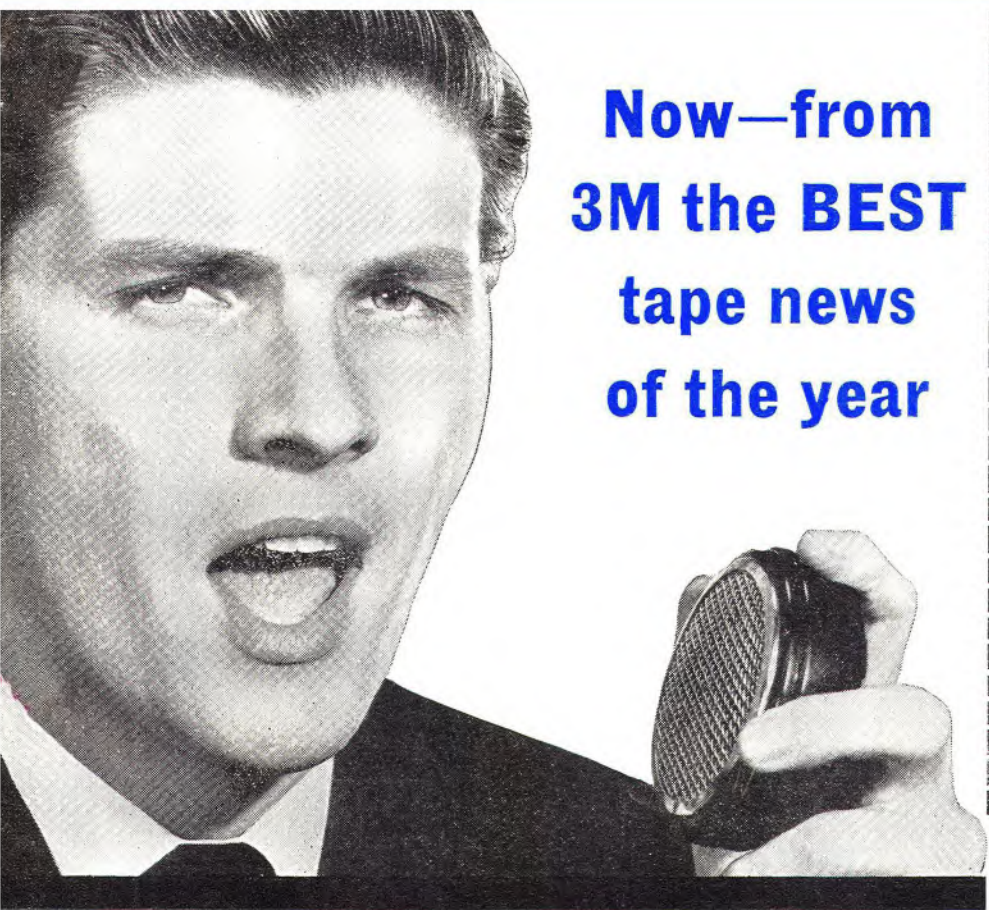


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1957

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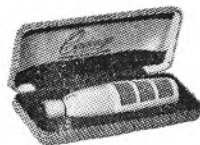
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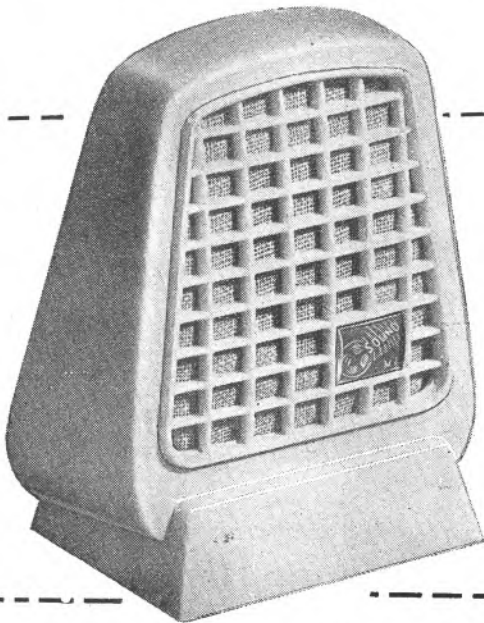
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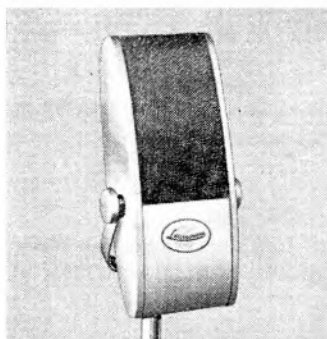


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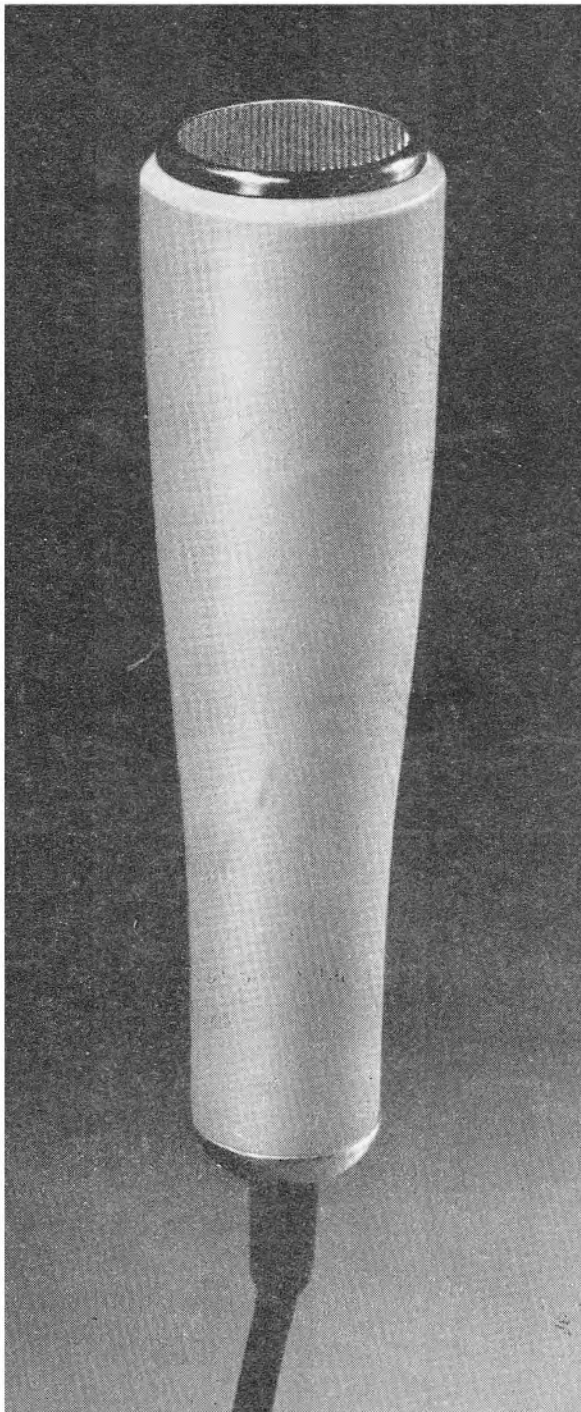
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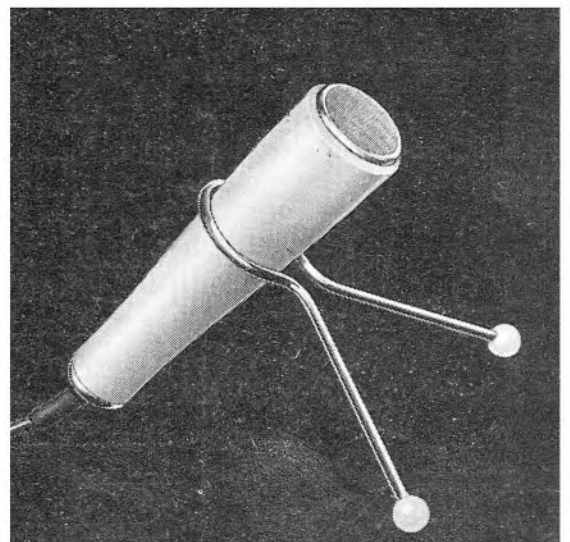
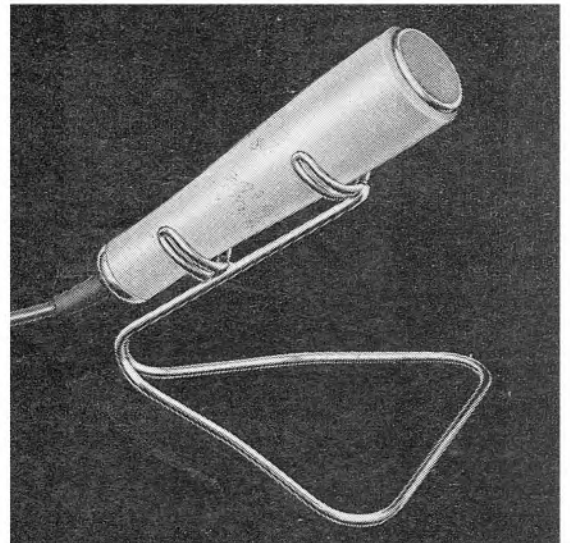
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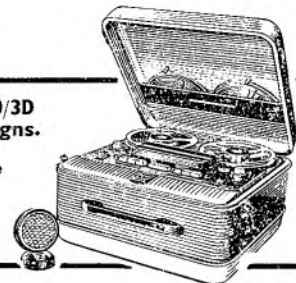
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*reporting on the home, office, factory, school, ciné,
amateur dramatic and musical uses of sound tape*

