Recorder

If we connect a tape head to the input jack from a tape recorder, we can record from that tape recorder into our system. If the tape recorder does not have a tape head output, the monitor output from the tape recorder can be connected to the tuner input and the input level control adjusted for the correct recording level on our system.

Recording from MW Tuner

The medium wave tuner is tuned into the station. The level indicator can be used for tuning by rotating the dial for maximum closure of the skirts as well as listening to the speaker output for a clear signal, and then set the input level control for the correct recording level.

Recording from VHF Tuner

The VHF tuner has its own tuning indicator. The station is 'tuned in' and adjusted for maximum closure of the skirts on the tuning indicator. Again you then adjust the input control for the correct recording level.

General Notes

To play back the recorded tape, the tape head is connected to the tape head input and the record play-back switch is placed in the play-back position. The input level control and the volume control are advanced for the desired listening level.

The system in Figure 1 is such that the record play-back switch should be in the play-back position when we desire to use the power amplifier to allow us to listen to the system. Some systems are connected this way and some systems are connected so that you can listen to the programme while you record.

You will also note that when the record/play-back switch is in the play-back position, the bias oscillator and the recording level indicator are disconnected and turned off. This is to prevent interference during play-back, or when using the system to listen to the tuners or the gramophone.

Figure 1 does not include many of the minor refinements that would be used in a complete system. For example, each tuner would be provided with a switch to turn it on or off as required, and the tuner circuits would be more complex for high quality, e.g., the VHF tuner would have an automatic frequency control. The circuits are only to give you a general picture of what a complete system looks like. There are many variations of each circuit and when a tuner or amplifier is designed, the type of circuit for an individual stage is selected to give the desired results for the cost.

Through proper use of the controls and matching good equipment to form a complete system, you can have many hours of enjoyment. Cost does not always determine the best unit to add to your system. The input and output levels and impedances must match when units are connected together.

In conclusion we wish you many hours of happy recording and listening.

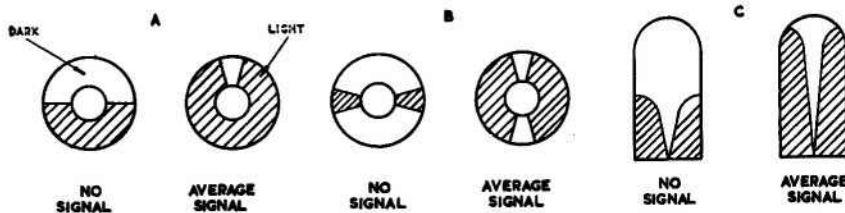


FIG. 4. TYPICAL PATTERNS DISPLAYED BY LEVEL INDICATORS

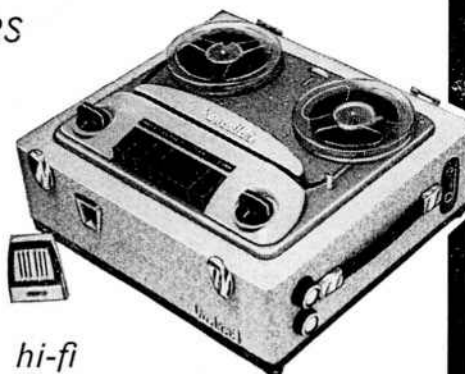
kurland KONSOLLETTE

a tape recorder of superb quality by KRS

- * Utmost reliability * Technical perfection
- * Finger-tip simplicity of operation

The quality-beyond-question specification is based on a masterpiece of *printed-circuit* design; the tape deck is the most up-to-date 3-speed unit by Collaro (with space for stereo head); there are full monitoring and superimposing facilities; pause control; magic eye recording level indicator; straight through amplifier feature; 6-valve amplifier, with monitoring through the high-flux speaker. Technical performance levels conform to the most critical limits of tolerance to ensure utmost fidelity of recording and reproduction.

Available next month **THE KONSOLLETTE FOUR**—fitted with latest type four track Bogen Heads.
Price 45 gns. inc.



hi-fi
**PRINTED
CIRCUIT**
British

38
GUINEAS

*including
microphone,
extension lead,
plugs and tape.*



*the symbol
of supremacy
in the
world of
sound*

Write for fully-descriptive literature to:
KURLAND RECORDING SYSTEMS LIMITED
Dept. KK • Tilly's Lane • High Street • Staines • Middx

HIGH QUALITY TAPE RECORDER SPECIALISTS!

BEST PART EXCHANGE

OFFICIALLY APPOINTED AGENTS FOR:

- | | |
|--------------|-----------------|
| ★ FERROGRAPH | ★ REFLECTOGRAPH |
| ★ SIMON | ★ GRUNDIG |
| ★ REPS | ★ BRENNELL |
| ★ VORTEXION | ★ WYNDSOR |

ALLOWANCE ON YOUR PRESENT TAPE RECORDER—HI-FI EQUIPMENT

MONO RECORDERS

Verdik	45 gns.
Geloso	24 gns.
Stuzzi-Mambo	39 gns.
Kurland Hi-Fi	56 gns.
Brenell 3 Star	58 gns.
Wyndor Victor	45 gns.
Walter 101	29 gns.
Walter De Luxe	42 gns.
Walter 505	57 gns.
Perth Saja	45 gns.
Perth Saja De Luxe	56 gns.
Telefunken 75 KL-15	52 gns.
Telefunken 85 KL	79 gns.
Grundig TK 20	52 gns.
Grundig TK 25	62 gns.
Grundig TK 30	72 gns.

Specto 161	49 gns.
Specto 171	39 gns.
Veritone Venus	58 gns.
Philips	38 gns.
Philips EL 3542	59 gns.
Simon Minstrelle	39 gns.
Simon SP4	95 gns.
Saba Hi-Fi	79 gns.
Vortexion WVA	89 gns.
Ferrograph 4 AN	81 gns.
Ferrograph 4 SN	88 gns.

STEREO	
Korting	68 gns.
Harting HM8	86 gns.
Brenell Mk.	92 gns.
Ferrograph 808	105 gns.

Ferrograph Stereo Add. 30 gns.

TRANSISTOR—BATTERY

Grundig Cub	26 gns.
Clarion	25 gns.
Fi-Cord	59 gns.
Butoba	69 gns.
Minivox	37 gns.
Stuzzi-Magnette	69 gns.
Steelman	55 gns.

MICROPHONES

Reslo	
Lustraphone	
Cadenza	
T.S.L.	
A.K.G.	

Grundig, Etc.

TAPES

B.A.S.F.	
Audiotape	
Irish Tape	
E.M.I.	
Ferrograph	
Grundig	
PRE-RECORDED TAPES	
ACCESSORIES	
TUNERS	
AMPLIFIERS	
SPEAKERS	
PICK-UPS	
MOTORS	
CONVERTERS	

THE BEST TERMS NO INTEREST

18-24 Months Terms Available
20% DEPOSIT UP TO 12 MONTHS

FREE SERVICING — FREE DELIVERY — FREE TAPE OFFERS — 150 MACHINES ON DISPLAY — OUR MAIL ORDER DEPARTMENT WILL DEAL WITH YOUR ENQUIRY BY RETURN. WRITE — PHONE — CALL FOR A QUOTATION ON YOUR MACHINE. A LARGE SELECTION OF USED TAPE RECORDERS.

Tel.: WIM 0709

REW

EARLSFIELD LTD. 545 GARRATT LANE, LONDON S.W.18

10 minutes by bus from Tooting Broadway underground station. 100 yards from Earlsfield Station.

Dear Sir

Let the British Recording Club panel of experts answer your technical queries. Answers of general interest will be published.

Mr. K. RUNTAN of Carlisle, says:

Having just finished reading the August issue of 'Amateur Tape Recording' I feel I must congratulate you on a most excellent magazine.

I will shortly be buying a recorder. The machine I've got my eye on is the Philips model EL.3541, four track, single speed, maximum reel size 7in. Now the problem is this, will owning this machine be a drawback if I decide to join your Tapesponding Club? I ask this because the EL.3541 having four tracks, I am a little confused as to whether or not it will replay tapes made on other machines having only two tracks.

Now for problem two. I have read of 'Echo Chambers' being used in recording for various effects and I would like to know if it is a complicated set-up or can the effect be produced quite easily by myself? A publication called 'The All in One Tape Recorder Book' says that some machines have an extra replay head that can be used for creating artificial echo effects. Has the EL.3541 got this facility.

ANSWER.—Thanks for the congratulations, Mr. Runtan. The answer to your first query is that you will be able to play half-track recordings on a quarter-track machine and vice-versa. This solves your problem for tapesponding.

You can of course buy an artificial echo chamber, price about £250 but the method using an extra replay head is fully described in the July issue of A.T.R. The Philips recorder you mention however, is not fitted with an extra head and there is no space for doing so.

Mr. H. McKEOWN of Belfast, Northern Ireland, writes:

I have a Philips EL.3527 recorder which as you know, has no facilities for superimposition. Would it be possible to include a switch in the circuit to allow this? I tried cutting one for the leads to the erase head, but the resulting 'recordings' were low in volume and very squeaky, and they did not register on the electronic eye when recording.

ANSWER.—You would be very unwise to attempt modifying your recorder to include a superimposing button. These machines are made on the Continent, and the circuits are fairly intricate.

To carry out proper superimposing means reducing the recording bias to a certain level and cutting out the erase bias completely. This will involve modification of the output circuit of the bias oscillator and is not just a simple case of fitting a switch.

Mr. R. I. BELSHAM of Sanderstead, Surrey, asks:

Will it be possible to fit in monitoring facilities on my 'Sound' A.20 which uses the 'Collaro' MK.4 deck? I wondered if a lead coming straight off the Rec./Replay head, using the 'Sound' (or suitable) high impedance earphones would do the trick.

ANSWER.—You cannot monitor directly from a recording head by simply connecting a pair of headphones across it.

Headphone monitoring facilities would, in your case, involve extensive modification to the recording amplifier

circuit and you would be unwise to attempt these without having a fairly thorough knowledge of the circuit used in the recorder. There may however be enough space to fit an extra recording head, from which to monitor, as shown in the article by F. C. Judd in the July issue of A.T.R.

Mr. P. E. R. CROSS of West Norwood, London, S.E.27, writes:

I wonder if you could help me with a problem I have, and which all my friends have too.

If I play a record on my turntable, and record it on my tape recorder, then play them both again so that they are synchronised at the beginning, then the record finishes just about five seconds before the tape recorder.

Why is this and how can I correct it? Does this show that tape recorders do not reproduce discs faithfully?

ANSWER.—The slight difference in timing between your record player and the tape recorder is possibly due to small speed variations, which may be due to fluctuations in the mains supply voltage. This slight difference may also be caused by tape stretching or contraction. A time difference of five seconds would mean only a minute and almost undetectable difference in pitch.

There is nothing you can do to correct this. Only highly professional recording equipment would maintain exact timing.

Mr. D. MOORE, of Liverpool, says:

I have recently bought a book entitled 'How to get the best results out of your tape recorder', by P. J. Guy. On page 100 of this book the author suggests that print through in a tape stored for more than 14 days would prove so troublesome that one might as well erase the tape completely. Is this correct? Before reading this I thought that recorded tapes could be stored pretty well indefinitely, providing precautions against stray fields, damp, etc., were taken. Has my youth been spent in ignorance?

Secondly, as a new tape recorder fan, I have been reading a number of magazines, and it has struck me that although technical reviews of tape recorders, tape decks and hi-fi equipment are quite common technical reviews of recording tape are non-existent. Surely, recording tape is the very basis of tape recording. Here I suggest there is room for improvement even in your excellent magazine.

ANSWER.—Recorded tapes can be stored almost indefinitely without print through occurring. As a precaution against this, however, it is good practice to run the tapes through occasionally or at least unwind and rewind them. The writer has tapes made six or seven years ago and these are still as good as when originally recorded.

Modern tapes have far less tendency to print through, providing the recording level is not excessively high to begin with.

With regard to reviews on the various makes of tape, the differences are so few that there is really little point in reviewing them. All the well-known makes have an approximately equal performance and there is little to choose between them. Tests made by the writer showed that for five different makes, the recording level for a given input varied by only a dB or so between tapes.

hi-fi perfection with enough volume to fill a small hall on BATTERY or MAINS

Walter
METROPOLITAN

BIG OUTPUT!

**BIG 2 WATTS
UNDISTORTED**

BIG REELS!

**5½" TO GIVE 3
HOURS PLAYING TIME**

**The only BIG recorder
with BIG performance
on MAINS or BATTERY**

Note these other features;—

Revolution counter • Transistorised
Mixing facilities • Superimposing facilities
40/15000 cycles amplifier response
Signal/Noise ratio better than -40db.



55
GUINEAS
(Batteries extra)

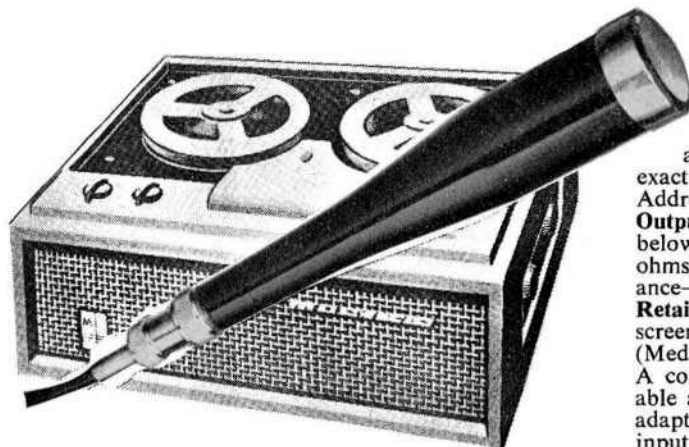
**The WALTER records or plays Outdoors
or Indoors . . . anywhere . . . everywhere**

Double your fun with this revolutionary tape recorder. It makes you independent of mains electricity supplies; yet it's full size (takes 5½" reels) and gives you BIG 2 watt output and faithful reproduction on batteries or on mains.

WALTER INSTRUMENTS LIMITED, GARTH ROAD, MORDEN, SURREY. Tel: DERwent 4421

Grampian DP4

brings out the best in any recorder



Even the most expensive recorder will only give its best performance if a good quality, reliable microphone is used. In the DP4, with a uniform wide frequency response from 50 c/s to 15,000 c/s, Grampian have developed an outstanding, moderately priced instrument which will please the most exacting recordist. The DP4 is equally suitable for Public Address, Broadcasting, Call Systems, etc.

Output Levels.—DP4/L low impedance—25 ohms 86 dB below 1 volt/dyne/2CM. DP4/M medium impedance—600 ohms 70 dB below 1 volt/dyne/2CM. DP4/H high impedance—50,000 ohms 52 dB below 1 volt/dyne/2CM.

Retail Price.—DP4/L complete with connector and 18 ft. screened lead £7.11.0

(Medium or High Impedance models £1.0.0 extra)

A complete range of stands, swivel holders, etc., is available also. A matching Unit (Type G7) can be supplied for adapting the microphone for a Recorder having a different input impedance, or when a long lead is required. Retail Price £3.5.0

Write or telephone for illustrated literature.

GRAMPIAN REPRODUCERS LIMITED

HANWORTH TRADING ESTATE, FELTHAM, MIDDLESEX

Feltham 2657



FOR . . .
Your Career . . .
Your Own
Business . . .
An Absorbing
Hobby . . .

A NEW PRACTICAL WAY OF UNDERSTANDING RADIO • TELEVISION • ELECTRONICS

Including: Transistors; VHF/FM; Hi-Fi equipment; Computers; Servo-mechs; Test Instruments; Photo-electrics; Nucleonics; etc. Radiostructor - An Organisation specialising in electronic training systems - offers a new self-instructional method using specially designed equipment on a "do-it-yourself" basis. You learn by building actual equipment with the big kits of components which we send you. You advance by simple steps, performing a whole series of interesting and instructive experiments—with no complicated mathematics. Instructional manuals employ the latest techniques for showing the full story of electronics in a practical and interesting way—in fact, you really have fun whilst learning! Fill in coupon below, for full particulars—.

POST NOW

To RADIOSTRUCTOR (Dept. G85)
READING, BERKS.

Please send brochure, without obligation, to:

Name

Address

10/60

(We do not employ representatives)

**BLOCK
CAPS
PLEASE**

**RADIOSTRUCTOR LEADS THE WORLD
IN ELECTRONICS TRAINING**

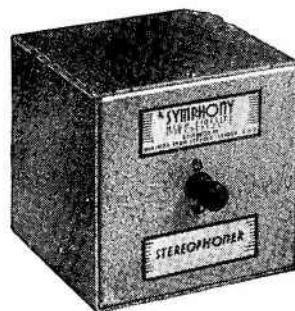
Hear music with new

STARTLING STEREO REALISM

for only £4.19.6!

Hear records, radio, tape

USING YOUR OWN ORDINARY RECORD, PLAYER (and existing records), RADIO, R'GRAM, MONO HI-FI EQUIPMENT, ETC., any make, any year, with a new enthralling stereo dimension and exciting realism. The Sterophoner will amaze and delight. Easy to connect. Manufactured in Great Britain under licence from the inventor, DR. HERMANN SCHERCHEN, internationally-known Swiss orchestral conductor.



Thousands of music lovers have found the Sterophoner the perfect low-cost solution to stereo ambitions—especially as so many have had to postpone plans for elaborate equipment owing to H.P. restrictions.

The Sterophoner opens the door to a new world of listening pleasure, cost only £4.19.6 plus 2/6 p. and p. C.O.D. (U.K. only) 2/- extra, OR SENT IMMEDIATELY FOR ONLY 20/- plus 5 monthly instalments of 19/-. Satisfaction or money-back guarantee. Fully descriptive Folder and Test Reports Free on request.