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Tape and Taxes

WHAT NOW IS THE PLACE of tape recording in Britain's electrical and radio industry? The question is appropriate at this time of the year, when another Radio Show focuses popular attention on this field.

There is no other sector of the front which shows more rapid or more spectacular advance than magnetic tape. Elsewhere in this issue, readers will find evidence of new firms entering the field, and of older firms making progress. We have information—confidential for the present—of further important developments in the near future.

At this time of the year it is possible to discuss dispassionately the effect of taxation on the industry. It is undoubtedly the case that tape recording has been artificially insulated from other sectors because it escapes purchase tax, which bears heavily on radio and electrical equipment in general. For this exemption there are, of course, the strongest of reasons.

But if radio, record players and tape equipment were on equal terms—and what we envisage, of course, is the lifting of the tax where it now exists—development might thereafter follow a different pattern. There might be more experimentation with combined disc-tape equipment, of the type described in a special article in this issue. As things now are, the Germans and the French are stealing a march on us. And there would almost certainly be more sets combining tape facilities and radio.

After consultation with those at Westminster who have their ears to the ground, we believe that changes in taxation policy are certain to come—if not next April, then in an early Budget in a later year. But they are not likely to include slapping the same heavy tax on tape equipment as other products now carry.

Purchase tax is a very unpopular tax, and there is evidence that the Government would like to have done with it. But it must have some alternative source of revenue, and Treasury thinking now runs on the lines of a general sales-tax. If that comes, tape cannot hope to escape. But the rate of tax would be low, compared with present purchase tax levels.

Far-seeing manufacturers are weighing up these possibilities and basing long-term plans on their estimates. An acute eye can detect the signs.

Meanwhile, though technical and commercial developments may be inhibited by tax policy, the public is being well served. The facilities offered to tape enthusiasts who want to record radio programmes provide an outstanding example. The range of VHF tuners now on the market, reviewed in a special supplement this month, is impressive. Once again, we have in the Radio Show the most solid evidence of progress and achievement.

*** Always a Winner!**

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Gilbert Phelps on

making a feature tape

THE LINKING NARRATIVE

The author has advised many well-known broadcasters
—and radio producers too—on correct technique

THE fundamental principle for success in any recorded programme is that it should grow out of some central theme, mood or idea. If you want to get significant results in photography, you don't rush round taking all kinds of pictures at random, and if you want to get the best results with your tape-recorder you must exercise some degree of imaginative control from the start. The programme may change and develop as you go along, but that is a very different matter from trusting to luck, recording a snippet here and a snippet there, in the hope that eventually you will be able, somehow or other, to link it all together. In nine cases out of ten a programme put together in this haphazard way will sound clumsy and artificial.

And what is more, when you come to write the linking narrative you will probably be forced into all kinds of gimmicks in an attempt to draw together bits and pieces that have no real connection. Think, for example, how excruciating some of the laboured, clever-clever commentaries by inexperienced disc jockeys sound. The truth is that linking material, however ingenious, cannot make up for deficiencies in compilation and selection.

If, however, you have planned your programme properly from the beginning, you will be able to devote the final stages to deciding upon the most effective running order for your items—allowing for light and shade, variations in tone and tempo, effective contrasts, aiming at climax, denouement and an over-all shape—and to linking them in an easy and natural way. It cannot be too strongly emphasised that good narration is an *integral part* of the programme, not merely padding or a means of jumping from one point to another, but itself largely contributing to the over-all mood, shape and interest.



In the writing of this linking material the principles that apply are those common to all writing for radio.

Aim at a style as direct and vivid as possible. Choose words and images that appeal immediately to the imagination and the senses. The style of a lecture is rarely suitable; in fact, experience in public speaking is, as often as not, an obstacle rather than a qualification.

In a lecture or an article, you may use the impersonal *one* or the regal *we*; on tape, the personal pronouns, *I* or *we* must predominate. Avoid the dry language of the official statement, the clichés of the publicity hand-outs. Keep the script free of circumlocutions, pedantries, flourishes, and over-literary language and constructions.

This does not mean, on the other hand, that the script must be larded with all kinds of abbreviations, colloquialisms and jollifications.

Use the forms of speech that come naturally to you. Most people say *don't*, rather than *do not*, in ordinary

conversation—but some do not. Nor need the script be broken up into short, simple sentences. It must depend on the individual, and the kind of constructions his tongue most naturally embraces.

This is the general advice to bear in mind: speak inside your head, as it were, all the time you are writing the script.

And speak, not in an imaginary lecture room, but to people sitting in their own armchairs at home.

What about speed? The rate varies slightly from individual to individual and perhaps, too, from region to region. The rough average in B.B.C. domestic services is 130 words a minute, and you can make your calculations on that basis.

Write the number of words you can comfortably speak—not read, not shout, not preach, not lecture—in the time available.



You must make your feature interesting to other people. To arouse their interest, it must be composed with personal conviction and integrity. Everything you have to say should be a fresh and personal exploration or re-exploration of thought, feeling or experience.

People will read a guide book or an encyclopædia or an official handbook when they are looking for the plain facts. Indeed, they will read the backs of bus tickets if they have nothing better to do. But they will certainly not be able to tolerate the human voice emanating from a tape recorder if it attempts to do the same thing.

You are aiming at a form of communication which is at once more immediate and more intimate than that of the written article. You are appealing not to the eye that can scan, or skim, the page at leisure, but to the ear that must be instantly alerted, and which must be constantly kept on the *qui vive*.

As for the speaking of the narration into the microphone, the very simple and obvious rule is—*be natural and relaxed*. Don't shout, don't gabble, and don't neglect pauses when they are dramatically effective. Don't be chilly and aloof in manner, but on the other hand don't try to "jazz up" your programme by false hilarity, cosiness, or over-emphasis.

Don't try to be an announcer, a master of ceremonies, a town-crier, a barker at a fair, or a drill-sergeant—be yourself and your programme will gain in sincerity and conviction.

But if you have followed the principles that apply to the compilation of any successful programme, on tape or film or any other medium, you will find that the speaking of the narration presents no difficulties. You will fall into the manner of speech that is natural to you, and right for your programme.

HOMO TAPIENS

by

Douglas Gardner

Psychiatry

THE variety and subtlety of the uses of tape are beyond human computation. The point is nicely illustrated by my favourite current story of the psychiatrist who secretly recorded his reclining patients' subconscious revelations on tape and interpreted them later, at leisure. The psychiatrist was in the habit of creeping off and making a cup of tea during these sessions. On one occasion he was embarrassed to discover, on glancing up from the newspaper, that his patient had also crept away, poured himself out a cup of tea, and buried himself in a newspaper.

The explanation was simple. The patient had said his piece on to his own tape recorder at home and it was now "telling it" to the psychiatrist's machine.

Not so far-fetched as to be quite impossible. But the story encourages me to ask readers to tell me how they have used their recorders in any unusual way. Good ideas will be passed on, with proper acknowledgment.

* * *

Stammerers

Add to the list of benefits of tape the help it can give to people who stammer. A London reader tells me that "confronted solely by my friend the mike" he can accomplish smooth and deliberate diction without any trace of his usual affliction. He finds that the exercise is already bringing an improvement in his normal speaking.

In his case, the discovery was especially gratifying because he'd always wanted to expound on his favourite subject, spiritualism. Now he can record talks for replay at meetings. He also records and replays proceedings of seances.

* * *

Skiffle

I don't know a great deal about the modern skiffle movement. It evidently has a wide variety of manifestations, but I'm sure some branches of it, at least, are very exciting and worth-while.

One little group I know has discovered that a tape makes all the difference. They've always played together just for the fun of it; but since a tape recorder came their way they have improved by leaps and bounds, finding that the effort to make a first-class recording gives them an extra incentive.

Naturally, they can also study their faults more easily, and they are able to hear themselves at a distance and in proper relationship to the other players.

* * *

Progress

In several places and in many ways, I've had proof lately that tape recording is about to take great strides forward, with some significant new developments on the drawing boards.

But rarely have I enjoyed so stimulating an experience as a recent visit to the new Tottenham factory of Tape Recorders (Electronics) Ltd., and a chat there with one of the directors, Mr. S. Eisler.

This is a brand-new factory: bright and light, roomy and airy, imaginatively planned and impressively equipped with



THE CAT'S IN THE BAG

In other words, the recording is on tape. Smooth as fur, highlights flashing like feline eyes. A good job done, memories filed. We've every right to be pleased with ourselves.

But wait. . . Who's been interfering with this tape? It sounds like midnight on the tiles. If this goes on much longer, I'll be having kittens.

the latest machine tools and office aids. When I was there, about 100 people were employed.

But by the end of this year, the picture will be very different. The labour force will have been doubled. The assembly line will have been doubled, too. And output will have *more than doubled*. The objective is a production of 400 tape recorders a week.

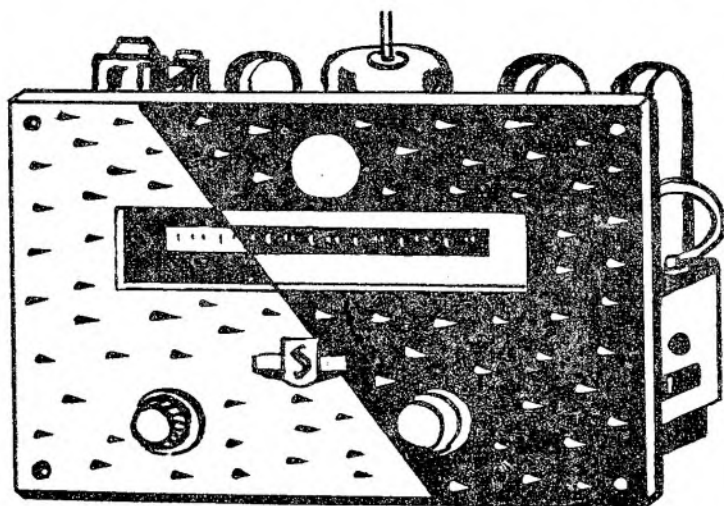
This is an indication of what is happening in the industry. There is confidence, courage and imagination. I think—and Mr. Eisler encouraged me to expect—that we can look forward to exciting developments next year.

WHEN YOU ARE WRITING

The address for all editorial matters is TAPE RECORDING MAGAZINE, 426, Camden Road, London, N.7.

But all advertisement communications, including Classified Advertisements, should be sent to Advertisement Manager, TAPE RECORDING MAGAZINE, 178, Fleet Street, London, E.C.4.

Recording From The Radio



WATCH THE LAW

Tape enthusiasts who use radio tuners with their recorders must keep very much in mind the law of copyright. There could be no safer guidance than that provided by the B.B.C., who recently published the following statement.

The Copyright Act, 1956, came into force on 1st June, 1957, and under this Act it is an infringement of B.B.C. rights to do any of the following things without first obtaining permission from the B.B.C.:—

1. A record may not be made of a sound broadcast or of the sound part of a television broadcast otherwise than for private purposes.

2. A film may not be made of any sequence of images in a television broadcast sufficient to be seen as a moving picture, otherwise than for private purposes.

3. A television broadcast may not be shown in public to a paying audience.

In addition to the permission of the B.B.C. for the above purposes, permission must be obtained from the owners of any copyright material used in a broadcast for the recording, filming, or public performance of their material, and the consent of any dramatic or musical performers taking part in a broadcast must be obtained for the recording or filming of their performances, otherwise than for private and domestic use.

TAPE AND TUNERS

THE National Radio Show, to be held at Earls Court, London, from August 28 to September 7, concentrates the attention of tape enthusiasts on the advantages of using tuners in conjunction with recording equipment. They will find there a good choice of tuners, none of them very expensive, which will enable radio programmes to be played through the recorder and, when desired, transferred on to tape for repetition at will.

One of the most important applications of the tuner is that of permitting the creation of a library of music taken off the air, such recordings are less expensive, as a rule, than the equivalent items on discs—and, at their best, comparable in quality.

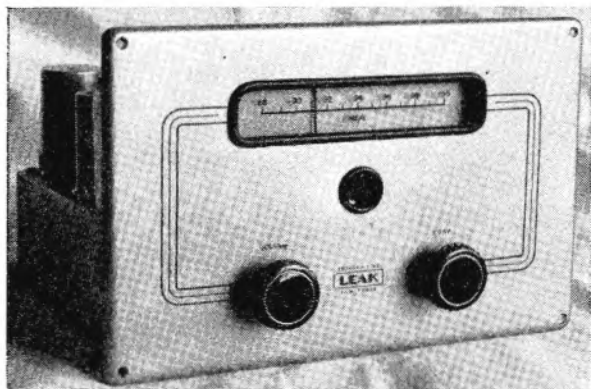
Many recordists consider it worth while to have both FM and AM tuners, but it is beyond dispute that the most satisfactory results are obtainable through FM, in view of its freedom from background noise and its extraordinary fidelity.

Some tuners are made by firms already well known as manufacturers of tape recorders, and both products are naturally designed to match each other closely in appearance and technically. But no difficulty is likely to be experienced in fitting any tuner to any tape recorder capable of supplying the necessary power.

Not all manufacturers who produce tuners will be exhibiting at the Radio Show; in fact, several of the best-known models will not be there.

Although tuners undoubtedly represent a most interesting aspect of the Show from the point of view of the tape recording enthusiasts, there will be many other exhibits that will command attention, such as high fidelity amplifiers, tape decks and loudspeakers; and a visit to Earls Court will undoubtedly be rewarding.