NORTHERN RADIO SERVICES (LONDON) LTD.

Dept. A.T.R. 11 King's College Road, N.W.3

Amateur Tape Recording



by Lorna Gulston

SMITHFIELD MARKET is a long-established, integral part of Belfast. It's roofed and permanent, a little world in itself where conventional shops stand cheek-by-jowl with dim dark caverns harbouring antique furniture thick with dust, huge grimed oil-paintings, sad marble clocks without pendulums, nasty Victorian china dogs, and now and again, if you've an eye for it, a piece of valuable solid silver hidden away, more likely than not, on top of an Edwardian commode. Push a path through the furniture and you come upon the instruments—an accordion with its paint scraped and half the notes sticking, a battered trumpet, and, most pathetic of all, the broken-stringed violin, a genteel creature with memories of better days who now finds her situation greatly distressing, and fie! That VULGAR cornet elbowing from the next shelf. Clearly no gentleman, he.

Then the gramophones, marvels of their age, but their age has passed and their great horns are comic and clumsy. Who will have them when right across the way they're flogging second-hand record players, play ten at three speeds, everything in p.m.o., Missus, any test you like. Book shops, too, full of Agatha Christie and Dickens, Denise Robins and Boswell, to say nothing of the volumes of wisdom and morality for the sober-minded papas and mammas of the last century—

"Hey, Elsie, listen to this bit about 'Hints for the Ettykett of Guests', wouldn't it slay you? Did anybody ever go on like that? Gee!"

In Smithfield you may acquire anything you could think of—a watch or a sideboard, a family Bible or a bike, yes, and even a tape recorder. There are plenty of those about, small cheap machines whose owners have graduated on to the big stuff, or early models which looked strange to me, even though they must have been manufactured within the last decade. Betty and I wandered through this dusty wonderland with the amiable enjoyment of those who aren't pressed for time. We had vague notions of looking for a record-player if we spied a good one cheap, but we hadn't really come as serious buyers, merely to stroll. The pity of it was that we strolled past the Pet Shop.

We shouldn't have looked in—we *knew* we shouldn't, but we did, and there it was, a fragment of tabbyhood for a single shilling perched on a pile of sawdust, gazing through the bars of its cage with an innocent and patient expression, and of course it was a she-cat, and of course nobody wanted it—and of course it left the Pet Shop tucked inside Betty's blazer, and that was how Smithy joined the family.

The "sitting tenants" were not impressed. Cinders (the neutered tom) spat and fumed and ran swearing from the house to brood in the garden like one of those horrid stone gnomes, and Trixie the terrier snarled and showed the whites of her eyes so that poor Smithy took refuge on my shoulder. After a day or two, however, Trixie fell in love with this new thing which, if she strained her imagination, might almost be a puppy, and Cinders condescended to dine in the kitchen instead of chewing balefully behind the dustbin.

It was—let's face it—a strain to have a baby in the house, a baby which flickered in fork-lightning fashion from room to room so that our progress through the place was a series of cautious goose-steps. Taken by and large, though, Smithy was a good little soul and she adored the tape recorders. The best way to keep her out of mischief was to switch to playback and let her sit and watch the spools revolve. One morning we found her squatting dizzily on the right-hand reel enjoying a free merry-go-round at 3½ while the unhappy Grundig heaved and moaned and staggered, and we wondered if Smithy's passion for tape was to be commended after all—until THE DAY.

THE DAY wasn't really a day, just a Sunday evening when the sun kept its heat and it was delightful to lounge in the garden in shorts and shirt collecting freckles and midge bites. We felt churlish, therefore, when Trixie roared her head off and we knew there was somebody coming through the gate to disturb us. Sure enough, when we went into the house there was a knock at the door. Smithy began to chase the excited Trixie up and down the hall, so I bundled them both into the dining-room, switched on the Grundig, and left the small cat entranced and peaceful, while Betty investigated the visitation.

"Visitation" was the right word. A tall hatchet-faced stranger dressed all in black strode down the hall with Betty, pale under her tan, bringing up the rear. "This lady says she has news for us," she explained. "Something grave and important." "Yes," said the woman in a deep sibilant voice, "I have news for you."

I went cold. "Come into the sitting-room," I managed. We sat down, and Betty said hoarsely, "Is someone ill? Mother or Dad?"

The spectre fixed Betty with a piercing gaze. "Both of them," she hissed.

Betty clutched the side of her chair, and I said, shocked, "Both my friend's parents ill?" "Very ill. Yours, too. Sick unto death." It was a dreadful moment. We sat stunned and speechless.

"And you, too—you are sick unto death," went on the ghastly visitor. "Your souls fester within you. See, there you are displaying your naked limbs on the Sabbath Day." She pointed accusingly at our shorts, implying that the Angels were obliged to blush and look the other way every time





they flew over our part of Belfast. "You are facing Eternal Damnation because of the sins of the flesh," she pursued. "Thousands of sinners are going to perpetual torment every day, but for you and your Loved Ones it is not too late. You can still be Saved. Look, I have the pamphlet here."

She delved in a large pigskin case which she was carrying and scooped out a handful of leaflets headed "I HAVE NEWS FOR YOU".

It was too ludicrous, but Betty and I were not amused. "Thank you, but we don't want your leaflets," I declined. "We have no time for your sort of antics." "Antics? ANTICS!" Her sallow face blushed the colour of a mouldy plum. "Young woman, I'll have you know that I began my organisation a mere eighteen months ago and already I have three hundred members. The entrance fee is a paltry half-crown per quarter, so for ten shillings a year you have all the blessings of a Second Chance."

"We're not half-way through the first one yet," pointed out Betty. "Ah, but already you have gone Too Far." "So, Madam, have you," I said grimly. "Will you please leave now?" "Not yet. You are still unconvinced. Now let me tell you, for ten shillings a year—"

From the next room came a most awful shriek, followed by a peal of maniacal laughter, and I remembered that the tape on the machine was a recording of a particularly gruesome play. "Hark!" Dracula held up a shushing finger, "Was that a cry?" Crashes, sounds of scuffling and violent screams answered her, and she clutched her pigskin bag with a convulsive movement. "Wh-what IS it?" she quavered.

There are moments in life when Inspiration comes without a whistle, and this was one of them. I recollected the plot of the play quite clearly. Winking like fury at Betty over Dracula's shoulder I said, "Oh, that's only Amy." "Amy? But who—I mean, oughtn't you to SEE to her?" I sighed. "Nothing anybody can do, I'm afraid. It's just one of her Turns. We were expecting it—it's not far off the six months since the last one." "Turns? Er—epilepsy, hysteria?" I sank my voice to a raven croak. "MADNESS," I said.

By now Betty had caught on. "Yes," she chipped in, "We're

allowed to keep her at home because most of the time she's quite normal, but every sixth month when the moon is coming towards the full—I think it WILL be full tonight—we know, and she knows, so we lock her away in that room until she's better. Sometimes she escapes, but it doesn't really matter. She may smash a cup or two, but she's harmless to us, or any other member of the family." "The danger is that with STRANGERS she goes absolutely berserk," I continued, taking up the story. "Why, the last time she just missed the milkman with a carving knife."

"A c-c-carving knife?"

"For meat, you know. You should have seen it quivering in the window-frame." I went to the door and opened it, so that the noise from the dining-room was plainer. To it was added the rattles of the dining-room door as Trixie hurled herself against it in a frenzy to get out and see what was going on. "Listen," cried Betty, grabbing a chair, "I think she's about to break loose. Quick, the barricades!"

"Aaaaaahhh," a long wail of terror came from behind us, and before you could say "Hell's fires" the Visitation was halfway down the hall, a confetti of pamphlets fluttering in her wake. "Let me out," she howled.

"There's not a moment to spare," I shouted, with the greatest enjoyment, and Betty flung fuel on the flames with "I believe the lock's giving way".

Dracula began to leap at the front door like a daddy-long-legs on a window. "Help!" she yelped, "Help, help, HELP."

So I helped by turning the handle and setting her free to fly kipper-footed towards the gate with her Uplift (moral) shattered for a long, long time to come.

When Betty and I had finished laughing ourselves silly we went into the dining-room. Trixie rushed past us to the garden for an indignant bark, but the kitten was not to be distracted from its enthralled enjoyment of the tape.

"Smithy," I said, as we grinned down at her, "I'm awfully glad we bought you."

A pert tabby face lifted for an instant with a crow of pleasure.

"Thanks, pal," returned Smithy, "I'm awfully glad you did."



**CITY SALE
&
EXCHANGE LTD**

**93-94
FLEET ST EC4**

PHONE: FLEet Street 9391-2

NOW AVAILABLE AND ON DEMONSTRATION

TAPE RECORDERS

Reflectograph A	95 gns.
Ferrograph 4A	81 gns.
Simon SP4	95 gns.
Brenell MkV	64 gns.
Philips 3542 4 track	59 gns.
H.M.V. Recorder	£50

SECOND HAND TAPE RECORDERS

Ferrograph 3A	68 gns.
Grundig TK20	38 gns.
Brenell 3 star	45 gns.

AMPLIFIERS

Quad 22 Control	£25. 0.0
Leak Stereo 20	£30. 9.0
Leak Control	£25. 0.0
Quad Main Amp.	£22.10.0
Jason J210	£37.10.0
Roger HG88	£37.10.0

SPEAKERS & CABINETS

Wharfedale W2	£29.10.0
Goodmans AL120	£29.11.0
Record Housing	£10.10.0

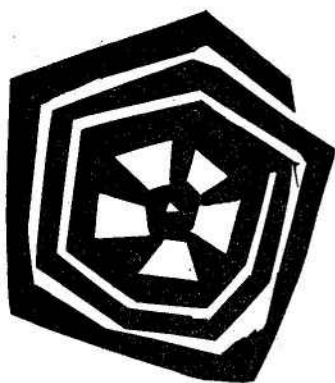
H.P. TERMS AVAILABLE

POST COUPON NOW!

Please quote for the enclosed

In part exchange for:—*/Please send details on:—* (* Cross out inapplicable.)

Name _____ Address _____



For ease of reading, particulars of Tapespondents are printed in the following order—name, occupation, address, interests, taste in music, type of machine and area of Tapesponding.

GÉRARD DÉVIGNAT, Electrician, age 18½, 89 Flat 2, Herrick Road, Saltley, Birmingham, 8. Music, writing, recording. Semi classics, opera and pop. Caruso, Gigli, Lanza, Secombe, John Hanson, Yma Sumac. Grundig TK 20, 5½ in. 3½. France, Spain, England, Belgium and Norway. Preferably female. English only spoken.

LEN WALDROM (Wife Gwen—3 children), Railway Signalman, 21 College Road, Kensal Rise, London, N.W.10. Woodwork, do-it-yourself all aspects, short-wave radio reception. Classical, opera, some jazz, hi-fi. Spectone 151, up to 7 in. 3½, 7½, 15. Anywhere (fair knowledge of German).

ALAN A. BEAL, 20 Bibsworth Avenue, Moseley, Birmingham, 13. Radio, music, motorcycling. All except modern jazz. Grundig TK 25, 5½ in. 1½, 3½. Australia, New Zealand and America.

T. G. WEBSTER, T.V. Camera Crew, 37 Bassett Road, N. Kensington, London, W.10. All types of music (including sacred). Webster, 7 in. 3½, 7½, 15. I wish to contact someone working on T.V. broadcasting in another country. U.S.A., Canada, Australia.

E. N. ANDREWS, Mechanic, 44 Brailsford Road, London, S.W.2. Music. Latin American, jazz, modern. Grundig/Elon, 3 in. to 7 in. 3½, 7½, 15. Spain, Latin America.

WILLIAM JOHN BOUNDS, Railway Engine Driver, 27 Beale Walk, Arle, Cheltenham. Hi-Fi, motoring. Classics. Ferrograph, Brenell, up to 8 in. 1½, 7½. Anywhere English spoken.

J. GUARD, British Railways, 1 Jamaica Terrace, Mousehole, Cornwall. Birds, sport, soccer. Popular. Ferrograph, 8½ in. 3½, 7½. English speaking countries.

DAVID A. HOPE, Physicist, 49 Manor Road, Rugby. Electronics, cars. Trad. jazz. Brenell Deck, 7 in. 7½.

T. WINTERMAN, Instrument Maker, 17 Grafton Place, Gillingham, Kent.

Inter-tape directory

Jazz. Collora Deck Mk. II, own amplifier, up to 7 in. 3½, 7½, 15.

E. HORNE, Builder, 53 Londesborough Road, London, N.16. Jazz. Sound 777/Minivox, up to 7 in. All speeds.

NORMAN LEWIS PUGH, Clerk, 73 Boundary Road, Epping, Sydney, New South Wales, Australia. Photography—Slide-a-Tape shows. Any string instruments and piano. Technicorder 4-watt, 7 in. 3½ and 7½. Anywhere.

GRAHAM JOHN WATKINS, Bank Clerk, 55 Applesham Way, Portslade, Sussex. Amateur Radio, Hi-Fi construction, printing. Various. Elizabethan Essex, 7 in. 3½, 7½, 15. U.K.

VICTOR G. JAMES, Foreign Travel Clerk, 23 Elms Road, Clapham, London, S.W.4. Travel, people, current affairs and everything in general. Everything except the really heavy stuff. Regentone RT 51, 7 in. 1½, 3½, 7½. Europe, South Africa and India in particular.

MARVIN HERSCHKOWITZ, United States Post Office, 275 Cypress Avenue, Bronx 54, N.Y., U.S.A. Varied from Chess to Recording. Varied, everything from Rock 'n Roll to Grand Opera. Webcor, 5 in. or 7 in. 3½, 7½. I would like to Tapespond with some English Girls from 18 to 22 years of age.

J. ROWE, Engineers Cost Clerk, 20 Waincliffe Drive, Dewsbury Road, Leeds, 11, Yorks. Stamp collecting, photography, tape recording and general interests. Military band, popular, light classical. Philips EL 3538, up to 7 in. 1½, 3½, 7½. United Kingdom, British Commonwealth, U.S.A., or anywhere (in English).

PETER TEAL, Industrial Chemist (heavy clay), The Elms, Blackley, Elland, Yorkshire. Science (particularly Chemistry and Ceramics Technology), Heraldry and National Customs, stamp, coin and paper money collecting, photography in a very amateur way, Round Table movement. Everything except ultra-highbrow, howling teenage morons, jazz and bagpipes. Clarion Transita, up to 3 in. 3½. Gramdeck, up to 7 in. 3.2, 4.33, 7½ (Clarion preferred). Scandinavia, Austria, Switzerland (I speak some German and an odd word or two of French), anywhere in North America, anywhere in U.K. over 150 miles away.

S. M. WICKRAMASINGH, Student Engineer Leyland Motors, 45 Broadgate, Preston, Lancs. Motor racing, football, cricket. Jazz (not hot), pops. Philips AG 8108, 7 in. 3½. America, England, Japan.

LINTON HOWELL - HUGHES, Schoolboy, age 15, Ashley House, Battledown, Cheltenham, Glos. Aero and boat modelling, printing, photography, radio control. Anything except extreme classical. Telefunken KL 85 up to 7 in. 3½, 7½. Anywhere (in English).

MISS ROSEMARY E. BALLARD, Smarden, Nightingale Road, East Horsley, Leatherhead, Surrey. Antiques, Stamp Collecting, people, children, record collecting, animals, tape recording, in fact everything interesting. Classical and light popular. Corsor 1602 4-track mono, up to 7 in. 3½. Throughout the world. All tapes in English welcomed and answered.

PETER LODGE, Clerk, age 19, 2 Hill Crescent, Hornchurch, Essex. Skin-diving, gliding, fencing, science fiction. Jazz (modern), some pops. Walter 303 De Luxe, up to 5½ in. 3½, 7½. Any English speaking (U.S.A., New Zealand, Australia).

FRANK PARKE, Fitter's Mate, 35 Exmouth Avenue, Corby, Northants. Sports, boxing (No. 1). Very little besides modern. Philips, 7 in. 1½, 3½, 7½. All over.

NORMAN COCKILL, Insurance Supervisor, 12 Tonbridge Road, Reddish, Stockport. Motoring, gardening, do-it-yourself. General. Elizabethan "Mayfair", up to 7 in. 3½, 7½, 15. Anywhere.

EAGLE TAPE SOCIETY: Secretary, Mr. W. C. Walker, 252 Plashet Grove, East Ham, London, E.6; President, Mr. A. Henderson, 30 Randolph Road, Southall, Middlesex. Bankers. Photography (35 mm. colour), zoological, youth clubs, hospital work, etc. Various, light classics, choral, operatic. Various, up to 7 in. 3½. Great Britain, France, U.S.A., Canada.

A. J. ROBERTS, Clerical (Export), 70 Chipstead Valley Road, Coulsdon, Surrey. Music and cine photography. Classical/Operatic. Philips EL 3538, up to 7 in. 1½, 3½, 7½. Anywhere in English or French.

IAN CAPLAN, Schoolboy, age 14½, 49 Lancing Road, Orpington, Kent. Swimming, stamps, travelling. Popular songs and tunes. Grundig TK 25, 5½ in. 1½, 3½. Not particular.

GEORGE AINSWORTH, Fitter (Aircraft), 22 Birchington Road, London, N.W.6. Photography, touring by motorcycle, English and Continental I.M.T.C. Shearing, Lee, May, Mozart, Beethoven, Bach, Tchaikovsky. Brenell Mk. V, up to 8½ in. 1½ to 15. Anywhere, Italy,

Germany. English spoken only but willing to try and understand and learn another tongue.