On the next two pages will be found brief details of a number of the principal tuners that are now available. Some, but not all of them, will be on view at the Show.



A FINE RANGE OF HI-FI TUNERS

One of the best-known British tuners — the Leak F.M. unit.

ACOUSTICAL

IF you are looking for an FM or an AM tuner of the highest possible quality, the Acoustical receivers present themselves automatically for consideration. And the price is very reasonable when it is recalled that they are intended to match the superlative quality of the firm's famous Quad II amplifier—and, incidentally to match it in appearance. The makers state that the limitation of frequency response of the FM tuner is that imposed by the transmitter, rather than the receiver, assuming correspondingly good amplifiers and loudspeakers.

Careful control of the bandwidth provides low distortion and high noise rejection, while temperature compensated circuits ensure that the tuner stays on tune. The indicator will show a tuning error of one part in 10,000. Adjustable station indicators are also incorporated in the dial, a time-saving feature which those who make recordings will appreciate.

The Acoustical AM tuner also matches the Quad II in appearance and the design makes the best of both worlds as far as the crowded condition of the medium and long wave bands allow. The edge-lit dial is calibrated in metres, and an electronic tuning indicator of the latest type is fitted to permit accurate tuning.

ARMSTRONG

AN FM and an AM tuner, both of top quality, are offered by the Armstrong Wireless and Television Co. Ltd. They are designed to operate with the Armstrong A.10 Mark II amplifier; and the front panels of the tuners and the control unit are identically finished. (The Sonixgram control cabinet has provision for all three, as well as transcription turntable and tape deck.)

The FM 61 VHF tuner is an extremely sensitive receiver. Freedom from drift is ensured by permeability tuning combined with special temperature compensated capacitors, and the unit also incorporates switched automatic frequency control. A twin beam magic eye tuning indicator facilitates precise tuning.

The AM.44 tuner has been designed to preserve quality to the full extent possible, while a variable selectivity control helps to reduce the interference to a minimum. There are two short wavebands, 16-50 metres and 49-120 metres; a medium waveband, 190-550 metres; and a long waveband, 900-2000 metres.

DULCI

THERE are several Dulci units of interest for tape recording. The FM (VHF) Tuner-chassis is a self-powered tuner of high performance incorporating a magic eye tuning indicator. The controls include an Off-FM-Gram. switch, FM tuning control, and a preset volume control for adjusting output level.

Another product of special interest to tape enthusiasts, is Model H.11, a combined and self-powered AM/FM tuner, high fidelity control unit and audio pre-amplifier, with switching and connections for tape recording and replay. It provides reception on the three AM wavebands, short, medium and long, in addition to FM with magic eye tuning; the pre-amp offers lift and cut on bass and treble, with visual indicators, and it has equalisation for gramophone recording characteristics. The output can be fed into any high fidelity amplifier. The tuner incorporates a tape record outlet to record from radio and gramophone, and a tape replay switch position.

E.A.P.

A SELF-CONTAINED power pack is a feature of the EAP Elizabethan FM Tuner Unit. It is a high stability VHF tuner, designed primarily for use with Elizabethan tape recorders, but it can very easily be fed into other recorders, any audio amplifier, or into most radio receivers.

The tuner is supplied in an attractive polished-ebony veneered cabinet, with a simple cream and black dial. A visual indicator ensures accurate tuning and the maximum drift is not greater than 20 kc/s.

YOU can pay . . .

	£	s.	d.
Acoustical FM	30	9	0
Acoustical AM	30	9	0
Armstrong FM 61 VHF	22	1	0
Armstrong AM 44	19	17	0
Sound Sales A-Z FM Unit Mk. III	21	9	4
R.C.A. New Orthophonic FM Tuner	33	11	4
Rogers RD Junior VHF/FM	24	17	0
E.A.P. Elizabethan FM	25	4	0
Lowther FM Mk. II	30	15	7
Lowther Mk. III (self-powered)	34	5	6
Jason "Prefect" AM	15	12	9
Leak FM (self-powered)	35	10	0
N.R.S. No. 1 Symphony FM Mk. II (Magic eye £1 5s. 0d. extra; power pack £3 7s. 6d. extra)	15	8	0
N.R.S. Empress FM/VHF Tuner/adaptor (self-powered)	13	15	0
N.R.S. No. 2 Symphony AM/FM (self-powered; magic eye £2 5s. 0d. extra)	27	6	0
Dulci FM/VHF Tuner chassis (self-powered)	17	10	3
Dulci AM/FM Tuner chassis Model H4T (self-powered)	20	17	0
Dulci AM/FM Model H11 (self-powered)	29	3	10
Pamphonic Model 640 FM Tuner Unit (power pack £6 10s. extra; dropper unit £2 5s.)	17	9	0
Champion FM/VHF Adaptor Model 835	17	6	5
Goodsell FMT501	19	14	0
Chapman FM Model 81 Mark II	22	1	0
Ferguson VHF/FM Adaptor	16	16	0
WB FM Tuner	25	0	0
WB FM (self-powered)	32	0	0
Truvox Radio Jack (Standard)	3	12	0
Truvox Radio Jack (Senior)	5	0	0
Dynatron FM 2LV (7-valve)	28	0	0
Dynatron FM 2HV (8-valve) (power unit PI £8 15s. extra)	33	12	0

FERGUSON

DEVELOPED first and foremost for adding FM to existing Ferguson radio receivers and radiograms, the Ferguson VHF/FM Adaptor is nevertheless suitable for use with tape recorders and any A.C. mains receiver. It has its own power unit and tuning is continuous over the FM band of 87-98 Mc/s.

GOODSELL

PERMIABILITY tuning and magic eye are features of the Goodsell FMT 501 FM Tuner. Model FMT 502 has permia-bility FM tuning and 2 gang AM tuning. An extremely neat and impressive switched-tuner has now been introduced, details of which will be published later.

A FINE RANGE OF HI-FI TUNERS

JASON

THE new "Prefect" FM Tuner offers a great deal of what the tape recording enthusiast is looking for, at a very moderate cost. Here we have the advantage of switch-tuning combined with automatic frequency control, so that the required station can be obtained immediately, and once switched in it remains stable and free from drift.

The unit is very neat, and the front panel, black with gold markings, measures only 3 in. by 2 in.

LEAK

THE most distinctive feature of the Leak FM Tuner is that the oscillator employs a trough-line as a tuning indicator. This, in conjunction with automatic frequency control, results in tuning stability within five kc/s from the instant of switching on.

There is a very clear tuning indicator and the tuner has its own power supply unit. It is insensitive to ignition and other forms of impulse interference.

LOWTHER

THE Lowther FM Mark II Tuner is designed to provide high sensitivity, low background noise, suppression of other than severe local electrical disturbance, and full dynamic range with distortion not greater than one per cent. No warming up period is required and automatic frequency control eliminates drift.

For AM reception, this firm produces two tuners, the DT/4 and the DT/5, with band-spreading tuning.

N.R.S.

THE No. 1 "Symphony" FM Tuner, Mark II, is based on a permeability-tuned coil assembly of advanced design, and housed in a die-cast protective anti-radiation shroud. It is designed specially for use with the NRS "Symphony" amplifiers and tape recorders. A slow-motion drive, facilitates tuning, and a magic eye is an optional extra.

The NRS "Empress" FM/VHF Tuner/Adaptor is completely self contained, with its own power supply for AC mains. Considerable sensitivity and high music/noise ratio are obtained by the use of five miniature valves with ten tuned circuits.

The No. 2 "Symphony" AM/FM Tuner uses separate AM and FM coil assemblies and separate IF transformers, so that there is no compromise in either case. It is fully self-powered.