THOMAS MCINTOSH, Power Station, 62 Clydesdale Avenue, Paisley, Renfrewshire. Motorcycling and fishing. Modern pops and classics. Truvox President and Geloso, 3 in., 4½ in., 7 in. 3½, 7½. Anywhere overseas.

DEREK KNIGHT, Lab. Assistant, 82 Worting Road, Basingstoke, Hants. Modern history, customs, zoology, films, stamp collecting, short wave radio, travel, general. Classical and jazz (great fan of Harry James). Elizabethan S2, 5 in. 4.8, 7½. Anywhere abroad except U.S.A.

L. DAVID FOWLER, Deputy Regional Commissioner, 8 Rycroft Way, Luton, Beds. Colour photography and Norfolk Broad. Concert and Piano-forte. Telefunken 85, 7 in. 3½, 7½. Britain and Switzerland.

GEORGE D. MORRIS, Insurance Representative, 55 Highgate Road, Sileby, Leicester. A little German spoken; wish to improve. Psychology, swimming, photography. Most light music. Elizabethan Princess, 7 in., 1½, 3½, 7½. Anywhere abroad but Germany and Austria in particular.

GRIFFITH THOMAS, Teacher, 22 Gannow Road, Rubery, Rednal, near Birmingham. Modern domestic architecture, verse and prose reading, speed shorthand, theatre, sociology, food reform. Trad. jazz, light classical. Brenell Mk. 5, up to 8½ in., 1½, 3½, 7½, 15. Any English speaking country.

ANTHONY H. ADLINGTON, Engine Fitter, age 22, 47 Elder Street, Wimbish, Essex. Anything. Trad. jazz, light classical, anything else. Fi-Cord, Telefunken, 3½ in. 5 in. 1½, 3½, 7½. Anywhere (female if possible).

JANICE FLETCHER, Schoolgirl, age 14, 13 Tynemouth Drive, Enfield, Middlesex. Swimming, dancing, reading. I like dance and popular music. Philips EL 3538, up to 7 in. 1½, 3½, 7½. New Zealand or Australia.

Mr. A. GORDON, Sales Representative, 12 Lily Court, 6th Avenue, Florida TVL, South Africa. Motoring and life in South Africa, world affairs, travel. Classical and modern music. Telefunken, Magnetophon, 5 in. 1½, 3½. (Tape-spondence at 1½). British or French residents in Algeria, Egypt or France and particularly with the Desert Locust Control wherever they are.

J. HERKES, Department Supervisor and Music Teacher, 445 Whalebone Lane North, Chadwell Heath, Romford, Essex. Amateur radio. Music of most types, piano particularly. Ferrograph AN, 7 in. 3½, 7½; also Grundig Cub, 3 in. 3½. Anywhere.

R. H. LAYMOND, Veneer Apprentice, age 16, 38 Clifton Court, London, N.W.8. Pets, cars. Popular, blues. Grundig TK20, up to 5½ in. 3½. France.

BARRIE ESSEX, age 17, sixth former, 61 Quarry Lane, Northfield, Birmingham, 31. Recording, 8 mm. cine, short wave radio, youth hostelling

(in a small way), amateur hypnotism, people in general, girls in particular. General, modern, popular, light classical, organ, Hawaiian guitar, shows, Philips AG 8109, up to 5 in. 3½. U.S.A., Canada, France, England. All English speaking countries. Girls welcome.

JOHN JOSEPH CULLINANE, Factory Worker, 71 Buckingham Road, Harlesden, London, N.W.10. Music, films, sport, stamps, writing. Classical, traditional. Grundig Cub. U.K., U.S.A., Ireland, France.

ROY BOWER, Health Inspector, 40 Ashford Road, Withington, Manchester, Lancs. Jazz, cinema, travel. Jazz (traditional and modern). Stella ST 450, 7 in. 7½, 3½, 1½. U.S.A.

DENNIS F. TODD, Stockbrokers Clerk, age 26, 53 St. Swithons Road, Bournemouth, Hants. Music, travel, theatre, photography, motoring. International folk songs and dances. Classical, prefer 16th and 17th centuries. Brenell Mk. 5, up to 7 in. 3½, 7½, 15. U.K., Holland, Germany, Scandinavia.

Mrs. NAN MOORMAN, Professional theatre organist, 76 Smitham Bottom Lane, Purley, Surrey. Music, travel, all intelligent topics. Modern jazz, classical and all organ music, decent pops (not rock). Two Philips machines, up to 7 in. 1½, 3½, 7½. Anywhere. I am always interested to receive tapes and will always reply without preliminary letter. Am also member of T.R.I., speak fluent French and a little German.

JAMES VALLORY, Miner, 63 Coyle Avenue, Drongan, Ayresshire. Anything and everything. Everything except classics. Stellaphone 451, 5 in. 3½. Everywhere English is spoken.

JOHN J. PARRY, Clerk, 26 High Street, Pwllheli, Caernarvonshire. Aviation, astronomy, people, rambling, Toc H., psychology. Modern jazz, vocal groups, pops of the 40s. Elizabethan, up to 7 in. 3½, 7½. United Kingdom, U.S.A., Canada.

WILLIAM A. BOGG, Company Secretary, 6 Ringlow Avenue, Swinton, Manchester. Motoring, travel, international events (non-political). Light classical, Spanish and Latin American, top British and American singers and bands. Grundig TK20, 5½ in. and 3 in. 3½. U.S.A., Canada, Great Britain.

ROY GARDNER, Decorator, 33 Uplands Road, Woodford Bridge, Essex. Hi-fi, stereo, model cars and trains, photography, etc. Mainly light and classical music but broadminded. Brenell Mk. 5 (stereo) and Ferrograph 3AN, up to 8½ in. 1½, 3½, 7½, 15, also 15/16 in. at a pinch. Mainly England.

MICHAEL J. F. IRELAND, Bank Clerk, "Lavengro", Thorpe End, Norwich, Norfolk, NOR 50Z. Music, recording, T.V., radio. Very broad—practically all except chamber music. Sound 777, Grundig TK5, up to 7 in. 3½, 7½, 15. U.K. or English speaking overseas.

Mr. G. W. BARKER, Civil Service, 62 Eldon Road, Marsh, Huddersfield, Yorks. Gardening, tropical fish, general.

Some pop, not opera or classical or musical comedy. General "square". Philips EL 3515, up to 7 in. 3½. Anywhere English is spoken.

PETER S. ANDERSON, Engineer, 10 Orwell Place, Edinburgh, 11. Model engineering, 35 mm. slides, photography. Light music, Strauss waltzes, marches. Truvox, 5 in. 3½, 7½. Any part if English speaking.

H. GEORGE SWAN, age 44, Market Gardener, 452 Wortley Road, Rotherham, Yorkshire. Load speakers, T.V., radio F.M. construction. Light classical, not rock 'n' roll, Bing Crosby or Mantovani, Reg Dixon on organ and any good organ. Ferrograph, any size spool, 3½, 7½. Anywhere English is spoken.

Mr. I. M. LLOYD, Schoolmaster, (qualified Min. of Ed.), 54 Frances Crescent, Bedworth, Nuneaton, Warwickshire. Music, photography, motor touring home and Europe. Classical, modern light (not jazz, etc.), organ. Philips AG 8109, 5 in. 3½. Britain—anywhere.

R. E. COOPER, Quantity Surveyor 70 Clarence Walk, Meadvale, Redhill, Surrey. Hi-fi, building, local interest. Popular and light classical, ballet, Colloredo Tape Transcriber with Mullard Type 'C' Preamp and Leak amp., 7 in. 3½, 7½, 15. Anywhere.

GEORGE G. TONGS, Printer (photo. and offset), 127 Shepherds Bush Road, London, W.6. Psychic matters, most other interests. Pop, jazz, light classical. Grundig TK 5, 5½ in. 3½. Any place, just send tape, all replied to.

Mr. F. FOWLER, Jnr., Forestry Worker, 9 High Street, Stourton, Warminster, Wilts. Photography, campanology, dancing. Military bands, organ, cinema and church. Philips, 3 in., 5 in. 3½. Any part, with young lady school-teacher, 26 to 36 years, or anyone.

ALAN B. GOSNELL, Tech. Assistant, 14 Willow Gardens, Ruislip, Middlesex. Music, photography, natural history, anything. Classical, light and modern, some pops, no jazz. Philips EL 3515, up to 7 in. twin track. 3½. Anywhere, but especially Holland, Germany (little German spoken), U.S.A., Canada, Australia.

ALLEN DAVIES, Painter and Decorator, 87 Norleane Crescent, Greenlands Estate, Runcorn, Cheshire. Photography, sports, reading. Popular music (tenors preferred), Mario Lanza, H. Secombe. Grundig TK 20, 5½ in. Any part of the world.

PETER ARCHER, Wines and Spirits Stock Clerk, 16 Cornwall Street, West Hartlepool, Co. Durham. Wines, outdoor bowls, T.V. adverts., humorous and otherwise, anything. Musical shows. Elpico Geloso G.256, 3½ in. 1½. Australia, South Africa.

ALAN S. DAVIES, Printing Trade, 3 Hooley Range, Heaton Moor, Stockport, Cheshire. 35 mm. colour photography, travel. Traditional jazz and all other music. Elizabethan Princess, 7 in. 7½, 3½, 1½. Europe, especially Switzerland, Central America. All tapes answered.

O. C. ROWLEY, Radio Engineer (own business), P.O. Box 19, Livingstone, N. Rhodesia. Cine 8 mm., music, radio, tape. Classical mainly, but all types except jazz. Grundig TK 30, 7 in. 3½, 7½. Anywhere.

B. K. RIBTON, Regular Army (Vehicle Branch), 14 Gordon Square, London, W.C.1. 8 mm. cine and 35 mm. photography, dabbler in radio or anything electrical. Popular and classic (all types). No rubbish! Simon SP4, 7 in. 3½, 7½. Anywhere (English spoken only), including B.F.P.O. Numbers.

DAVE STEVENS, Journalist, 152 Meads Lane, Seven Kings, Ilford, Essex. Sport, cinema, theatre, travel, jazz (modern and traditional), photography and reading. Some pops, jazz (modern and traditional), few classics. Elizabethan Princess, 7 in. 1½, 3½, 7½. England, Sweden, Denmark, Norway, Australia, New Zealand, and United States of America.

RONALD SMITH, Administrative Clerk, No. 3 Flat, Oak Road, Brewood, Stafford. Cars, photography, etc. All kinds of music. Walter 101, 5 in. 3½. Any part.

VICTOR TIMMER, Dutch student, studying, age 17, Woodnewton Tut, Est., Hanwell Castle, Banbury, Oxon. Sound reproduction, cars, different nationalities. No classical, modern and traditional jazz (Brubeck). Elpico Geloso, 3½ in. 1½. Anywhere (I always go to Holland for the vacations).

Mr. P. A. TRANFIELD, Grocery Storeman, St. Helene, South Side, St. Sampsons, Guernsey, C.I. Photography, reading, tape recording. Pop songs and classical. Walter 101, 5 in. 3½. U.S.A., France, England.

DENNIS JOHN PETERS, "Bobst" Cutting and Creasing Machine Minder, 6 Preston Drive, Ewell, Surrey. Colour photography, hi-fi and stereo. Modern jazz and good vocalist Sinatra, Ella, etc. Brenell 3 Star, up to 7 in. 1½, 3½, 7½. U.S.A.

TONY CARRUTHERS, Motor Trade, "Moongates", Cherry Park Close, Torquay, Devon. Colour photography, motor sport, water skiing and other sports. Jazz and other light music. Elpico TR 350, up to 7 in. 3½, 7½, 15. Anywhere (English spoken only).

COLIN ANGUS MCLAREN, Sound and T.V. Studio Engineer, 88 Thornlaw Road, West Norwood, S.E.27. Hi-fi, electronics, 35 mm. colour, film shooting and projection. Very light (Mantovani), no jazz. Ferrograph 4A, Minivox, Grundig Cub (most popular makes of machines at my disposal), up to 8½ in. Any speed. U.S.A., Canada, Australia and New Zealand.

IAN GLENN, Entertainer, 126 Longridge Road, Ribbleson, Preston, Lancs. Music, magic, fishing. Light music. Grundig, 5 in. 3½. Anywhere.

JOHN (SEAN) POWER, Business Proprietor, 44 Cross Street, Skerries, Co. Dublin, Eire. Singing, tape recording, travel, light music. Singing (folk), light music. Telefunken, 5 in. 9.5, 4.75. U.S.A. and other countries.

Miss JANET L. COOK, Shorthand Typist, "Westville", 240 Ombersley Road, Worcester. 8 mm. Cine and 35 mm. colour photography. Popular dance, musical shows, light classics. Grundig Cub Portable/Mains, 3 in. 3½. Anywhere where English is spoken.

IAN BROWN, Schoolboy, age 15, 28 Hare Law Gardens, Annfield Plain, Stanley, Co. Durham. Automobiles, sport, films. Popular and some jazz. Sound Belle 333 (which employs differential tape speed). Anywhere in England.

JOHN BARNES, Carpenter, Box 482 P.O. Cairns, North Queensland, Australia. Touring, hunting, photography. All music except rock 'n' roll. Philips Hi-Fi, 3 in., 5 in., 7 in. 1½, 3½, 7½. All parts (in English).

PETER JOHN VERRALL, Civil Servant, Hillway Cottage, Ditchling, Sussex. Photography, music, motor cycling, theatre, travel. Most kinds of music, depends upon mood. Saba, up to 7 in. 3½, 7½. Britain, U.S.A., Canada (or Americans and Canadians resident in this country).

RAYMOND THOMAS DAVENPORT (wife Ann and baby Jill 1½ months), Representative, 23 Donnington Avenue, Cheadle, Cheshire. Motoring, people and places. Any kind from any country. Grundig TK25, 5½ in. 3½, 1½. Anywhere.

A. P. BURT, Surface Grinder, age 20, 27 Queens Avenue, Newport Pagnell, Bucks. Sailing, aircraft and gliding. All types except highbrow and jazz. Wyndor Viscount, 3 in. to 7 in. 15, 7½, 3½. Anywhere (in English).

Mrs. JULIA WILKINSON, Housewife, The Lamb Inn, Tilkey, Coggeshall, Essex. Reading, public house trade, jiving. Pops, trad. jazz and some classic. Grundig TK20, 7 in. 3½. Australia, America. Any English speaking country.

BERNARD JOHANSON, Mechanical Sweeper Driver, 103 Meadfoot Road, Willenhall, Coventry, Warwickshire. Photography and general. Popular. Korting Mk. 112, 7 in. 3½. America.

A. J. STURGE, Storeman, 55 Garrick Road, Greenford, Middlesex. Music, reading (idle as possible). Classical, film music, jazz, Sinatra. Grundig TK35, 7 in. 1½, 3½, 7½. Anywhere.

BRIAN TRUEMAN, Upholsterer, age 18, 55 Orpington Avenue, Newcastle upon Tyne 6. Badminton, all sports. Opera, trad., rock 'n' roll, any music. Grundig TK5, 5½ in. 3½. Any.

IAN MACLEAN, Chair Caning, 54 Broad Road, Lower Willington, Eastbourne, Sussex. Handicrafts. Organ and military. Walter 101, 3 in. 3½. Stornoway, Lewis.

Mr. MYFYR E. MEREDITH, Clerk, 10 Granville Street, Cophorne, Shrewsbury. General, no sport. Operatic, folk songs, solos. Grundig TK8 (3D), 7 in. 3½, 7½. Anywhere, in English.

ROBERT LEE, Solicitor's Clerk, 40 Middlewood Street, Gorton, Manchester, 18, England. Fishkeeping, photography, chess, hiking. Light music, lighter classic, musical shows, etc. Walter 101, 5 in. 3½. Any part (English speaking only).

PHILIP LORENTZ, Post Office Engineer, age 17, 228 Queenswood Drive, Leeds, 6. Photography, radio, rock 'n' roll, guitar. Goon addict—anything for a laugh. Carol, 5½ in. 3½. Anywhere. No need to write first, all tapes answered.

ALAN MORTON, printer, 51 Westwood Park Road, Peterborough. Motoring, photography, linemanship and music. Grundig TK3, up to 7 in. 3½, 7½. Scandinavia, or any English speaking country.

Miss BARBARA E. SMITH, Civil Servant, 45 Oakley Road, Warlingham, Surrey. Gilbert and Sullivan, music, theatre, books, travel. Opera, operetta, classical (not pop or jazz). Philips 3515, up to 7 in. 3½. Would like to contact Gilbert and Sullivan addicts particularly in Australia or America—30 to 50 age group preferably.

JOHN MUNRO, Audit Clerk, Library House, High Street, Lissie, Morayshire. Music, stamps, reading, swimming. Jazz (trad.), popular (Sinatra, Boone, Mantovani), hillbilly, shows. Sound "A20"—Avon, 7 in. 3½, 7½, 15. Anywhere, all tapes answered.

BERNARD JAMES, age 26, Progress and Production Control Clerk in a firm manufacturing printing machines, 63 Ham Park Road, London, E.15. Photography, holidays in Amsterdam. All kinds including light classical. Crown, 7 in. 1½, 3½, 7½. Holland and France. Up to age of 26, particularly Holland. English only spoken, learning French.

JOHN M. McKEON, Laboratory Technician (studying O.N.C. Chemistry), 12 Checker Walk, Abingdon, Berks. Amateur drama (will exchange Taplays), photography, off-beat poetry (O Nash, H. Belloc, Ard Slok, etc.), psionics, feiffer. Trad. jazz, Lehrer, Paddy Roberts, 3 a.m. slow beat and many classics. Fidelity Argyll, up to 5½ in. 3½. Anyone speaking English. I also have a smattering of French and a very little Russian.

CHARLES SUMMERS RILEY, Joiner, 54 Gordon Street, Buckie, Banffshire, Scotland. Photography, recording, woodwork. Modern ballads, redemption songs. Grundig TK20, up to 5½ in. 3½. Sydney, Australia and France.

STANLEY MUNDY, Tool Salesman, "East Lyn", 52 Brook Road, Fishponds, Bristol. Writing songs, recording, amateur drama and variety. Classical, pops, goon type (not jazz or rock). Grundig TK5, 3 in., 5½ in. 3½. Anywhere if English spoken. (My wife is a Girl Guide Captain and has all my interests.)

JOHN LEVISS (Sunderland Sound Services), Recording Engineer, 28 Viewforth Terrace, Sunderland, Co. Durham, England. Swimming, sailing, dialect songs, sound effects and transferring tape to disc. I will shortly commence a new service whereby people living overseas can forward greetings messages on tape for such events as weddings, birthdays, anniversaries, etc. I will then transfer the message to disc and post the disc so that it reaches the

person on the day indicated. The tape will be posted back to the sender. Have variety of tape recorders, Master Sound System disc cutting equipment and P.A. equipment. Mainly Ferrograph, up to 8 1/2 in., all speeds but mainly 3 1/2, 7 1/2. S. Australia, particularly Adelaide.

D. J. R. HUTCHON, Student, age 15, 17 Merchiston Place, Edinburgh. Photography, radio. Pop music. Grundig TK5, 5 1/2 in., 3 1/2. New Zealand, Australia, America.

DAVID T. BREWER, Pastor, Methodist Church, Theological Student, Box 185, Wilmer, Texas, U.S.A. Music, photography. Semi-classical, popular. Wollensak, up to 7 in. 3 1/2, 7 1/2. Europe, British Isles.

STANLEY JOHN YARWORTH, Long distance lorry driver, c/o 40 "The Hyde", Purton, nr. Swindon, Wilts. Old people's work and recording. Salvation Army bands. Ferrograph 4/SN, up to 8 1/2 in., 3 1/2, 7 1/2. Any.

PHILIPS A. DIEHL, Student, age 20, Box 186, Bridgewater College, Bridgewater, Virginia, U.S.A. Photography, hi-fi, Spanish. Popular and organ. Wollensak T-1500, 7 in. 7 1/2, 3 1/2. Anyone from Spain or any Spanish speaking person.

STEVE SCHLUSSEL, American student working around the world, age 20, Horton Grange, Ray Mead Road, Maidenhead, Berks. Travelling, coin collecting (British). Jazz (MJQ), Kingston Trio, June Christy and small combos. Telefunken 75, 5 in. 1 1/2, 3 1/2. U.K., Commonwealth, and English speaking students.

BERNARD PEOPLE, Telephone Engineer, Icknield Caravan Site, Andover, Hants. Science fiction (A.S.F.), the history of trad. jazz, very general. Mainly trad. jazz but can listen to nearly anything. My wife likes pops. Gainsborough I, up to 7 in. 1 1/2, 3 1/2, 7 1/2. U.S.A., Canada, but anywhere English is spoken.

HOWARD McQUAID, City Fireman, 17021 Chatfield Avenue, Cleveland (11), Ohio, U.S.A. Tape recording, stereo tapes. Light classics, popular show tunes. Norelco EL 3536A, 7 in. 7 1/2, 3 1/2, 1 1/2. Any English speaking.

HAROLD HOLMES II, Engineering Draftsman, Old Post Office, Box 9245, Chicago, 90, Illinois, U.S.A. Record and tape collecting (hi-fi and stereo), photography (black and white, 35 mm. colour, 8 mm. cine), people in general and learning about countries other than U.S.A. Classical to popular. Webcor 2007, up to 7 in. 3 1/2, 7 1/2. Anywhere, preferably outside U.S.A. with anyone speaking English, including girls. Will reply to all—no introduction necessary.

Mr. A. McINNES, Telephonist, 114 East Princes Street, Helensburgh, Dumbartonshire, Scotland. Gardening, fishing, woodwork and reading. Light music, folk songs, no jazz. Telefunken KL85K, up to 7 in. 3 1/2, 7 1/2. Any part.

Miss A. M. MOON, Headmistress, "Lanteglos", Ithen Abbas, Winchester, Hants. Many and varied. All except rock 'n' roll, especially vocal. Vortexion, Repts, up to 8 1/2 in. 3 1/2, 7 1/2, 15.

British Commonwealth, France, Italy, Scandinavia.

JOHN T. JOHNSON, B.R. Loco. Shedstaff, 34 Compton Road, Brighton, 5, Sussex. Recording, stamp collecting. All types (other than grand opera). Elpico Geloso G256/E, 3 1/2 in. 1 1/2 only (facilities for dubbing from 3 1/2). Any English speaking countries.

P. A. QUESTED-HARRIS, Driving Instructor, Castle Banks, Lewes, Sussex. Recording, travel, Egyptology, motor-ing. All except Chamber music. Telefunken, 5 in. 1 1/2, 3 1/2. Any Commonwealth country and Germany.

C. R. PACKHAM, British Railways, 8 Tilbury Way, Brighton. Recording. All types. Philips EL 3516G, 7 in. 1 1/2, 3 1/2, 7 1/2. English speaking.

TED GILES, Professional Ambulance Driver, 83 Ditchling Road, Brighton, Sussex. Anything except sport. Anything except rock 'n' roll and most modern singers. Philips AG 8108, up to 7 in. 1 1/2, 3 1/2, 7 1/2. Anywhere.

ERNIE PEMBROKE, Grocer, 53 Applesham Way, Portslade, Sussex. Amateur printing, cars. Varied, not opera. Grundig TK5, Stella 451, 5 1/2 in. 3 1/2. Anywhere.

R. CLAIRE SARGENT (widow, age 50), Cinema Cashier, 196 Leicester Road, Wigston, Leicester. Ballroom dancing, writing (verse), reading. Pops, light opera, ballet (anything but jazz and Bach). Elpico also Clarion portable, up to 7 in. 3 1/2, 7 1/2. Anywhere English is spoken.

JACK HOWARD, mainly writing, 27 Clitheroe Road, London, S.W.9. Inland waterways exploration, writing, making friends. Opera to pops—providing it's good. Lane (7 1/2 only), Phonotrix, 3 in. to 7 in. 1 1/2, 3 1/2, 7 1/2. Any (English only spoken). Note—3 in. spools only at lower speeds to save cutting.

PETER LOUGH, Advertising Trainee, age 18 1/2, 11 Moor Park Road, Northwood, Middlesex. Other people, recording. I enjoy listening to any music but prefer classical. E.M.I. TR 51, 7 in. or 8 in. 3 1/2, 7 1/2. Australia or U.S.A.

L. S. DAY, Cost Clerk, 41 Moseley Avenue, Coventry. Painting, touring. Light classics, jazz. Uher, Simon SP 4, 7 in. 3 1/2, 7 1/2. U.S.A.

RICHARD D. KING, Drama student, 21 Astonville Street, Southfields, London, S.W.18. Theatre, music, recording: British cardboard—type goon humour. Classical only. Gainsborough I, 3 1/2 in. 7 1/2, 3 1/2, 1 1/2. U.S.A. and Australia.

KENNETH SMITH, Dispatch man, 67 Thornacre Road, Wrore, Shipley, Yorks. Chess, tape, general. Any (but good). Regentone, up to 7 in. 3 1/2, 1 1/2, 7 1/2. Anywhere. No need to write first.

JOHN STANLEY STOYLES, 20 Yockleton Road, Lea Hall, Birmingham, 33. Youth clubs, Royal Observer Corps, sound reproduction of all kinds. From Mozart to MJQ. Philips AG 8108, up to 7 in. 1 1/2, 3 1/2, 7 1/2. Anywhere (in English).

RONALD WHISTON, Draughtsman, 125 Perrywood Road, Great Barr, Birmingham, 22A. All sports, T.V.,

general interests. Bach to bop and Bach again. Grundig TK 25, up to 5 1/2 in. 1 1/2, 3 1/2. Anywhere English is spoken.

EDWIN SEADEN, Shoe Repairer, 11 Hereward Road, London, S.W.17. Tape and taping. Country and Western Folk. Wyndor Viscount, up to 7 in. 3 1/2, 7 1/2, 15. Anywhere.

JACK SIMPSON, Photographer, 31 College Avenue, Gillingham, Kent. Bird song recording. Ferrograph, 8 1/2 in. 3 1/2, 7 1/2.

Mrs. SHEILA WAKELY, Housewife, 2 children, 5 1/2 and 3, 3 Chadwell, Ware, Herts. Stamp collecting, secretary local tape recording club. Anything but rock 'n' roll. Symphony, up to 7 in. 3 1/2 and 7 1/2. Anywhere.

WILLIAM JOHN BOUNDS and wife Mabel Beatrice, Railway Driver (engine), 27 Beale Walk, Arle, Cheltenham. Photography and tape recording, hi-fi tape recording. Classic and organ. Ferrograph and Brenell, up to 8 1/2 in. 1 1/2 to 15. Great Britain.

Mr. H. F. TYSALL, Tech. Clerk, 36 Ridgethorpe, Coventry, Warwickshire. Still photography, painting. Classical and light musical play. Uher, 5 1/2 in. 3 1/2, 7 1/2. Australia, U.S.A., New Zealand.

COLIN WHITAKER, Draughtsman, 43 Grays Road, Stockton-on-Tees, Co. Durham. Photography, motoring, engineering. Popular classics, musical comedy, some pop music. Grundig TK 30, 7 in. 3 1/2, 7 1/2. Anywhere, preference Australia.

ADDRESS CHANGES

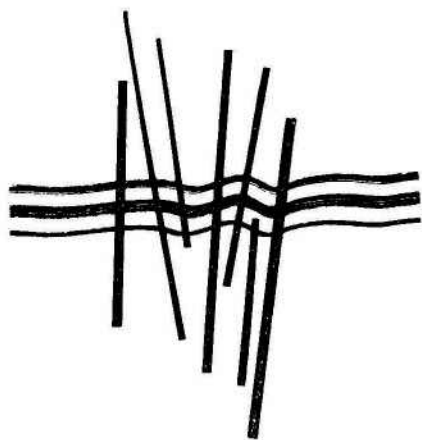
The address for Paul Michael WALLACE (entry in August A.T.R.) should now read 4 Priory Gardens, Chiswick, London, W.4.

The address for J. Bruce A. BRAIDWOOD (entry in June A.T.R.) should now read Rossmore, Chislehurst Road, Sidcup, Kent, and the following details added: A little French and Spanish spoken. Any Western World Countries outside U.K.

The address for Charles TAYLOR (June A.T.R. entry) is now 14 Ballindan Terrace, Dundee Angus, Scotland.



"Hey, Dad, did you know that there is a lot more than seven inches of Tape in a 7in. Spool?"



Tape and disc review

by Stanley R. White

A NEW company "Bi-Tapes Ltd.", of 78, Upper Berkeley Street, London, W.1, have commenced the release of a series of pre-recorded tapes. Here is a first review of their products. The initial aim of the company is to issue "pop" materials of the widest possible appeal.

"Ian Daniel 3"—Swing and Latin.

BI TAPES. LJA 103. 3½ i.p.s.—monaural. 52/6d.

Side 1:

"Capuccino Mambo"; "Miserlou"; "Voo Doo Moon"; "Anema e Core"; "The Breeze and I"; "Per Favor"; "Venus"; "Caravan".

Side 2:

"Swinging Preacher"; "Billy Boy"; "Ugly Child"; "Clementine"; "I'll Remember April"; "How High the Moon"; "But Not for Me"; "Air Mail Special".

This is the best of the Bi Tapes at present on the market. The trio features Piano, Bass and Drums plus Bongo playing by Ian Daniel himself. The first side Latin numbers are pleasant enough, but I much prefer the Swing style of the second track. I don't know whether Ian Daniel himself is the vocalist on some of these swing numbers, but whoever it is certainly styles himself on the famous jazz pianist-vocalist "Fats" Waller—the resemblance is almost uncanny at times. The second track will be the most popular with the majority I'm sure.

1 hour playing time—5" reel.

"Ed Sones and The Rhythm Five".

BI TAPES. RRA 102. 3½ i.p.s.—monaural. 52/6d.

1 hour playing time—5" reel.

Ed Sones is featured on the electric guitar; Johnny Cooper—vocal; Ricky King—guitar; Eddie Ovey—drums; John Robinson—bass.

This tape presents 23 tunes, some Latin but mostly rock 'n' roll. Tunes include "Juke Box Fury"; "Hound Dog"; "Midnight Sun" and "Ramrod".

This is all very fine, but the boys bash out one number after the other and succeed in raising a devil of a din in doing so. Maybe the guitar playing is good at times, and I've no doubt the teenage tape fans will want this—but not for me, thank you.

"Got What It Takes".

Mike Dalton with Ed Sones Rhythm Five.

BI TAPES. RRB 107. 7½ i.p.s.—monaural. 38/6d.

30 minutes playing time—5" reel.

Side 1:

"You Got What It Takes"; "Love-a Love-a Love-a"; "Three Steps To Heaven"; "Cut Across Shortly"; "Lawdy Miss Clawdy"; "Fall In Love With You".

Side 2:

"Be Bob A Lula"; "Down The Line"; "Whole Lotta Shakin'"; "Stuck On You"; "Don't Be Mad At Me"; "20 Flight Rock".

This tape is easier on the ear—it only lasts 30 minutes. Mike Dalton is seventeen years old, and I suppose he is talented as "rock 'n' roll" singers go. Again, it is possible

that the youngsters will go for this. I'm not against a company releasing this material on tape, but I find it hard to believe that it has the widest possible appeal.

Summing-up on the new "Bi Tape" releases, I would say a much broader field needs to be covered, taking in a good traditional jazz band, a large orchestra or organ playing lighter music. The reproduction quality of the tapes must also be watched. Poor recordings will soon turn away would-be customers.

It is a step in the right direction to release popular material—so our best wishes to the new tapes.

"Love, Love, Love You". Lis Welch and Mike McKenzie.

BI TAPES. CLA 105. 3½ i.p.s.—monaural. 52/6d.

1 hour playing time—5" reel.

Side 1:

"You'd Be So Nice To Come Home To"; "You Too, You Too"; "They Can't Take That Away From Me"; "Easy To Love"; "I Got It Bad"; "But Not For Me"; "Lover"; "Nearness Of You"; "Fine And Dandy"; "Do I Love You".

Side 2:

"S Wonderful"; "Every Time We Say Goodbye"; "Come Rain or Shine"; "The Most Beautiful Girl In The World"; "Such a Night"; "I Don't Know Why"; "Somebody Loves Me"; "All Of You"; "Where Can I Go Without You"; "As Time Goes By"; "I'm a Little Blackbird"; "Swanee".

Supporting Lis and Mike on this tape are Brian Brocklehurst—bass, and Tommy Jones—drums. Lis and Mike are fine artistes, and this tape represents a good cross-section of their repertoire. This tape should go down very well with those who prefer to hear these evergreen songs presented in a modern manner.



Mike
McKenzie

"Miguel Novarro and his Dance Orchestra"

MUSIC ON TAPE 6533. 3½ i.p.s.—monaural.

"Remember"; "Brazil"; "A la Martinique"; "Night and Day"; "Aussi Loin que Tu Sois"; "Cuban Cha Cha Cha"; "Dansons Tous le Baion"; "Serenade a Bahia";

"Miami Lovers"; "Old Time Memories"; "Chaque Soir, Cherie". This tape features music very suitable for dancing or listening. In particular I have enjoyed the hotted-up version of "Brazil". The band is very good and the tape should suit the taste of the majority of people who like a nice big band sound in dance tempo.

"Accordion"

MUSIC ON TAPE 8367. 7½ i.p.s.—monaural.

"Yanetta"—Joseph Bazelli and his Quintette.

"Pourquoi faut-il"—

"Liria"—Emile Carrara.

"Sur la Mer une Voile"—

"Cristina Mia"—Aimable and his Accordion Band.

"Broderie Java"—

"Douceur de Vivre"—Emile Carrara.

"Paquerette de Paris"—

"Les Douaniers au Clair de Lune"—

Aimable and his Accordion Band.

"Rosario"—

"Mam'zelle Ouistiti"—Emile Carrara.

This tape is pleasant enough if you enjoy the accordion. The music is mainly in dance tempo. The standard of playing is very high—and very Continental in musical atmosphere. Good dance or background music but of tremendous interest to the accordion enthusiast.

"The Old Lady Drives to Dolgoh."

SOUND STORIES. LP 600. 37/6d., by post 39/-.

This 12" Long Playing record features the Bill Hartley Production of "The Old Lady Drives to Dolgoh". "The Old Lady" in this piece is of course the famous "Talyllyn"—Locomotive No. 1 of the equally famous Talyllyn Railway, a narrow-gauge line which runs up a Welsh valley from Towyn-on-Sea to the fringe of the Welsh Mountains, a distance of seven miles. This record tells the story of this world-famous passenger railway with its veteran steam locomotives. There are many points of interest in the story, a ride on "Talyllyn", interviews with the staff, interviews with passengers and the sounds of the railway plus various natural sounds from the surrounding countryside and incidental music played by Ellyn Jones on a Harp. The LP cover design is first class; hitting you straight in the eye on the front is a painting in colour of "Talyllyn", an 0-4-0 Saddle tank engine built for the opening of the railway nearly 100 years ago. The back of the sleeve contains very well written notes about the railway, plus more pictures of the locomotives.