R.C.A.

THE new RCA New Orthophonic FM tuner has been designed to serve as a companion to the RCA amplifier. Its styling and size match that of the pre-amplifier. The tuner may be used however, with any high quality amplifier capable of supplying its power requirements.

Technical specifications include a tuning range of 87.5 to 108 Mc/s, automatic gain control and AFC. Tube complement comprises seven valves, plus an RCA electron ray tuning indicator and two crystal diodes. Exceptional sensitivity of two microvolts for 20 db quietening gives greatly improved results, particularly in difficult and fringe reception areas.

ROGERS

A VAST army of hi-fi enthusiasts have found that the Rogers amplifiers and control units answer most, if not all, of their prayers—including the desire for economy.

They will find the looked-for inexpensive high quality in the company's RD Junior VHF/FM Unit.

Its range is wide enough for the reproduction of the highest and

lowest modulation frequencies radiated by the BBC; and the elimination of drift and other tuning problems by the incorporation of automatic frequency control is a feature that greatly helps to simplify recording on tape. A precision tuning meter is optional.

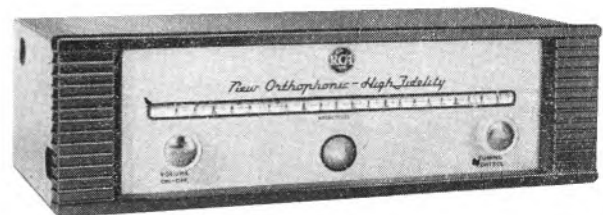
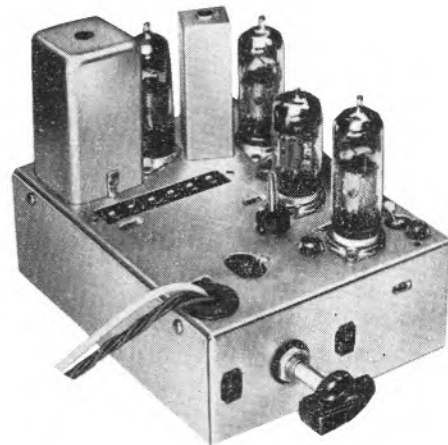
SOUND SALES

THE "A-Z" FM Unit, Mark III, employs a frequency lock AFC circuit which has the effect that, once the signal is initially tuned, this tuning holds constant so thoroughly that the tuning indicator is almost unnecessary.

TRUVOX

TRUVOX radio jacks are designed for use with tape recorders, and can be used also with any amplifier having a high impedance microphone input jack. They provide direct radio reception and enable tape recordings to be made from the programmes of selected stations. All that need be added is a simple aerial, and connection is made by plugging the jack into the recorder. The Standard Radio Jack operates in the medium waveband, and is despatched pre-set for Light and Home programmes in the London area. The Senior Radio Jack operates on any three pre-selected stations, two in the medium waveband and 1500 metres (Light Programme) for long wave reception.

(Continued on page 16)



Above—the moderately-priced Jason "Prefect" FM tuner

Below—the neatly-styled RCA New Orthophonic FM tuner

THE
SONOMAG PORTABLE



Offers the greatest value per pound spent. Incorporates the latest Collaro Mark III twin track, 3-speed deck, sockets for microphone and radio with mixing facilities, socket for external speaker, high-fidelity jack, etc. The price includes, spare reel, Collaro Studio microphone and 1,200ft. tape. Leaflet (or demonstration) on request.

Price 52 gns.

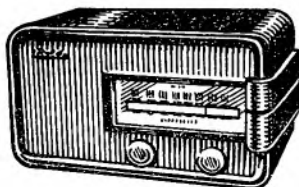
SONOMAG LTD 2 St. Michael's Road,
Stockwell, S.W.9
Telephone: BRI 5441

RECORDINGS FROM F.M.

No tape recordist should be without FM radio to make his own recordings. First class tapes can be made in this way with the greatest ease and simplicity. But, of course, the Tuner Unit must suit the recorder. We have many combinations of this sort and will be pleased to give you advice in your choice.

Among those stocked:

The Champion 835 FM/VHF Tuner (Illustrated) Covering 88/96 Mc/s, this unit enables the user of a tape recorder to receive the best in broadcasting both for listening and recording. Price 16½ gns.



An excellent new tuner has recently been introduced by 'Elizabethan'. This has been specially designed for use with Elizabethan Tape Recorders and gives first-class results. Price 24 gns.

A new microphone:

One of the most successful exhibits at this year's Audio Fair was the new Simon 'Cadenza' Ribbon Microphone. This is a really first-class instrument and is priced at 10 gns.

Tape Recorders, Microphones, Tapes, Speakers, Amplifiers, Gramophones, Records

If it's 'SOUND'—we have it!

QUALITY MART

8 Dartmouth Park Avenue, London, N.W. 5 GULiver 1131
Tufnell Park Underground (16 mins. Charing X.) or bus 27, 134, 137

REVIEW OF TUNERS

(Continued from page 15)

CHAMPION

MODEL 835 FM/VHF Adaptor, in a neat independent cabinet, is designed for instant conversion of existing equipment. The coverage is 88-96 Mc/s. There are only two connections, one to the AC mains supply and the other to the pick-up sockets.

PAMPHONIC

SEVERAL improvements are incorporated in the new Model 640 FM Tuner Unit, designed for use with any high fidelity amplifying system. It provides a coverage of 86-103 Mc/s, and close attention has been given to the achievement of maximum stability with the minimum of drift. With the exception of the tuning indicator, all the valves employed are of the same type, to simplify servicing and replacement.

DYNATRON

COVERAGE from 88-100 Mc/s with four pre-tuned circuits, automatic frequency corrector and single switch operation are features of the Dynatron VHF Tuner Unit. Two versions are available, one with an output of 0.2 V, and the other with an extra valve providing a variable audio output adjustable between 0.3 and 2 V RMS.



WATCH FOR THESE

The new Elizabethan Triple Three tape recorder, described on page 22 of this issue, which will be shown on Stand 9 together with the Elizabethan 56 and De Luxe models.

The new RCA 4-speed transcription deck for discs, on Stand 114, and wide range of RCA New Orthophonic equipment, including the Panoramic speaker system.

Centrepiece of the EMI Stand will be the largest reel of tape in the world—a giant replica twelve times actual size of a 5in. spool. It holds nearly six miles of 4in. wide Emitape, enough to carry nearly three weeks of non-stop recording if used at the "two tracks to a quarter-inch" standard of home recorders.

The initial model of the "Sound 777" tape recorder on the stand of Tape Recorders (Electronics) Ltd.—Stand 111. Also the new "Sound M.1." crystal microphone; "Sound" tape recorder; "Playtime Twin" record player, with an auto-change version; and a miniature record player.

The EAR Tape Recorder and Reproducer, fitted with the Collaro transcriptor deck. It is not expected to be available in the home market, however, until next year. Electric Audio Reproducers Ltd., will also be showing their new series of packaged amplifiers and high fidelity equipment. Stand 41.

The Collaro Mark IV Tape Transcriptor, on Stand 26, together with accessories such as the Collaro high fidelity microphone and jack plug and the Collaro high fidelity tape. The firm's famous gramophone units will also be worth studying, as well as the pre-amplifier, power pack and wired switches for the transcriptor.

The many items of high fidelity equipment produced by Whiteley Electrical Radio Co., Ltd. on Stand 65 and Demonstration Room D.23, which include the wide range of Stentorian speakers. Note especially the corner console cabinet incorporating the WB.HF.1012 unit, which lends itself well as a speaker for high quality reproduction from tape in the home.