The reproduction from this record is quite good considering it was taken down almost entirely with portable recording equipment.

Record available by post at 39/- from Bill Hartley Productions Ltd., 1266, Warwick Road, Knowle, Solihull, Warwickshire.

Bib RECORDING TAPE SPLICER
FOR EASIER AND ECONOMICAL TAPE EDITING



Everyone who uses a tape recorder will need this little tool. It is indispensable. P. Wilson, "The Gramophone". Send a stamped, addressed envelope for a helpful leaflet on tape editing.

The easy-to-lift clamps on the new Mark II Bib Recording Tape Splicer are both hinged on the same side of the splicer, making the jointed tapes easy to remove. Precise, rapid tape jointing is ensured, and because you can use all the odd lengths of tape, you soon save the cost of the splicer.

18/6d each (subject)

MULTICORE SOLDERS LTD.,
MULTICORE WORKS, HEMEL HEMPSTEAD, HERTS. TEL: BOXMOOR 3636

YOU WILL NEVER KNOW HOW GOOD YOUR RECORDER CAN BE UNTIL YOU CHANGE OVER TO A



BRITISH-MADE MICROPHONE

There's a model for every requirement

"I would place it as one of the best microphones I have used during many years of work in this field," writes J.G. in "The Gramophone" August 1960, reviewing the Lustraphone VR/65 Dual Ribbon Stereo Microphone.

You can buy a LUSTRAPHONE DYNAMIC MICROPHONE from as little as 67/6. Literature on request.

LUSTRAPHONE LTD. ST. GEORGE'S WORKS,
REGENTS PARK RD., LONDON, N.W.1
Phone: PRImrose 8844



ALL YOUR RECORDINGS CAN BE FOUND QUICKLY AND EASILY BY USING —

METRO-TABS

3/11 per set

A new and scientific device designed to clean the record and erase heads of your tape recorder, and to reduce faults caused by oxide deposits.

Price 12/6



Write for illustrated leaflets to:

METRO-SOUND MFG., CO., LTD.

19a BUCKINGHAM ROAD
LONDON N.1
Telephone: CLIssold 8506/7



WHAT PRICE HI-FI?

Probably, you have had the experience of buying something comparatively cheaply, to find later that it really isn't good enough. You discover that an article of lasting quality would not have cost so very much more. And you realise that the difference is also true economy. Choosing a tape recorder should be a decision of that kind.

A worthwhile recorder has performance and reliability matching professional standards. This is a Brenell. Some special features are described below, and we shall be pleased to send detailed specifications. But those alone are cold facts . . . see and hear the Brenell tape recorders. Compare them thoroughly with as many makes as you can . . . regardless of price!

A Brenell costs more than many another, but is still moderately priced for the kind of value and satisfaction it gives. It is like the motor cars or cameras that thinking people buy; not the most expensive, but far, far better than the average.

Every Brenell tape recorder is equipped with an advanced, new type of main motor.

An HYSTERESIS SYNCHRONOUS MOTOR. This brings 'wow and flutter' down to below .1% at 7½ips. Despite the significant increase in production cost this motor entails, the prices of all models remain unaltered

3 STAR • 58 GNS

PRINTED CIRCUIT AMPLIFIER Output: 4 watts. Can be used independently of the recorder, with microphone, radio or pick-up

RECORDING LEVEL INDICATOR Cathode ray indicator clearly shows the peak level at all times, so that unvarying recording quality can be maintained

MONITORING FACILITIES A headphones socket is provided for the monitoring of any recording operation. On playback, this output is suitable for feeding to an external amplifier

MK. 5 • 64 GNS

FOUR RECORDING SPEEDS 1½, 3½, 7½, 15ips

PROVISION FOR EXTRA SOUNDHEADS Additional heads can be fitted for dual channel, stereo or tape monitoring

PERMITS THE USE OF 8½" DIAMETER REELS

COLOURED SIGNAL LIGHTS Automatically indicate the operation taking place



3 STAR



MK. 5

MK. 5 DECK • 28 GNS / 3 STAR R.P. STEREO • 89 GNS / MK. 5 R.P. STEREO • £99.12.0

*Details and the address of your nearest stockist, from:
Sole manufacturers:*

BRENELL ENGINEERING CO. LTD • 1a DOUGHTY STREET • LONDON WC1 • CHANCERY 5809 and HOLBORN 7358

Brenell



What we saw at the Radio Show, 1960

by Stephen Ross

ON WEDNESDAY, 24th August the doors of Earls Court opened to a crowd eager to see the achievements of 1960 by every branch of the Radio Industry on view at the **TWENTY-SEVENTH NATIONAL RADIO AND TELEVISION EXHIBITION**. Evidence of the fact that interest continues to increase, undimmed by the increasing complexity of modern electronics, is the news that the record for the total of admissions on the first day was beaten this year by several thousand; a sure indication of a healthy and vigorous industry.

In preference to the simple but less informative method of describing such a Show on a set-by-set basis, we have decided to follow the policy that has proved so popular on previous occasions, and summarise the trends evident in this year's exhibition, illustrating each with specific examples.

LARGER AND SLIMMER

The comparatively recent development of the shallow depth tube has resulted in the expected trend of 'slim line' television sets materialising. Manufacturers have not been slow to appreciate the immense advantages of this development and large screen sets that present little or no problem to incorporation in household furnishing schemes were a feature of many stands, and it was quite apparent that the era of the large, obtrusive television set, monopolising one corner of the living room is now over. The manufacturers are to be complimented on devising an excellent varied range of compact instruments that can be hung on the wall, built into a bookcase, all forming an integral part of a pleasing furnishing scheme instead of being an unwelcome intruder.

From such an outstanding selection it is only possible to select examples of innovations and trends at random. Typical of the excellent taste and ingenuity of the new slimmer models is the 'Ultra' Bermuda Range. Compactness has been allied with clean lines and a very high standard of cabinet work. The designers have tended to reduce polished surfaces, with their inherent risk of unfortunate mishaps, in favour of tasteful combinations of metal and fabric covered surfaces in attractive colour schemes designed to blend with most furnishing schemes.

Philco exhibited their latest design which was an advanced example of the trends towards a circuit system designed to simplify servicing and maintenance to an unprecedented degree. Each sub-section of this neat, compact and extremely slim set, is colour coded according to function: blue—sound; yellow—vision; red—power, etc., most sections being individually detachable from the body of the set by unplugging, a particularly valuable development from a service-man's viewpoint. A further praiseworthy feature introduced by Philco, and typical of similar ideas by other manufacturers is a neat, detachable carrying handle which will function alternatively as an attractive stand or efficient wall hanging bracket.

H.M.V. and Ultra both introduced an attractive system in which the stand doubles as a Magazine or Book-rack, a space conserving feature that can be overlooked at first glance.

Automatic contrast compensation was arousing considerable interest on several stands. Both intriguing and practical, this feature proved its value in displays in which changes in room lighting resulted in instantaneous and effective picture compensation. Sobell, R.G.D. and McMichael featured this device.

The most ingenious form of remote control was the H.M.V. supersonic device which emits a note of 45,000 c.p.s. picked up by a microphone in the set and actuates the channel change and on/off switches.

TRANSISTOR RADIO

The steady increase in efficiency and capability of the transistor was in evidence in every field with an unprecedented number of sets of all types—Televisions, Radios, Record Players and Tape Recorders.

In the Record Player field Philips and the British Radio Corporation were amongst those manufacturers exhibiting attractive portable Stereo sets in which the lid detaches and divides into two separate loudspeakers; an attractive and practical solution to the requirements for a portable Stereo Record Player. E.A.R. provided a sensible alternative with a set incorporating one speaker and with a detachable speaker with a matching fascia for the second channel.

Collaro and Garrard featured their

comprehensive range of turntables and tape decks, considerable interest being shown by visitors in Garrard's new transcription autochanger incorporating their excellent T.P.A. 12 arm. The exhibits of both these manufacturers were conclusive proof that they have overcome the more exacting technical demands of Stereo.

On the way to the Audio Hall, visitors passed the excellent stand of the various branches of the Armed Forces and Public Services in which a most convincing overall demonstration was provided of the importance and practical applications of the Radio Industries' products to the many facets of everyday life apart from the considerations of entertainment.

A feature of the Show, as in previous years was the continuous Television programmes being relayed by both the B.B.C. and I.T.V. from their large and well planned stands where visitors were able to see a continual stream of the Stars of Show Business.

BRITISH RECORDING CLUB

Between the B.B.C. stand and the Audio Hall was the Stand of the British Recording Club where visitors could benefit from the wide variety of activities. A feature of the Stand was an exhibit of the accessories for Tape Recording, for which construction details had been printed in past numbers of the 'Amateur Tape Recording' magazine. A very considerable amount of interest was being shown in these useful and inexpensive designs for such devices as an echo producer, Three Channel Mixer, and a Transistor Microphone Pre-amplifier, and a brisk trade



Amateur Tape Recording

was resulting in the relevant Back Numbers.

An excellent tape recording by F. C. Judd featured the subject of Sound Technique and the application of each unit was explained and demonstrated, including a most impressive multiple recording of five guitars.

Another tape featured recordings from all parts of the World by Club Members describing particular aspects of tape recording in their part of the World together with mutual interchange of ideas and the way in which such activities fostered international friendships.

A particular commendable feature of the Club's activities demonstrated was the Voluntary Services by which the Blind and those in Hospital are provided with a continual stream of programmes and information in the form of tape recordings. Visitors learned that while many enthusiasts were devoting considerable efforts to the provision of these programmes, a continual source of difficulty was a shortage of recording tape. Contributions to their Tape Bank are still urgently required and the exhibit was a most impressive demonstration of the worthiness of the cause and the good purpose to which any gift, however small, would be applied. Visitors were able to meet the Club Secretary and many of the contributors to the Club Publications and were provided with an endless and freely given stream of information and assistance.

MORE TAPE RECORDERS

In the Audio Hall and on the stands of manufacturers of allied products who had to be accommodated in the Main Exhibition the accent was on Tape Recording and Hi-Fi Equipment.

A very definite trend in the direction of four track tape recorders was evident, and the initial problem of the reduced signal to noise ratio of this type of equipment appears to have been tackled with considerable if not complete success. *Elizabethan* demonstrated their attractive new range of four track Recorders which provided a most satisfactory standard of reproduction. Based on the well-known B.S.R. and Collaro Studio Tape Decks, their F.T.1 and F.T.3 models included a well designed new panel moulding to encompass the additional controls required. A clever idea with these machines is the provision for changing to Stereo by the addition of a compact unit which divides

into a speaker cabinet and an amplifier for the second channel, thus providing Stereo facilities in two easily transportable units.

Brenell exhibited their well-known Monaural and Stereo Recorders the 'three star' and 'MK5' systems. Visitors to this stand were visibly impressed as were those to the *Truvox* stand where the new R6 and R7 models were arousing favourable comments. The R7 in particular with its outstanding cabinet design, tracking in both directions, sliding volume control and ten watts push-pull output was providing a most convincing demonstration of the capabilities of the modern recorder.

A feature of many tape recorders on show was the Collaro Studio Deck with the new Safety Record Switch to prevent accidental erasure. Both the *Reps* and *Gainsborough* stands featured a wide range of recorders based on this deck. A particularly interesting feature on the *Reps*' stand was their modern radiogram style console tape recorder which included provision of space for a VHF/FM tuner to be used in conjunction with the tape recorder circuitry and speaker system. The economy in cost and equipment is readily apparent and the idea may well be a trend of the future.

Amplion were exhibiting their first recorder to feature a single spindle, the tape reels being horizontally mounted one above the other. This ingenious system provided one of the most compact designs seen at the Show since the recorder can handle 7in. reels and yet measures little more than 8in. in width.

The main feature of the *Walter* stand was their outstanding new Transistor portable recorder. This model, built on the scale of a standard domestic recorder functions equally well on either battery or mains power supply and the



(above) The young idea is the B.R.C.! Jan Phillips is interviewed for a change.

Tape Recorders (left to right/top to bottom) :

R.G.D. model Mk 104 at 27 gns.

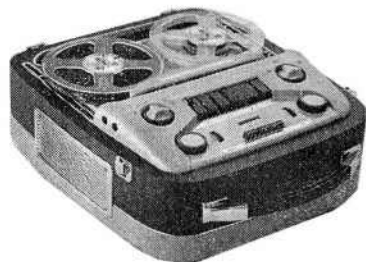
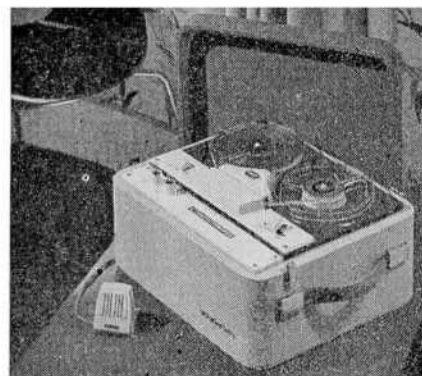
Elizabethan model F.T3 at 55 gns.

Heathkit record/play-back amplifier TA-IS.

Argosy model 28TR at 28 gns.

Ferranti model RT 1044.

Regentone model RT20 at 28 gns.





THE FI-CORD 101

A most versatile and compact dictating system is the new Fi-Cord 101 which is depicted above in personal and business use. It is a Swiss precision made battery operated tape recorder, fully transistorised and with a printed circuit. It measures 6½in. x 3½in. x 1½in., weighs only 27 ounces, and can be carried in pocket, brief case or shoulder bag. On the desk it takes up less space than a telephone.

It has a built-in microphone, quiet built-in play-back, and an accurate counter numbered 00-99. There is a battery warning light which fades when the batteries near extinction.

Volume control is automatic. A single button gives fast forward and reverse re-wind and recording time is 30 minutes—15 minutes on each side of a reversible spool. The tapes can be played back on any standard 1½ i.p.s. machine.

SHOP WINDOW

K.B. RECORDER

This is a portable tape recorder embodying the familiar B.S.R. deck. It has a 4 stage amplifier, 'Magic eye' record level indicator, and is priced at 27 gns. complete with tape, spool and microphone.

Further details can be obtained from Kolster-Brandes Ltd., Footscray, Sidcup, Kent.



DYNATRON 'CORDOVA'

Dynatron present their first Tape Recorder—the Cordova. Its features include pause control, superimposing facilities, three speeds 1½, 3½, 7½ i.p.s., rev. counter, light piano key type controls, fast re-wind and a safety switch to prevent accidental erasure. Spools of up to 7in. in diameter can be used.

The Cordova can also be used to amplify inputs from a radio or a crystal pick-up. A power output of 2½ watts is available through a 10in. x 4½in. elliptical speaker. An additional facility is the incorporation of an extension speaker socket. A highly sensitive microphone with a wide frequency response is included.

DIMENSIONS: 9-3/16in. high x 16½in. wide x 18in. deep. Model TRP1, 39 gns.



What we saw at the Radio Show 1960

(Continued from page 45)

performance compares favourably with most medium sized domestic recorders of the standard mains type. Attractively styled, this instrument is light enough to be carried around and is capable of a high standard of recording and play-back completely independent of mains supplies, playing for 20 hours on one set of batteries.

Acos and Lustraphone exhibited a range of microphones to suit all pockets and interests, monaural and stereophonic, while H.M.V., Dynatron, B.T.H. and Expert were amongst the manufacturers of High-Fidelity equipment exhibiting a wide range of their standard products.

To summarise, this year's Radio Show was notable for a marked im-

provement in the standard of appearance while technically the policy has been one of unspectacular but valuable consolidation and improvement of recent developments. In Television the 21in. and 23in. screens are rapidly proving the most popular sizes, while the improvement in cabinet design and compactness is a keynote of the whole Show. An increased degree of automatic and remote control is evident together with a move towards simplified servicing and maintenance. Tape is now completely past the stage of being a new and poor relation and has been accepted as an integral part of Radio equipment in the home, and the speed and smoothness with which this has been accomplished is a credit to the pioneers in this field.

S. R.

POSTSCRIPT

The Radio Show is over for another year; a huge success if attendance figures are anything to go by. But what happened to the Audio Section? The number of stands in the Audio Hall this year was but a fraction of the potential and many visitors were bitterly disappointed having journeyed long distances to see this particular side of the Radio Show. The B.R.C. Stand was flooded with enquiries for particular firms such as Tannoy, Leak, Ferrograph, etc., and many people were heard to say, "We wouldn't have come had we known that they weren't here".

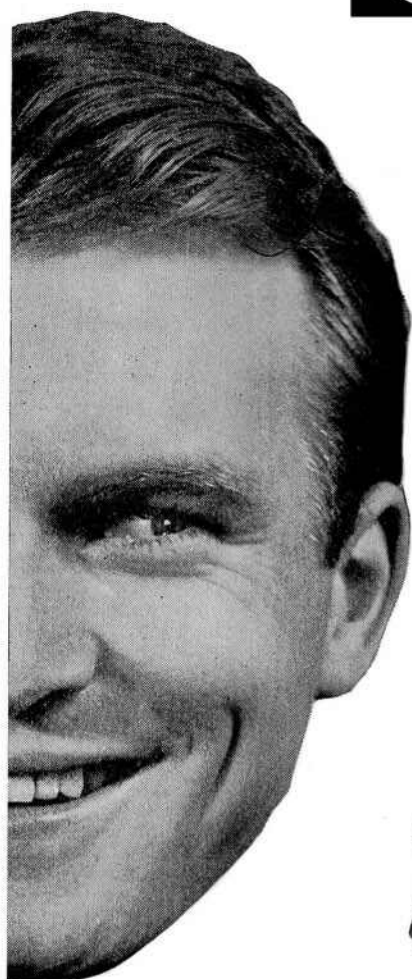
In our opinion this is the exhibition which manufacturers should support and the Radio Industries Council should make every effort to encourage the missing Companies to participate even if it means allowing smaller manufacturers to combine forces.