From Germany comes
an important new
development—

TAPE AND DISC ON A SINGLE MACHINE



A general view of the Selectophon T5, with disc-playing attachments in place

THE first machine combining tape recorder/reproducer and three-speed record player is now available in this country. It is the Selectophon T5, manufactured in Western Germany, and selling here at 76 guineas.

A demonstration of the machine at TAPE RECORDING MAGAZINE offices showed it to be robust and versatile, with much ingenuity of design.

The tape is loaded in cassettes, shaped like books (they are called "tone books"), and operates in a continuous loop. It is 35 mm. (approx. 1½") wide and the recordings are made on 70 tracks arranged side by side, each 0.3 mm. wide.

The tracks are linked, so that continuous recording and playback is possible. With the largest available "tone book", it is thus possible to record continuously for six hours with normal speech, or for 2 hours 35 minutes with hi-fi music.

The machine is converted into a record player by dropping the hub of a small turntable into a socket and by plugging in a portable sapphire pick-up.

It is then possible to play 78, 45 and 33 rpm records and, if desired, to record them on the tape.

The machine can also be used as a public address amplifier or as an extension loudspeaker for a radio.

TAPE OUT OF SIGHT

The Selectophon T5 does not look like a tape recorder at first glance, for no spools or even tape are immediately visible. The tone book is laid on its side in a recess in the top of the machine. The loop of tape drawn out from one end is then dropped into a U-shaped channel in the casing which covers the recording/reproduction and erase heads.

When used as a record player this U-shaped channel is hidden beneath the turntable.

On the deck of the machine are five press-button controls, four round knobs arranged stacked in pairs, and two visual indicators.

The press-button switches provide for (1) switching off; (2) start/stop; (3) securing tape tension or, alternatively, playing discs; (4) reproducing from tape; (5) recording on tape.

The two stacked knobs on the left-hand side provide for volume control on the two inputs—one microphone and one radio—and one of them is also used for volume control when playing discs.

The two stacked knobs on the right-hand side provide for volume and tone on tape playback and for finding the exact spot required on the tape.

The visual indicators show recording level and position on tape.

The channels on the tape are known as "traces" and are

numbered from 1 to 70. The indicator shows on what number trace the machine is set at any particular moment. When in use, the heads are raised trace by trace from bottom to top of the tape as it passes.

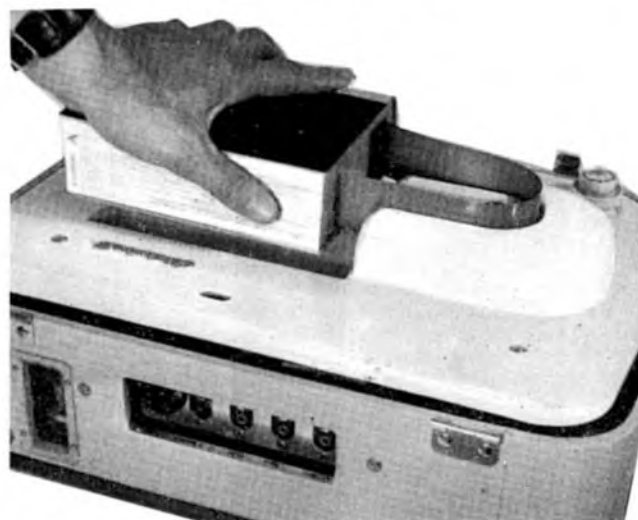
By starting each new recording at the beginning of a trace, it can be allocated its own special number in the index on the side of the tone book and can be found in a moment when required.

In order to provide three speeds for playing discs, it has been necessary to provide tape-movement speeds that are not standard. The 78 rpm disc speed gives a tape speed of 7½ ips; the 45 rpm disc speed gives a 4 9/16 ips with tape; and the 33 rpm disc speed gives 3½ ips with tape.

One difficulty, therefore is that the standard of reproduction when putting an L.P. disc on tape may be lower than the average hi-fi enthusiast will demand.

Because the tape is non-standard, there is no interchangeability with other types of tape recorders and therefore the Selectophon will not meet all the needs of those who indulge in tapespondence.

(Continued on page 18)



Loading the tape in the Selectophon. Input and Output sockets can be seen

NEWS FROM AMERICA

TAPE RECORDING MAGAZINE has now appointed an American representative. He is Mr. William Farquhar, who will operate from New York City. We shall publish his full address in our next issue.

Mr. Farquhar is an American who has lived in Britain until recently, and he has a wide knowledge of tape recording and an acquaintance with many leading figures in the trade both in Europe and America.

He will contribute regularly to our columns on tape recording developments on the other side of the Atlantic.

He will also represent this magazine there on the distribution and advertising sides. Fuller details will be published later.



WIRESPONDENCE PIONEERS

CONGRATULATIONS on your fine new magazine. I'm delighted that you're devoting some of your space to the exchange of tape recordings all over the world.

The Wireresponse Club was the very first organisation of magnetic recorder owners ever to come into existence. This was way back in May, 1950. Early in 1953, the Voiceresponse Club was formed as a direct descendent of the older club, under the sponsorship of John W. Schirmer, of Chicago, and Melva and Charles E. Owen, Jr., of Noel, Virginia.

In your March issue you had a story telling about World Tape Pals and in it "the beginning" of the hobby was put at November, 1952. By that time the Wireresponse Club—with some tape members—had been in operation for two-and-a-half years and the Tape Respondents International had been formed fully six months.

EARL R. SAVAGE,

Charlottesville, Virginia, U.S.A.

Analysing bird songs

I WANT to wish you well in promoting the noble cause of recording on tape. My latest interest is recording sounds with the aid of a 24 inch parabolic reflector. We live on a lake in the country, where birds and wild life are in abundance.

I had my recording equipment outdoors and had just completed taping the

songs of two birds. Without moving my equipment, I played back this tape by speaker. I was surprised when the two previously taped birds swooped near the tape recorder when they heard their own songs.

One little brown bird, with a long bill, perched on the recorder and listened with deep interest to his song. I now find that I can "call" these birds to me anytime I play this tape. I wonder if other tape fans have had similar experiences.

An interesting experiment is to record bird sounds at 15 i.p.s. and play back at 3½ i.p.s. In this way, their songs can be analysed. I discovered after taping a tree full of blackbirds that one bird out of the chirping flock had a definite and pleasing song. It could not be detected at regular tape speed. I do not know the explanation.

ED. BUSH.

Edinburg, Indiana, U.S.A.

SELECTOPHON

(Continued from page 17)

But, against these limitations, there must be set the unique versatility of the machine. The quality of reproduction is high: at the top speed, frequency response is quoted at 40 to 12,000 cps plus or minus 2db.

It is possible to mix recordings via the two inputs, as they have separate controls. Erasing facilities are provided.

The built-in speaker can be cut out and an external unit used instead.

The Selectophon is housed in an attractive olive green and cream carrying case, measures 18 x 13½ x 8", and weighs 30 lbs complete.

Three sizes of "tone books" are available. Book A, costing £3, provides recording times of 70, 120 and 150 minutes at the three different speeds; Book B, at £4 10s., provides 120, 208 and 278 minutes; and Book C, at £4 19s. provides 155, 269 and 360 minutes.

The machine is normally supplied with Book A and the price is then 76 guineas. The record-playing attachments cost an extra £6, and other additional equipment includes a directional microphone at eight guineas, a spherical microphone at six guineas, a phone adaptor at two guineas, and headphones at three and a half guineas.

The Selectophon is being handled in this country by Messrs Apparatus and Instrument Co. Ltd., Aico House, Vineyard Path, London, S.W.14.

GREAT.. WONDERFUL ..

ABOUT two weeks ago I received some copies of your very fine magazine. After reading it my comment is, in a few words; great, wonderful, fabulous.

I found all the items very helpful to me.

I am waiting in anticipation of another fine issue.

JAMES STERRETT.