Get it TAPED

— to perfection

SIZES	STANDARD			LONG PLAY			SIZES	DOUBLE PLAY		
	FEET	REEL NUMBER (in I.P.S.)	PRICE £ s. d.	FEET	REEL NUMBER (in I.P.S.)	PRICE £ s. d.		FEET	REEL NUMBER (in I.P.S.)	PRICE £ s. d.
3"	150	16 mm	5 6	225	24 mm	8 6	3"	300	32 mm	10 6
4"	300	32 ..	10 6	450	50 ..	14 6	5"	1200	2mm 8 ..	2 5 0
5"	600	1mm 4 mm	1 0 0	850	1mm 31 mm	1 8 0	5½"	1700	3.. 0 ..	2 17 6
5½"	850	1..31 ..	1 7 6	1200	2.. 8 ..	1 15 0	7"	2400	4..16 ..	4 0 0
7"	1200	2.. 8 ..	1 15 0	1800	3..12 ..	2 10 0	SUPERGRADE			
8½"	1750	3.. 6 ..	2 10 0	2400	4..16 ..	3 10 0	7"	1200	2mm 8 mm	2 18 6

— naturally

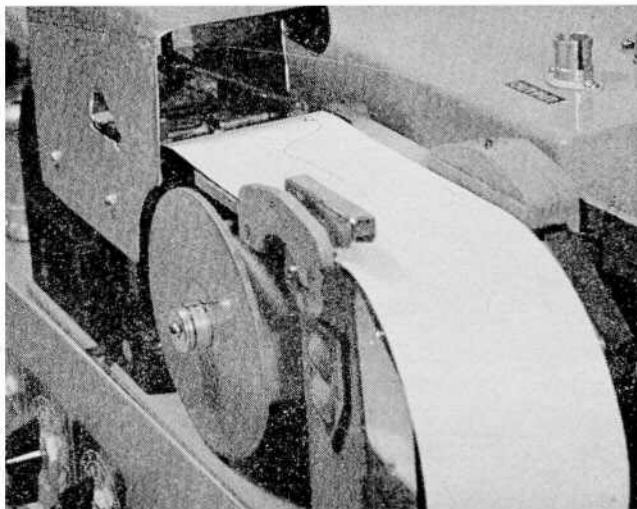


A MEMBER OF THE
BCC
GROUP OF COMPANIES

on

Mss Mastertape

155 RECORDING COMPANY LIMITED, COLNBROOK, BUCKS. TEL. COLNBROOK 2431



REVIEWING EQUIPMENT

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

A.T.R. Technical Editor

In the second of a series of three articles A.T.R.'s Technical Editor explains the workings of our Test Laboratories and the procedure for reviewing equipment submitted by manufacturers. The first of the articles appeared in the August 1960 number.

THE FIRST of this series of articles discussed the various tests that have to be made when a tape recorder or accessory is reviewed. The meaning of frequency response was outlined and now we continue by describing briefly how frequency response and other checks are carried out in the AMATEUR TAPE RECORDING Magazine laboratory.

Two methods are used for frequency response testing, depending on the type and price range of the recorder or amplifier (for the moment recorders only will be considered to avoid confusion). A very cheap tape recorder does not warrant precise frequency tests which take up a considerable amount of time and a lot of expensive equipment. Most cheap recorders, especially those with low running speeds, have a fairly limited frequency response and a test with a pre-recorded frequency test tape and output meter is sufficient to show whether performance in this respect is good enough for passable reproduction.

Occasionally one finds a fairly cheap recorder with a good frequency response, but with reproduction otherwise spoiled by excessive hum or some violent form of distortion. On the other hand recorders with a limited frequency response but having an exceptionally low hum, noise and distortion, wow and flutter, etc., would sound quite superior to one with a wide response otherwise spoiled by excessive hum and noise, etc. An exceptionally wide frequency response is not essential to good tape recorder performance and is all too often given an exaggerated value. The fact that one may not hear anything of sounds with frequencies above 10,000 c.p.s. does not imply that reproduction will be poor. High fidelity performance is expensive and it is quite unreasonable to expect it from a mass produced recorder costing only thirty or forty pounds.

High grade recorders of either domestic or semi-professional class are tested on a highly sensitive pen recording output meter in conjunction with either a frequency test tape or a direct recording of a wide range of tones made via the machine under test. This latter method enables an overall record

to playback frequency response to be estimated, for whilst a pre-recorded test tape such as the E.M.I. T.B.T.I. will show deficiencies in the tape head or playback amplifier, it tells nothing about the actual recording performance of a machine. The sensitive pen recording meter, which may be seen in the photograph Figure 1 will plot a deviation of less than half a decibel in output level and has a frequency response of its own that is perfectly even from 10 c.p.s. to over 50,000 c.p.s., including its own amplifier. At the high level signal input the response of this instrument is perfectly level from 10 to 100,000 c.p.s. It is therefore quite capable of testing professional recording equipment with a high degree of accuracy.

Wow and Flutter

In conjunction with special auxiliary equipment, the pen recording meter is also used for wow and flutter testing. Another instrument used very frequently is the Gaumont Kalee Flutter Meter, type 1740, which provides direct meter readings of wow and flutter percentage in r.m.s. values.

Many readers write asking what the wow and flutter percentage figures mean and what should be a good or bad percentage. Let me first explain that the wow and flutter percentage will depend entirely on the tape transport mechanism. The more expensive the deck, the less wow and flutter one expects to get. Wow is an effect due to speed variation such as might be caused by an eccentric capstan or a poor drive motor. Flutter is an amplitude variation (variation in the strength of the recorded signal) more noticeable at the higher audio frequencies and is often due to poor pressure-pad mechanism or poorly aligned tape guides. Wow and flutter are usually integrated to produce a common value, rather as hum and noise levels are measured, but the figures given in specifications are sometimes misleading;

(above) A.T.R.'s pen recorder used for plotting frequency response curves.

(right) The Gaumont-Kalee type 1740 Flutter Meter used in A.T.R. equipment tests.

for example, one manufacturer may quote a 'peak' variation of 0.2%, whilst another may quote 0.2% r.m.s. Which is the better figure? The first one, because the r.m.s. value of 0.2% peak is 0.2/0.707 or approximately 0.14%. The peak value of 0.2% r.m.s. is approximately 0.28% or 0.2×1.414 . An r.m.s. value of 0.15% at $7\frac{1}{2}$ i.p.s. should be considered good, whilst a value of 0.25% r.m.s. is fairly acceptable, but note that the percentage will generally increase for slower operating speeds and one cannot normally expect wow free performance at $1\frac{1}{2}$ i.p.s. for instance, except from a fairly expensive recorder.

Wow and flutter cannot be measured accurately without costly equipment and the only way the prospective buyer or owner of a tape recorder can check this is by listening very intently to a 1,000 c.p.s. tone from a pre-recorded test tape, or by a recording of a steady tone around this frequency. Rhythmic speed fluctuation will be obvious by a variation in pitch of the tone which, audibly, is quite marked if the wow percentage is above about 0.25% peak. Flutter is more noticeable at the higher frequencies, i.e., above 5,000 c.p.s. and is



apparent by a rapid fluctuation of amplitude or loudness.

Hum and Noise

These two factors are normally compared with some pre-determined power output level and figures quoted vary according to the level adopted as a reference. Generally an integrated hum and noise level of better than -40dB is acceptable for domestic class equipment. Less than this may prove annoying although cheap recorders are rarely better than -30 to -35dB. A fairly expensive instrument should be better than -45 or even -50dB.

It is fairly true to say that valve noise may not be so prominent as hum but if the hum level is in excess of the noise it may be noticeable above quiet recordings even with low volume settings. A recorder that shows this characteristic should be viewed with suspicion unless it is an exceptionally cheap machine. The only test that can be made without instruments is, again, a listening one. Set the tape recorder running with an unused tape and turn the volume up to a fairly high level; noise and more particularly hum should be only just perceptible in a quiet room. Alternatively, run through a tape, preferably a pre-recorded one (commercial) and set the volume to comfortable listening level. Neither hum nor noise should be audible through quiet passages of music, in a quiet room.

Distortion

Distortion figures are rarely quoted for domestic class recorders or accessories. Generally as much as 10% harmonic distortion can be tolerated, especially if the listener has not previously heard reproduction with a lower percentage of distortion. For average good quality the distortion percentage should not exceed two or three per cent. A figure of 0.1% is considered really Hi-Fi and usually only obtainable from professional recorders and fairly expensive amplifiers.

Mechanical

We have so far covered the essentials of good electrical performance although wow and flutter are associated with mechanical defects in the tape deck.

An adverse mechanical performance may prove just as annoying as a poor electrical one and may be due to any one or more of the mechanical components associated with a tape deck. For example, uneven tape spooling may often be traced to poorly designed tape spool hubs, erratic motors or even the tape guides. Bad flutter may be the result of badly placed tape guides or slack pressure pads. Wow may be the result of a sticky motor, an eccentric capstan or faulty adjustment of the mechanism that moves the idler wheel up to the capstan. Any slackness between the idler and capstan will result

in uneven movement of the tape past the tape head.

Examine the recorder you intend buying very carefully, don't be put off by 'sales talk', take your time and ask pertinent questions. The salesman will not love you or me either for this, but do be firm, insist on demonstrations, then visualise the recorder in everyday use. Does it look strong enough, remember plastic cases are brittle. Is it too heavy to carry round to your friend's house? It's surprising how heavy a tape recorder becomes after carrying it a hundred yards. Are the push buttons easy to operate? Does the machine cater for standard speeds (1½, 3½ and 7½—15 i.p.s.). Is the recording speed 'linear', that is, does it remain constant for the whole run of the tape. There are recorders that operate at non-standard speeds such as 2½ i.p.s. or have a nominal speed of 3½ i.p.s. that increases or decreases as the tape is gradually used up, according to the drive system. Such recorders are quite useless for taping, unless your tapespondent possesses the same model and make of machine. Tapes made on non-standard speed and non-linear speed machines cannot be played on standard speed machines, at least not intelligibly.

In Part 3 I will classify the domestic machines according to price and facility and discuss the various accessories that can add much to the interest of tape recording.

FRANCIS OF STREATHAM

● The Centre for Personal Attention and respect for your Pocket

NO EXTRA FOR CREDIT

Minimum deposit and no interest or charges on HP up to 18 months.

FREE service whilst under Guarantee

HIRE SERVICE TAPE RECORDERS AVAILABLE

on hire from 45/- per week.

MICROPHONES AND MIXERS

	£	s.	d.
Lustraphone VR/65 NS Stereo Ribbon	15	15	0
Lustraphone LD/66	4	2	6
Lustraphone "Lustrette" M/C	3	7	6
Lustraphone VR/64 Ribbon	7	17	6
Lustraphone LFV/59 Dynamic	8	18	6
Simon "Cadenza" Ribbon	10	10	0
Simon Cadenza Crystal	3	13	6
Reslo Ribbon	8	15	0
AKG Stereo Dynamic D.88	19	19	0
Grundig Mixer	16	16	0

Also by Ronette, Acos, etc. We will gladly advise on the type best suited to your requirements.

HI-FI AND ASSOCIATED EQUIPMENT (at 181 Streatham High Rd.)

	£	s.	d.		£	s.	d.
Decca ffs P.U.	21	0	0	Collaro 4T200	18	13	0
Rogers Junior FM	24	13	5	Lenco GL/58	19	17	6
Tuner	27	6	0	Garrard 4HF	18	17	8
Armstrong ST.3	25	15	2	Garrard 301	22	7	3
Dulci AM/FM	40	19	0	Garrard 301/Strob.	23	18	4
Jason J-2.10/MK3	22	15	8	Leak Stereo 20	30	9	0
Jason FM	25	7	3	Loudspeakers by—			
Quad J11 Control Unit	25	0	0	Expert, W.B., Pye, Wharfedale, Goodman's, etc.			

PRE-RECORDED TAPES ● TAPE TO DISC & TAPE COPY SERVICE

- ★ COMPLETE TAPE RECORDER SPECIALISTS
- ★ LARGEST SELECTION OF LATEST MODELS
- ★ SEPARATE HI-FI DEPARTMENT

*Brenell Mk. V	64 gns.	*Reflectograph 'A'	1-tr 95 gns.
Brenell 3 Star	58 gns.	*Reflectograph 'B'	1-tr 105 gns.
Brenell 3 Star Stereo	89 gns.	*Saba	79 gns.
Cosor 4-TR	37 gns.	*Simon SP4	95 gns.
Elizabethan Avon	27 gns.	Simon Minstrelle	39 gns.
Elizabethan "Princess"	39 gns.	Spectone 171	39 gns.
Elizabethan Major	65 gns.	Spectone 161	49 gns.
*Ferrograph 4AN	81 gns.	*Telefunken 85KL	79 gns.
*Ferrograph 4A/H	86 gns.	*Telefunken 76	62 gns.
*Ferrograph 4AN/S	88 gns.	*Telefunken 75/15	54 gns.
Ferrograph 808	105 gns.	Uher Universal	79 gns.
Ferrograph Stereo-Ad.	30 gns.	*Uher 4-tr Stereo	102 gns.
Fidelity Argyll	29 gns.	*Vortexion WVA	£93 13 0
Gainsborough	39 gns.	*Vortexion W.V.B.	£110 3 0
Grundig TK20	52 gns.	Wyndor Victor	45 gns.
Grundig TK24	62 gns.		
*Grundig TK25	62 gns.		
*Grundig TK30	72 gns.		
*Grundig TK35	82 gns.		
*Grundig TK55 Stereo	92 gns.		
*Grundig TK60 Stereo	128 gns.		
*Harting HM8 Stereo	86 gns.		
H.M.V.	£50		
Magnafon	49 gns.		
Philips 4 Tr. 3541	34 gns.		
Philips 4 Tr. 3542	59 gns.		
Philips 4 Tr. stereo 3536	92 gns.		

BATTERY PORTABLES

*Butoba	69 gns.
Grundig "Cub"	26 gns.
Clarion	25 gns.
Clarion Twin Set	8 gns.
Minivox	37 gns.
Minivox 2 speed	42 gns.
Fi-Cord	59 gns.
Stuzzi "Magnetite"	69 gns.
Steelman	55 gns.
Trav-Ler	29 gns.

Tapes of every size and type by leading makers ready for prompt dispatch. Also Pre-recorded Tapes.
Please mention "Amateur Tape Recording" when writing.

169-171 STREATHAM HIGH RD., LONDON, S.W.16
Between St Leonard's Church and Streatham Station
Hi-Fi Dept., 181 Streatham High Road, S.W.16

HOME VIEW

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

EXPORT MANNEQUIN TAPE RECORDER

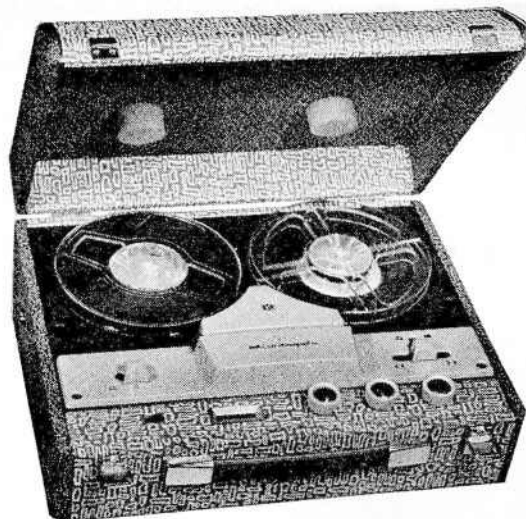
THIS LITTLE RECORDER has a teenage appeal, for it is simple in operation, completely portable, inasmuch that it weighs very little, and compact. The microphone and four reels of tape can be carried within the recorder. It is brightly and attractively finished in washable plastic and has a smart appearance with its two tone colour scheme and gilt fittings.

A single tape speed of $3\frac{1}{2}$ i.p.s. and a $5\frac{1}{2}$ " spool of tape allows a total playing time of up to three hours. Inputs for crystal microphone and pick-up or radio are provided and an extension loudspeaker can be connected if desired. Despite the low price of this machine, a two channel mixing facility is provided, so that a microphone and music source may be recorded simultaneously. A superimposing button is also provided and a signal may be monitored whilst being recorded. The remaining facilities are a tone control and a magic eye recording level indicator.

PERFORMANCE

Our laboratory tests showed the performance of this recorder to be quite reasonable. Although the makers quote a frequency response of 90 to 10,000 c.p.s. (no reference level is given), the recorder sent in for review had a substantially level frequency response from 100 to 9,000 c.p.s.—referred to 1,000 c.p.s. = 0 dB. The response at 10,000 c.p.s. was approximately -10 dB.

Hum and noise level was better than -35 dB. and wow and flutter were low enough to be undetectable by the average ear. The deck controls functioned perfectly and are simple enough for anyone to operate.

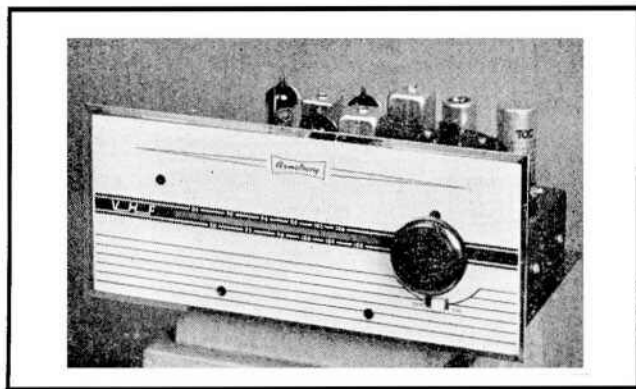


TECHNICAL DETAILS

Size	...	...	...	13 $\frac{1}{2}$ " x 11" x 6 $\frac{1}{4}$ "
Output Power	...	...	...	2.5 watts
Recording Sense	...	...	...	$3\frac{1}{2}$ i.p.s. Standard
Supply	...	...	...	220-250 volts A.C.
Bias and Erase	...	...	...	50 Kc./s. approximately
Valves	...	...	...	ECC83 ECL82 EZ81 DM71
Loudspeaker	...	...	...	The built-in elliptic speaker is 8" long

This recorder is not one which the expert or the serious recordist would choose. It is intended as a low priced portable and its performance as such obviously cannot compete with a high priced machine. If you are looking for a solidly built recorder with a reasonable performance, perhaps for a teenager's birthday present, or as a machine to take along to parties, or for tapesponding, then the Mannequin will fulfil these requirements.

Taking its low price of 27 guineas into consideration, the Mannequin is a sturdy little recorder that should give good service and a fair performance. It is supplied complete with a crystal microphone and a spool of tape and is distributed by: Recording Devices Limited, 44, Southern Row, Kensington, London, W.10.



The Armstrong Model T4 VHF-FM Tuner

WE ARE CONSTANTLY receiving enquiries about FM tuners that are self-powered and will deliver a high fidelity signal directly to a tape recorder or amplifier. We have decided therefore to include this review of the latest edition to the Armstrong family of amplifiers and tuners, namely the "T4". This FM tuner is the ideal signal source from which to record radio programmes, for if the transmission is being taken direct from a local studio the quality of reproduction at the output of the tuner will be very nearly equal to a direct line from a studio microphone.

The Armstrong T4 is self-powered and is designed to operate with any good tape recorder or amplifier. A variable output control enables any signal level between 0 and 500 millivolts to be delivered to the input socket of a Hi Fi amplifier or the radio socket of a tape recorder. The microphone socket of a recorder could also be used by reducing the output from the tuner to a suitable level. A cathode follower output permits an accurate match with virtually any recorder or amplifier input without adjustment.

Although it is not yet certain which method the B.B.C. will use when regular *stereo* broadcasts begin, a multiplex system has been assumed. When the time comes, this will only require connection to the necessary unit, which Armstrong will be able to supply, for dividing the channels for stereo broadcasts.

FM, which means "Frequency Modulation" and VHF "Very High Frequency" are the names given to the B.B.C.'s high quality transmissions of the Home, Light and Third programmes. The advantage of FM over conventional radio with AM, or "Amplitude Modulation", is now being appreciated more than ever since high quality recording and amplifying equipment demands high fidelity signal sources. The principal advantages of FM can be summed up as follows:—Freedom from electrical interference; freedom from whistles and interference from other stations; an infinitely better quality of reproduction and an inherently better signal to noise ratio.

SPECIFICATION OF THE T4 TUNER

The following is an abridged specification of the T4 tuner which gives all the vital information concerning performance. The built-in power supply is adjustable for operation from

200 to 250 volt A.C. mains of 40-50 c.p.s. The valves used in the T4 tuner are two ECC85 double diodes, one EF89 pentode, one EF80 pentode and one EB91 double diode.

Frequency Coverage	87-108 Mc./s.
Sensitivity	3 micro-volts for 100 mV. output at 22.5 Kc./s. deviation better than 3 micro-volts for 20 dB. quieting.
Intermediate Frequency	10.7 Mc./s.
I.F. Bandwidth	220 Kc./s. at 6 dB. down.
I.F. Rejection	56 dB.
Automatic Frequency Control	Holds over 800 Kc./s.
Aerial Input Impedance	70-80 ohms co-axial and 300 ohms balanced.
Output	0-500 millivolts variable.
Output Impedance	600 ohms from cathode follower stage.
Power Consumption	26 watts.
Dimensions	Front panel 10½" x 4½" and depth of chassis from front to back is 8".

The tuner is constructed on a high grade rust proof stove enamelled chassis and can if desired be supplied in a cabinet at £2.16s.0d. extra.

One of the main features of this tuner is the self-tuning system employed. It is only necessary to set the dial so that the station becomes audible. The automatic frequency control system then accurately tunes the receiver on to the station, which is of course vitally necessary for high quality reception. With this system there is absolutely no drift whatsoever. The tuner was tested in conjunction with two tape recorders and a Hi Fi amplifier. There is ample signal output to fully load the radio or pick-up input sockets of most tape recorders and of course the quality of reproduction is superb. A good recorder and an FM tuner such as the Armstrong T4 is the ideal combination for the serious music recordist. If the tape recorder has a through monitoring facility it may of course be used in conjunction with the T4 for direct listening as well as recording.

Operation of the T4 is simplicity itself. It requires only connection to a mains socket and a single screened lead to couple it to a recorder or amplifier. Controls consist simply of an ON/OFF switch, the tuning control and, at the back of the chassis, a pre-set gain control.

In the North London area where the tests took place, an aerial consisting of three feet of wire was sufficient to bring in the Wrotham Home, Light and Third programmes and full strength. At greater ranges a proper FM aerial must of course be used.

Like all Armstrong equipment the T4 is well designed, strongly constructed and is fitted with a clearly calibrated tuning dial. It has my recommendation as a first-class self-contained tuner that will do full justice to any tape recorder or Hi Fi amplifier. The T4 Tuner is manufactured and distributed by the Armstrong Wireless and Television Co., Ltd., Warlters Road, Holloway, London, N.7, and is priced at 19 guineas.

DOUBLE PLAY TAPE

Return of Post Service	<i>All post free</i>
B.A.S.F. 300ft. (3") 14/-; 600ft. (4") 25/-; 1,200ft. (5") 42/-; 1,600ft. (5½") 52/6; 2,400 ft. (7") 77/6	
MSS. 300ft. (3") 14/-; 1,200ft. (5") 45/-; 2,400ft. (7") 80/-	
EMITAPE 100. 100/3N 400ft. (3½") 17/-; 100/12H 1,200ft. (5") 45/-; 100/24H 2,400ft. (7") 80/-	
SCOTCH BOY 200. 400ft. (3½") 17/-; 1,200ft. (5") 45/-; 2,400ft. (7") 80/-	
TELEFUNKEN. 1,200ft. (5") in plastic container, 40/-; 1,800ft. (5½") in plastic container, 50/-; 2,400ft. (7") 75/-	

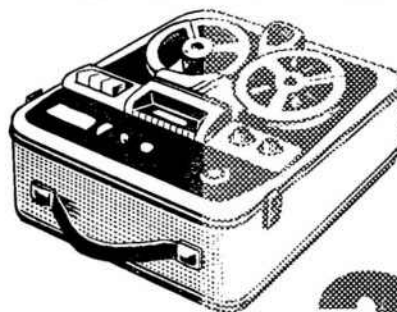
Full list of Standard and L.P. Tapes and accessories available free.

WATTS RADIO (Mail Order) Ltd.

54 CHURCH STREET, WEYBRIDGE, SURREY

NOTE.—Post orders only to this address

IS HALF YOUR TAPE RECORDER



WASTED?

The performance of a portable tape recorder is severely limited by the space available for its internal loudspeaker.

The connection of a high quality external speaker will reveal hidden detail in your recordings, and the Wharfedale PST/8 is an ideal choice.

This unique, patented enclosure design gives optimum results with Wharfedale 8" foam surround units which are available in a range of impedances to suit all machines.

Descriptive literature sent free on request

**WHARFEDALE
PST/8**

PRICE cabinet only
£7 10 0 in whitewood
£10 10 0 finished in
walnut, oak or
mahogany veneers.

Recommended units 8" Bronze/FS/AL £4 6 7 inc. P.T.

Super 8/FS/AL £6 19 11 inc. P.T.



Tel.: Idle 1235/6

Grams :
"Wharfedale" Idle
Bradford

Wharfedale
WIRELESS WORKS LTD
IDLE BRADFORD YORKS



the **FINEST** TAPE RECORDERS on **INTEREST FREE** TERMS

Write, Phone or Call today.

You can buy by post with perfect confidence

DEPOSITS FROM 20% 12 MONTHS TO PAY

I know how difficult it is to choose the Tape Recorder. That is why more and more people come to the Royal Opera Arcade, because my advice, personal attention and help are freely given. Full demonstrations at any time, and you can always examine and hear the latest and most interesting machines. Remember—I am here to help you.

Leaflets gladly sent if you are unable to call.

LAURENCE DICKINSON



NEW! 4-Track Monaural Recorders
PHILIPS 59 gns. **TELEFUNKEN** 64 gns.
 4-Track **STEREO/MONAURO**AL RECORDERS
PHILIPS 92 gns. **HARTING** 86 gns.
KORTING 68 gns. **ELEKTRON** 77 gns.

CAMERAS. By Zeiss, Agfa, Eumig, Voigtlander, etc. Send for lists.

READ THE ALL IN ONE Tape Recorder Book, 12/6d. Packed with information.

TELEFUNKEN DA CAPO RADIO. 39 gns. Call and Hear this fine instrument.

TELEFUNKEN TAPE DECK, 63 gns. Use it with your amplifier or with the Telefunken Radio.

ACCESSORIES. We carry a wide range of microphones, earphones, leads, telephone adaptors, etc., etc.

SERVICING. We undertake Rapid and Efficient Servicing of all Tape Recorders.

TAPES. Audio, Agfa, B.A.S.F., E.M.I., GELOSO, Scotch Boy, Telefunken, etc. Send for lists.

Dickinsons of Pall Mall Ltd

11 Royal Opera Arcade, Pall Mall, S.W.1. TRA 2881

The Royal Opera Arcade lies behind Her Majesty's Theatre in the Haymarket
 (one minute from Piccadilly Circus or Trafalgar Square)

Model	Gns
Philips 3515	32
Sagatone	38
Elizabethan Princess	39
Simon Minstrelle	39
Perth Saja	45
Wyndson Victor	45
Elektron	47½
Magnafon	49
Spectone Ex Tape	49
H.M.V.	£50
Grundig TK20	52
Telefunken 75 with mic.	56
Perth Saja De Luxe	56
Brenell 3 Star	58
Veritone	58
Mobile	58
Ficord	59
Grundig TK25*	62
Telefunken Deck*	63
Korting Stereo*	68
Telefunken 4-track with Mic.	68
Stuzzi Mag-Nette	69
Brenell Mk. V with Mic.	69
Grundig TK30*	72
Brenell M.V. with meter. Mic.	74
Elektron Stereo*	77
Telefunken 85KL*	79
Sabafon Automatic*	84
Harting Stereo*	89
Timbra*	95
Simon SP4*	95

* Excluding Microphone

THE SIGHT AND SOUND CENTRE

will send you their SENSATIONAL CATALOGUE with more than

140 DIFFERENT MODELS

LOOK! EASIEST TERMS EVER!!

GRUNDIG TK24	62 gns. dep. £13. 2.0	FREE
COSSOR CR1602	37 gns. dep. £ 7.17.0	after-sales
COSSOR CR1601	59 gns. dep. £12. 9.0	service with
ELIZABETHAN Major	65 gns. dep. £14. 5.0	12-24 months
REPS R40	70 gns. dep. £15.10.0	guarantee!

! R. B. TAPES DO IT AGAIN !

Brand-new **FAMOUS FOREIGN TAPE RECORDERS**
 offered at the Fantastic Price of **35GNS.** Dep. £7-5-0
 Balance 24 mths.

including TAPE, MIC, AUTOMATIC TAPE STOP, FULL MIXING, FREQU. 50-16,000 c.p.s. 2½ watts undisturbed output!

R.B.TAPES

THE SIGHT AND SOUND CENTRE

179 STOKES NEWINGTON HIGH ST
 LONDON N16 CLISSOLD 9477
 also at 89-91 Gt. Ancoats St. Manchester 4



OPEN ALL SATURDAY

Write NOW for All Your FREE Literature.

NAME

ADDRESS

A.T.R.

TAPE TABLE

(Continued from page 11)

The rest of the wiring to this plug was simple; the screened lead marked 'Audio—output' on the pre-amp was taken to terminal 2 and the remaining terminal 1 was connected to a 2ft. length of co-ax cable terminating in a P.O. Jack plug to provide the connection from the gramophone pick-up when it is plugged into the 'Radio' socket on the pre-amp panel. The Painton plug was modified by inserting an earthplate, as in the record player socket, to eliminate hum pick-up.

INTERCONNECTING LEADS, PLUGS AND SOCKETS

As explained, I wanted a single mains input and switch control for the whole system to ensure ease of operation and uniformity of mains leads sensing; bringing the mains lead from the record player to the tape deck in the same cable form as the amplifier input and pick-up leads. The first cable form was made up of two co-axial leads (T.V. aerial leads) and a pair of twisted P.V.C. flexible mains leads with the end plug and socket modified by the earth plate. The whole was bound together with plastic adhesive tape.

Co-axial cable has a self-capacity of approximately 20 micro-microfarads per foot, and this factor determines the length of interconnecting cable that can

be used without excessive top cut. I found that 10ft. was the maximum length possible to ensure the reproduction of the highest frequencies that the equipment was capable of delivering. Later I obtained a four core cable which contained two self screened leads.

HUM ELIMINATION

Having completed the wiring between tape deck, pre-amplifier and power pack, I plugged in the interconnecting cable to the record player. A quick check on mains connections was to switch the tape deck and pre-amp controls to 'record' when the Peak amplitude indicator should glow.

The gain and loss controls of the record player were then advanced to full, and the power pack, which I had placed in the second compartment of the table/stool as far from the tape deck as possible, was then orientated. (This second compartment is now also a storage for the tape spools microphone and a Fi-Cord portable recorder.) When the point of minimum hum was found the power pack was screwed down, and a tin-plate screen placed over it. The checks by the way, were made on both record and play-back positions on the tape deck and pre-amp, with and without motors running. The residual hum was compared with that existing on the record player when functioning normally. With the screened

power pack in its final position there was no difference whatsoever. After the hum checks I carried out checks on the tape deck and pre-amplifier in accordance with the Wearite and Stern's descriptive manuals.

WE PUT IT ALL ON TAPE NOW

The equipment is now constantly in use. Sometimes it does service as a telephone stool and by using the Acos telephone attachment we can record calls with no trouble at all. In the sitting room the table is a valuable piece of furniture one minute and the centre of a recording session the next. Recently I bought a Fi-Cord portable recorder and fed my recordings through the coffee table deck to the larger tape spools—a valuable facility because I'm a keen cine fan and can now make and store location sound tracks. Sound tracks can also be built up from mood music and effects library records through the record player pick-up.

It's an extraordinary thing how the recorder has become an essential part of our lives now that it is always on the spot.

One word of warning though, if you ever think of making up a similar system—please check with a specialist that your amplifier/speaker system will match the tape deck and pre-amplifier, before you start work.



BACK NUMBERS of A.T.R. ARE AVAILABLE at 2s. EACH (Post Free)
Binders for 12 Editions 12/6 post free or Volume 1 Complete with Binder 31/6 post free



B.R.C. Badges

2/9d each, post free

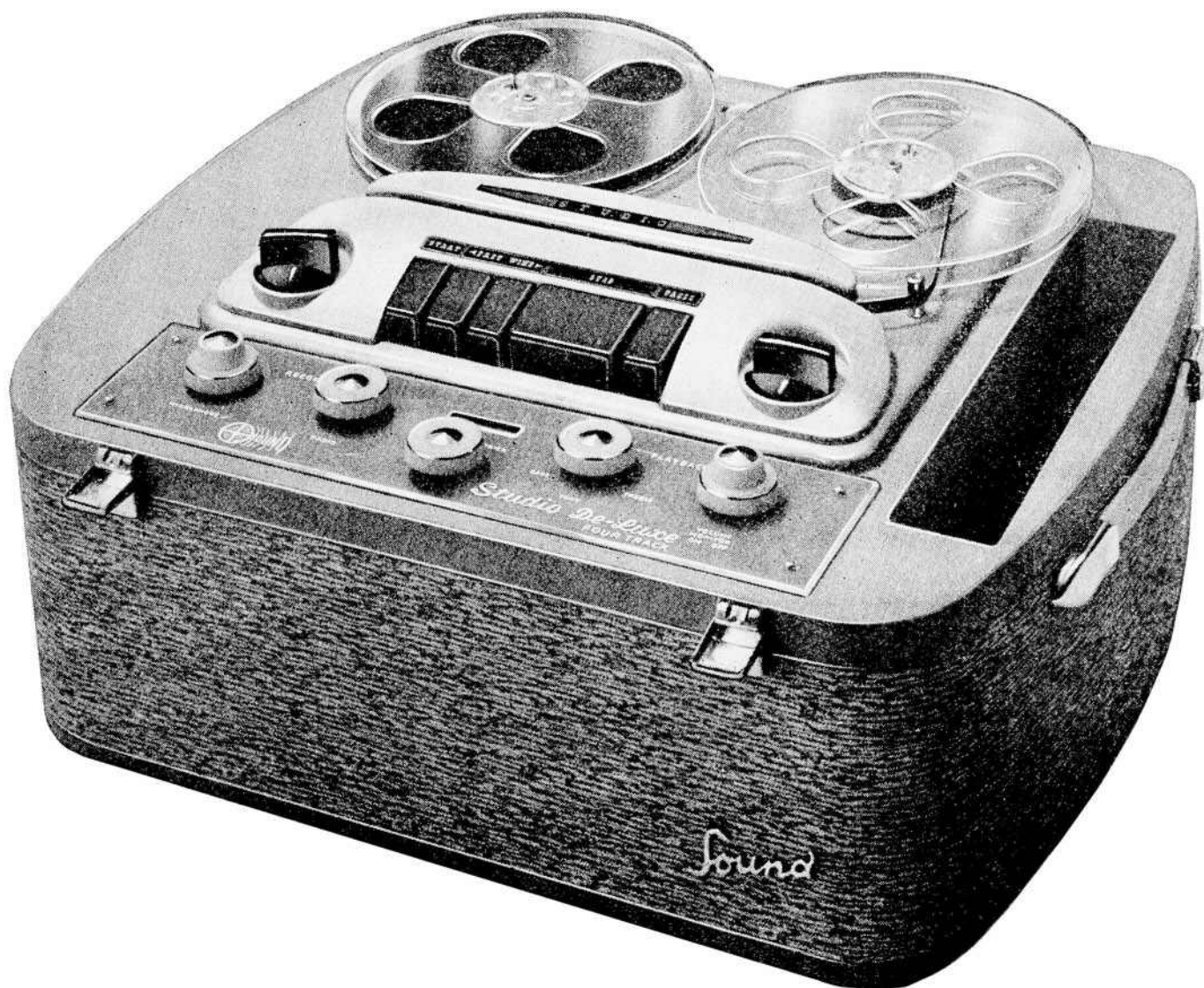
OVERSEAS: 3/- (50 cents, U.S.)