Mount Pleasant,
Pennsylvania, U.S.A.

Canadian Compliments

I THINK you have a very good publication on the involved subject of tape recording. May I compliment you on the subject matter, and the way it is presented? I would like to wish you every success in the future.

ROBERT R. REED

Toronto, Ontario, Canada.

Good wishes from WTP President

I WAS particularly interested in your May editorial "The Budget and the Future." It revealed to me a deep insight by the writer into the things that go on in a tape recorder enthusiast's mind.

The article on sound effects proved most interesting. WTP operates a service known as WTP Sound Effects Library.

Several years ago we purchased a complete SE library and the recordings, not copyright, are transferred to members' tapes for a very small sum per record. It has proved very popular and is still going strong.

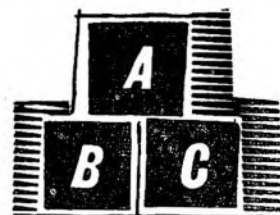
May I say your magazine reflects much research into the subject and I feel certain will be a boon to anyone who owns a recorder? May its future prosper and prosper!

Good luck to all those concerned. If I can be of any service to you at any time, please call on me.

HARRY MATTHEWS,

President, World Tape Pals.
Dallas, Texas, U.S.A.

The tape-enthusiast's



By ERIC LEWIS

(Sales Supervisor of the Magnetic Tapes Division of Minnesota Mining and Manufacturing Co. Ltd., the makers of "Scotch Boy" tapes)

Tape recording has given new meanings to many words in the English language. Numerous terms long used in the field of sound have become important to the tape recorder user. Here, in non-technical language, is a glossary of some of the most common words and phrases.

The second part will appear in the next issue.

A

ACETATE FILM: The super-smooth, transparent plastic film which forms the base for approximately 90 per cent of the magnetic recording tape made in the world today.

AUDIBLE TONES: Sounds with wave frequencies which the average human can hear and which range from 30 to 15,000 cycles per second.

AZIMUTH ADJUSTMENT: Method of adjusting the gap on the record playback head to a standard alignment in order to facilitate the interchangeability of recordings between machines.

B

BIAS: A high frequency alternating current fed into the recording circuit to eliminate distortion.

BINAURAL RECORDER: A tape recorder which employs two separate recording channels or systems, each with its own microphone, amplifier, recording and playback heads and earphones. Recordings using both systems are made simultaneously on a single magnetic tape on two parallel tracks, which, upon playback, reproduce the original sound with depth and realism unequalled by any other recording method. Use of headphones for listening is necessary for true binaural effect.

BULK ERASER: An AC mains device used to erase an entire reel of magnetic tape instantaneously without running it through a recorder. It uses a strong magnetic field which neutralises the magnetic patterns on the tape.

C

CAPSTAN: The spindle or shaft, often the motor shaft itself, which rotates against the tape, pulling it along at a constant speed on recording and playback.

CYCLES PER SECOND: The unit for measuring the frequency, or "pitch" of any sound. Abbreviated cps. or c/s.

D

DECIBEL: Abbreviated "dB," it is a relative measure of sound intensity or "volume." It expresses the ratio of one sound intensity to another. One dB is the smallest change in sound volume that the human ear can detect.

DECK: See *Motor Board*.

DISTORTION: Any difference between the original sound and that reproduced by a recording machine. Distortion takes on many forms, and although it can never be completely eliminated, it can be reduced to a minimum in a good recording and reproducing system. Tape offers the maximum potential in distortion-free recording.

DUAL TRACK RECORDER: Usually a tape recorder with a recording head that covers half of the tape width, making it

possible to record one track, then turn the reels over and record a second track in the opposite direction. Sometimes called a half-track recorder. On some modern machines a double set of heads are incorporated, avoiding the need for reels to be turned over.

DUPE: Sometimes called a "dub," or "dubbing." A copy of a tape recording made by recording on one machine what another machine is playing. Tape recordings are easy to duplicate simply by re-recording, and there is a minimum loss in quality from the original to the copy.

DYNAMIC RANGE: The ratio between the softest and loudest sounds a tape recorder or other device can reproduce, without undesirable distortion. Usually measured in dB's.

E

EDITING: Selecting certain sections of a tape recording, or of a number of different tape recordings, then splicing them together in the desired sequence. Magnetic tape is unsurpassed for editing purposes, since it can be easily cut and spliced.

ERASURE: Neutralising the magnetic pattern on tape by placing it in a strong, magnetic field, thereby removing the recorded sound from the tape. An "erase" head on the tape recorder does this automatically to any sound previously recorded on the tape just before the tape reaches the "record" head. A permanent magnet can also be used to erase magnetic tape.

EQUALISATION: Either boosting or decreasing the intensity of the low, middle or high frequencies in the recording or playback amplifier or both. This compensation is made automatically by the recorder and serves to correct any deficiencies in the recording system and to increase the signal-to-noise ratio. The standard equalisation adopted by the U.K. is to the recommendation of C.C.I.R. (International Radio Consultative Committee.)

F

FLAT RESPONSE: The ability of a sound system to reproduce all tones, low and high, in their proper proportion—amplified to the same extent—within the specified frequency range.

FLUTTER: Very short, rapid variations in tape speed causing similar variations in sound volume and pitch, not present in the original sound. A form of distortion.

FREQUENCY RANGE: The range between the highest and lowest pitched sounds which a tape recorder or other sound system can reproduce at a useable output, or volume, level.

FREQUENCY RESPONSE: The output level of a recorder or sound system over a given range of frequencies. A more specific term than "Frequency range." Usually in the form of a curve plotted on a chart.

G

GAIN: The ratio between the input level and the output level of a piece of sound equipment. Gain is increased by means of an amplifier.

GAP: The tiny distance between the poles of the recording head, measured in mils (0.001 in.). The head gap of home recorders may range from 1 mil down to $\frac{1}{4}$ mil. The smaller the gap, the higher the frequency response of the tape recorder can be.

H

HEAD: The ring-shaped electro-magnet across which the tape is drawn, and which magnetises the iron oxide-coated tape in a series of patterns. Most tape recorders employ a combination record-playback head and also an erase head. Some professional machines also employ a monitor head for listening to the recorded sound a split second after it has been put on the tape.

(Continued on page 20)

A Tape A.B.C.

(Continued from page 19)

I INDEX COUNTER: A counter which makes it possible to note the location of any particular section of a tape, thereby making it easier to find. Many late model tape recorders feature built-in index counters.

INSTRUMENTATION TAPE: Magnetic tape which has been specially manufactured under extra-carefully controlled conditions. For use where extreme uniformity and accuracy is demanded, such as in telemetry, data recording, computers, measuring equipment, automatic machine control, etc.

INPUT: An electrical voltage fed into an amplifier.

IPS: See *Tape Speed*.

L LEADER AND TIMING TAPE: Special, tough, non-magnetic tape which can be spliced to either end of a tape to prevent damage or breaking off of the magnetic tape ends and possible loss of part of the recorded material. Used as a timing tape, it can be spliced between musical selections on a tape providing a pause of a given number of seconds, depending on the tape speed.

LEVEL INDICATOR: A device on the tape recorder to indicate the level at which the recording is being made, and which serves as a warning against under-recording or over-recording. It may be a neon bulb, a "magic eye," or a V.U. meter (see below).

M MAGNETIC TAPE: A high-quality plastic tape which has been precision-coated by the manufacturer with a layer of magnetisable, iron oxide particles. The result is a recording media that is subject to virtually no wear, can be erased and re-used, and offers the highest fidelity of reproduction possible today.

MOTOR BOARD: Also called tape transport mechanism. The platform, or assembly, of a tape recorder on which the motor (or motors), the reels, the heads and the controls are mounted. It includes those parts of the recorder other than the amplifier, pre-amplifier, loudspeaker and case.