PLEASE SPECIFY BUTTONHOLE
OR BROOCH FITTING

BACK NUMBERS AND BADGES

obtainable from

145 FLEET STREET, LONDON, E.C.4



SOUND STUDIO DE LUXE 4-track tape recorder

This version of the popular Studio model gives up to *18 hours* record and playback time! This sensational recorder makes the most of every inch of tape and has a host of fine features.

- Monitoring, Mixing, Superimposing • Visual Place Indicator • Amplifier Facilities • 4 Tracks
- 3 Speeds, $7\frac{1}{2}$, $3\frac{3}{4}$, $1\frac{7}{8}$, i.p.s. • Takes 7" Spools with lid closed • Fitted with 1200 ft. of Standard Tape
- Dimensions $18" \times 14\frac{3}{4}" \times 7\frac{1}{2}"$

45 gns. complete with crystal microphone and 1200 ft. tape



TAPE RECORDERS (ELECTRONICS) LTD.

784-788, High Road, London, N.17. Tel: TOTtenham 0811-3. Cables: Taperec, London

For the
technically minded:

High fidelity
reproduction with
frequency response
50 to 16,000
c.p.s. at $7\frac{1}{2}$ i.p.s.
record/
playback response
60 c/s. to 15 kc/s. at
 $7\frac{1}{2}$ i.p.s.

CLASSIFIED ADVERTISEMENTS

6d. per word. Minimum 7/6. Box Nos. 1/6 extra

AMERICAN HI-LO RECORDING TAPE, 1,800ft. Long Play 35/-, 1,200ft. 24/6, 7in. spool. Guaranteed perfect. **ZODIAC RECORDS LTD.**, 32 **SHAFTSBURY AVENUE**, W.1. **REGENT 3030**.

EASYSPLICE TAPE SPLICER SPECIAL OFFER 3/9d. plus 6d. P. and P. guaranteed for easy accurate tape splicing. **Easysplice Co.**, 30 Lawrence Road, Ealing.

Friendly Folk Association, Torquay (Est. 1943), Members everywhere, Hobby Exchanges, Stamps, Photography, Viewcards, Tapesponding, Pen-Friends (100 countries).

Professional recording tape (joined) 1,200 feet 7 inch spools at 20/- inc. box P. and P. 1/6d. per reel extra. **Olympic Sound Studios**, Carton Street, W.1. Telephone: Hunter 1635.

TAPESPONDENTS LABELS 4½ x 3 inches, 200—12/- from **SHIRLEY ANN'S PRINTING/DUPICATING**, Castle Street, EYE, Suffolk. Samples on request. Telephone 219.

TAPE TO DISC—ALL SPEEDS s.a.e. for details **OMEGA RECORDING COMPANY**, 112 Sunnybank Road, Potters Bar, Mdx. Telephone 6428. (Evenings only).

TAPE TO DISC SERVICE. Send your recorded tapes to us and be sure of good service. 10% reduction allowed off initial Order. Figures in brackets denotes playing time in minutes. 78 rpm—Single sided discs, (2) 12/-; (3) 13/-; (4½) 15/6; or Double Sided 78s—(4) 14/6; (6) 15/6; (9) 18/-, 45 EP—(10) 19/-, LPs Single Sided discs—(9) 21/6; (15) 26/6; (20) 31/6; or Double sided LPs—(18) 26/-; (30) 33/-; (40) 37/6, 2/6 extra per parcel for Packing & Postage. SAE for leaflet:- **Sunderland Sound Services**, 28 Viewforth Terrace, Sunderland 57032.

New and Unused Recording Tape 7in. reels 1,200ft. 27/6 each (usual price 35/-); Ordinary tape 7in. reels 16/6, 5½in. 13/3, 5in. 12/-; Super quality 7in. reels 19/3, 5½in. 15/3; 5in. 13/9. P. and P. 1/- per reel. Empty plastic reels 7in. 2/10, 5½in. 2/8 P. and P. paid. Guaranteed on a money refunded if not satisfied basis. **A. Marshall and Son Ltd.**, 18 Cricklewood Broadway, London, N.W.2. GLA 0161-2.

RECORDING ACCESSORIES. Finest Quality Recording Tape, by first class British Manufacture. All Brand New and Individually boxed. 3in. Long Play 225ft. 7/6 each. Three for £1. Post Free. 5in. Long Play 850ft. 18/- each. Three for 52/6 Post Free. 5½in. Long Play 1,200ft. 24/- each. Three for 69/6 Post Free.. 7in. Long Play 1,800ft. 29/6 each. Three for 84/6 Post Free. All single tapes plus 1/- packing and posting. Microphone Cable Dispenser, with wind in handle, plug and stand. Indispensable for keeping Microphone, or Mains cable in good order. Price 45/- each, plus P. and P. 2/-. The New Pifco Illuminated Soldering Iron 35watt 22/6 post free. Henley Soldering Iron weight 3½ozs. 25watt. 24/- post free. All goods guaranteed, Money refunded if not satisfied. Please send for free lists, Assistance given with recording Problems. Post orders only to **RELAY RECORDINGS**, Mott Street, High Beech, Loughton, Essex.

DEVELOPMENT ENGINEER for laboratory of highly reputable tape recorder manufacturers. Electronic and mechanical experience in this specialised field essential. **Wyndson Recording Co. Ltd.**, 2 Bellevue Road, Friern Barnet, London, N.11.

"EROICA" RECORDING STUDIOS (1949). Private and Commercial. Tape Recorders (Ferrograph, Brenell, Mag-nette, etc.) and all accessories. Tape/Disc/Tape Service. Consult Experienced Recordists. 31 Peel Street, Eccles, Manchester. ECCles 1624. Studio Director: Thurlow Smith, A.R.M.C.M.

PRE-RECORDED TAPES all makes, 7½ and 3½ i.p.s., send for free lists or visit **TELETAPE** (Dept. TR2), 33 Edgware Road, W.2. PAD 1942.

TAPES NEED PROTECTION from atmospheric changes: keep them in perfect condition within shaped polythene bag 'Tape-Protectors'. Per dozen: 3in.—1/6d.; 4in.—1/8d.; 5in.—1/9d.; 5½in.—2/-; 7in.—2/4d.; 8½in.—2/8d. From your Dealer, or (adding 6d. postage), from **Swains Papercraft Ltd.**, Dept. 28, Buckhurst Hill, Essex.

Ferrograph 4 A/N's—808's Vortexion WVA, WVB, Simon SP4, Reflectograph '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 the 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.

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

TAPE TO DISC RECORDING.—Microgroove L.P. from 27/6. 78 r.p.m. from 11/-. 48-hour service. S.a.e. for comprehensive leaflet to: A. D. Marsh, "Deroy" Sound Service, Little Place, Moss Delph Lane, Aughton, Ormskirk, Lancs.

TAPE/DISC/TAPE transfer, editing. If quality and durability matter (especially with L.P.'s from your precious tapes) consult Britain's oldest transfer studio. (6in. L.P. 16/-). Limited quantity new, branded U.S. tapes in original boxes occasionally available. (1,800ft. 30/-). Finest 2 year after-sales service provided with recorders. **SOUND NEWS**, 10, Clifford Street, W.1. REGent 2745.



NUSOUND RECORDING CO.
TAPE RECORDER Specialists
Ferrograph
APPOINTED DEALER
35 CRAVEN ST
TRAFALGAR SQ.
W.C.2
TRA 2080
—remember Trafalgar Twenty-Eighty

SPECIAL ANNOUNCEMENT

Evaluation! The **FABULOUS AMPEX**, Ferrograph or Vortexion, Reflectograph or Grundig, Simon or H.M.V. and many more fine instruments to be seen and heard at **NUSOUND RECORDING COMPANY'S** new London Showroom. Personal attention, and keen interest in a prospective customer's requirements. Technical and practical advice on problems that are individual, and in addition, quiet and pleasant surroundings purposely planned to create the 'home' atmosphere. We invite you to visit us, telephone or write for lists. **NUSOUND RECORDING COMPANY**, the Tape Recorder specialists.



Geoffrey V. Smith
(SOLE PROP.
NUSOUND REC. CO.)

CLASSIFIED ADVERTISEMENTS (Continued)

SOUND SERVICES, for high standard, low cost Tape Recorder repairs by professional HI-FI sound engineers. Telephone: Billericay 1391.

GRUNDIG TK25. MINT CONDITION. Complete with Tape and Mic. Accept £55 o.n.o. Write I. Handl, 29 Caroline House, Bayswater Road, W.2.

DONATE 2s. 6d. (100ft. of Tape) to the **BRITISH RECORDING CLUB TAPE BANK** for the use of the Hospital Broadcasting Service and the Tape Reading Circle for the Blind. 145 Fleet Street, London, E.C.4.

ELIZABETHAN DE-LUXE, immaculate condition. Cost 65 gns., accept £30 o.n.o. **G. BOWLES**, 93 Farnham Road, Welling, Kent. **EVENINGS**.

SHEEN TAPE RECORDER CENTRE LTD.

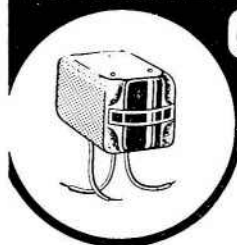
*Specialists in Tape Recorders and Accessories
Serving London and Home Counties
Your Centre for Friendly Help—Sales—Service*

**FREE Home Demonstration—Day or Evening
To Show Any Model You Require
Advice on All Makes from 19 gns.
Details—With Pleasure—Call—Phone—Write**

8 Station Parade
Sheen Lane
Sheen, London, S.W.14
(Next to Mortlake Station S.R.)

Open 10 a.m. until 7 p.m.
Early Closing, Wed., 1 p.m.
Showrooms: PROspect 0985
Office: CHIswick 5487

CONVERT YOUR TAPE-RECORDER TO THE BEST CONTINENTAL STANDARDS



with a genuine
TELEFUNKEN
RECORDING HEAD
TYPE 402A

Other than Continental tape recorders can be improved in performance beyond recognition by replacing existing heads with a Telefunken Half-track Monaural Record/Playback Head Type F.402A. This is the head used in many of the finest Continental recorders to-day, and it is very easy to fit. Existing erase head remains. A special purchase by TSL's continental buying office enables these superbly engineered heads to be offered factory fresh at a third of their normal price of 6 gns.

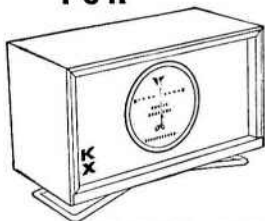
2 GNS.

- Frequency range — 30 to 20,000 c/s
- Gap — 0.00014in.
- Bias Current — Approx. 1 mA
- L at 1 Kc/s — 1 henry
- Q-Factor — better than 4

From your usual stockist, Trade enquiries invited

TECHNICAL SUPPLIERS LIMITED
HUDSON HOUSE, 63 GOLDHAWK RD., LONDON, W.12
Phone: SHEpherd's Bush 2581 and 4794

STEREO BALANCE UNIT FOR



VISUAL DISCRIMINATION

Perfect enjoyment of stereo recordings can only come with perfectly balanced loudspeakers. The S.B.I Unit completely eliminates error by giving an accurate visual indication and enables any type of stereo system to be "tuned" in seconds.

The S.B.I is beautifully finished in a blond oak cabinet and costs

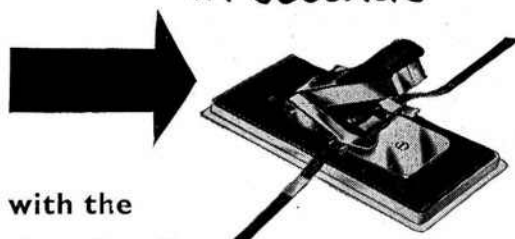
£7.19.6

WILMEX LIMITED

ST. STEPHEN'S HOUSE · WESTMINSTER · LONDON, S.W.1

Tel: WHI 3213/4

A professional splice in seconds—



with the

irish S.P.3 Tape Slicer

- ★ Neat blip-free splices
- ★ Unique bow trim leaves edges free of adhesive
- ★ Built-in replaceable blades of high-grade steel for exceptionally long life
- ★ Only ¼" of splicing tape per splice
- ★ Removable base allows splicer to be mounted on recorder

The 'Irish' Splicer is five times better at only **67/6**

LISTEN BEFORE YOU LEAP

THOSE of us who know little about decibels and flat frequency responses might not raise our eyebrows at the facts and figures describing the much-talked-about new WyndSOR "Victor" portable. Those who are genned up to translating the specification into words and music are not surprised that the "Victor" sounds better than some tape recorders nearly twice the price. But make no mistake if you are about to plunge: the WyndSOR "Victor" is a quality-all-the-way portable, so beautifully designed and executed as to bring professional-sounding recordings within the reach of the most non-technically-minded amongst us.

Mark these following features and ask yourself how does WyndSOR do it at the price.

★ frequency responses:—

7½ i.p.s.—50 to 15,000 c.p.s. better than ± 3 dB.

3½ i.p.s.—50 to 9,000 c.p.s. better than ± 3 dB.

1½ i.p.s.—50 to 5,000 c.p.s.

★ full frequency equalisation at *all speeds*.

★ 10" × 6" elliptical speaker in detachable lid.

★ up to 8 hours playing time on one D.P. tape.

★ monitoring through its own speaker with independent control.

★ finger-tip controls closely grouped.

★ mixing facilities for mic and gram/radio inputs.

★ additional output with automatic speaker cut-out.

★ facility for use as an amplifier.

★ three independent 4-pole motors.

★ unique styling in two-tone grey with gilt fittings.

★ twin tracks ★ pause control ★ tone control.

★ guarantee: 12 months (valves 90 days) and the name of WyndSOR.

And how *do* they do it? By the experience that ten years' manufacture of quality tape-recording equipment only can bring. By design-creation only after intensive market research and nation-wide trade inquiries, so that WyndSOR tape-recorders virtually sell themselves, without sales-force, without large advertising campaigns, without exhibiting at you-know-where, and with minimum servicing requirements after sales. All these overheads are conspicuous in the price by their absence.

If history is anything to go by, widely publicising the "Victor" would overwhelm the WyndSOR factory. WyndSOR policy is never to sacrifice quality for quantity and the fact is that there were never enough of the "Victor's" predecessor, the "Viscount", to satisfy the demand. So now is the time for all good enthusiasts to inquire at WyndSOR dealers or to send postcards (clean variety still preferred) to the modestly proud makers for the names of nearest stockists. There is nothing more annoying than hearing a WyndSOR just after buying an ordinary tape recorder.



The new WYNDSOR "VICTOR" complete with crystal microphone, 1,200 feet of tape, and spare jackplug, is only 45 guineas.

WYNDSOR RECORDING CO. LTD.,

(Contractors to H.M. Government)

WyndSOR Works,
2 Bellevue Road,
Friern Barnet, London, N.11
Telephone: ENTERprise 2226/7
Telegrams: Wyndreco, London



"BRAND FIVE"

MAGNETIC RECORDING TAPES

made by

FERRODYNAMICS
CORPORATION
U.S.A.

**NOW AVAILABLE
FROM
LEADING
DEALERS
EVERYWHERE**

Perfection...

High Grade Acetate Base

5 in.	600 feet	16/-
5 in.	900 feet	18/6
5 3/4 in.	1,200 feet	23/6
7 in.	1,200 feet	25/-
7 in.	1,800 feet	35/-

Extra Quality Mylar Dupont

5 in.	1,200 feet	37/6
7 in.	1,800 feet	44/-
7 in.	2,400 feet	60/-

**THE BEST
TAPE VALUE!**

**"Brand Five" Ultra Sensitive Magnetic Recording
Tapes cover the whole Speech and Musical Spectrum**



Wholesale Enquiries to Official Distributors:

V. L. DEWITT LTD., 24/26 Hampstead Road, London, N.W.1. Tel.: EUSton 5533

Enquiries from Tape Recorder Manufacturers to:

ELECTRO-TECHNO-DYNAMICS LTD., 101 Leadenhall St., London, E.C.3. Tel.: AVenue 6982



LOOK FOR THE ATTRACTIVE 'BRAND FIVE' BOXES

Red-Acetate L.P. Blue-Acetate Std. Green-Mylar Dupont L.P. Yellow-Mylar Dupont D.P.