MAGIC EYE: An electronic indicator which by a change of shadow angle visually indicates the peak record level.

Introducing "The Tutor"

This new recorder, using the Mark IV Collaro tape deck with digital counter. Produced by the manufacturers of the well known "Tutor-Tapes."

Outside Measurements:
17½ × 15½ × 7½ in. including lid.

Output: 5½ watts.

Weight: 36 lbs.

In dual colours—Black and Grey, Maroon and Grey.

Inputs: High impedance microphone and high/low/impedance radio/gram.

Output: 3 ohm or 15 ohm (as ordered) for extension speaker, earphone monitoring.



PRICE 63gns.

complete with Collaro ceramic crystal microphone—and an elementary language course or alternatively an extra 1,200 ft. reel of tape.

A 10 watt Push Pull output model shortly available
Export and trade enquiries invited.

**Tutor-Tape
Company**

70, BREWER STREET, LONDON, W.1
Cables: TUTAPE, London - Telephone: GERrard 3376

National Tape Recording Contest

The programme —and the prizes

The programme for the first National Amateur Tape Recording Contest is now almost complete. And it is a programme that those who take part are not likely to forget.

These are the highlights:—

- * A special luncheon at London's Savoy Hotel, given by Electric and Musical Industries Ltd.
- * A conducted tour of the Hayes factory where the famous "Emitape" is manufactured.
- * A visit to the E.M.I. recording studios to see a professional star being recorded.
- * A big social gathering in the evening at the Cowdray Hall, in the West End, for the playing of the winning tapes, the presentation of prizes, and to meet the distinguished panel of judges.



For the winner of this first British contest the prize list grows. He or she is now assured of winning the following:—

The cash prize of £10 offered by TAPE RECORDING MAGAZINE, the sponsors of the Contest.

£10 worth of tape equipment, given by Messrs. Howard Photographic, of Bromley.

A MIC 39-1 pencil microphone, given by Messrs. Cosmocord.

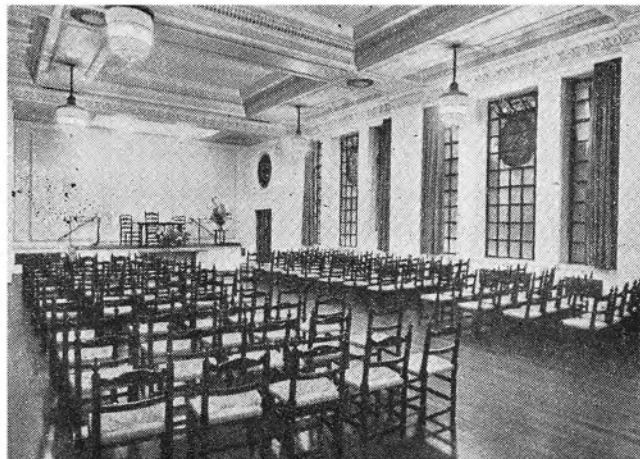
A special presentation album of photographs of the events detailed above, donated by Brian Worth, the well-known Fleet Street photographer.

A 7 inch spool of magnetic tape, given by the British Amateur Tape Recording Society plus membership privileges.

And, in addition, if the winner has used a Walter recorder, there will be a further £10 in cash given by Messrs. Walters Instruments.

The second prize-winner will receive a Lustraphone LFV/H59 pencil-type moving-coil microphone, given by Messrs. Lustraphone Ltd.

And for the winner, the runner-up and the next best five entries there will be presentation certificates.



The Cowdray Hall

THESE ARE THE JUDGES

TONY GIBSON



Tony Gibson is now a free-lance scriptwriter for B.B.C. programmes. For seven years he was associated with the famous "Younger Generation" programme of which he was the original producer. He has written and devised more than five hundred B.B.C. programmes including some of the earliest ever recorded outside of a studio on a tape recorder. He has had a great deal of experience of editing his own tapes.



JOSEPHINE DOUGLAS

Popular television star of "Six Five Special." Started at 14, writing and producing pantomimes. Won scholarship to RADA on leaving WRAF (in which she was a wireless mechanic). "Discovered" by Alfred Hitchcock and appeared in his film "Stage Fright," and later in many other films. Produced own shows in London, including "Cry The Beloved Country." TV panel member ("Find the Link") and regular participant in TV drama and women's programmes. Has produced such well-known programmes as "House Magazine," "Guess my story," and "Forces Requests."

ERIC SWAIN



Eric Swain, our Technical Advisory Editor, has been associated with electronics for over fifteen years. He served in the radar branch of the R.A.F. and spent some time at the telecommunications research establishment at Malvern. Since then he has worked on many aspects of electronics, both servicing and design. For the last eight years he has been lecturing on telecommunications and electronics.

AND NOW IS YOUR CHANCE

TO enter the first British Amateur Tape Recording Contest you have only to make a feature tape, not exceeding 15 minutes playing time, on the theme of "Summer 1957." Entries must be accompanied by the special entry form which is obtainable on application to TAPE RECORDING MAGAZINE, 426, Camden Road, London, N.7.

There is no entry fee. The closing date for receipt of tapes is Saturday, October 5, 1957.

In judging entries for this competition we shall give full weight to all relevant factors; for example, the fact that a recording made on a battery-operated portable includes a fuller range of effects than one made on a mains-operated model will not in itself be decisive. So every reader can enter this competition with a genuine chance of success.

The three judges will decide which is the best entry, which the second best, and will then select five runners-up. Their decisions will be communicated to the seven fortunate entrants as soon as possible, so that they will be able to arrange to come to London for the exciting programme detailed on the previous page.

This will be on Friday, October 25.

The winner's expenses will be paid, in addition to the various prizes he or she will receive. Winner and runners-up will be guests of Messrs. Electric and Musical Industries during the day. They will then attend the evening function at the Cowdray Hall for the actual presentation of prizes and the replay of their tapes. Refreshments will be served at reasonable prices.

To this function, leading figures in the

tape recording world are being invited. The three judges will be present. And every reader of TAPE RECORDING MAGAZINE has a chance to join in.

Applications for tickets should now be sent to "Contest Tickets," TAPE RECORDING MAGAZINE, 426, Camden Road, London, N.7. Please enclose a stamped addressed envelope for reply. Not more than four tickets can be supplied to any one reader.

Accommodation in the hall is limited and it must be a case of "first come, first served."

This first contest has proved to be a notable success and it is already clear that next year we shall be able to develop it into a much bigger affair. Those who want to take part in the pioneer event should apply for tickets now.



NEWS FROM MANUFACTURERS

SIX NEW MACHINES IN ONE MONTH

Never before has there been a month like the last one for tape recorders—six new machines have been announced. In several cases, they come from manufacturers new to the field.

One of them—the Sound 777—sets a new price standard, for it provides three speeds at only £42. This is being released at the Radio Show and full details will be published next month.

The Collaro is well to the fore in this new range, the other five models of which are described below.

ELIZABETHAN TRIPLE THREE

Three speakers, three speeds and three uses. These are the characteristics that led to the adoption of the name "Triple Three" for the new Elizabethan tape recorder, introduced by EAP (Tape Recorders) Ltd.

The three speakers comprise a base unit (9 in. by 5 in. elliptical) and two 3 in. moving coil tweeters. The three speeds are 3½, 7½ and 15 ips. The three uses are as a tape recorder, a tape reproducer and a high fidelity amplifier. The latter delivers 6 watts into a 15 ohm load.

The frequency response is given as 50-16,000 c/s at 15 ips, 50-12,000 c/s at 7½ ips, 50-7,000 c/s at 3½ ips, and 50-25,000 c/s when used as an amplifier.

The new Elizabethan "Triple Three"—three speakers, three speeds and three uses.



The Collaro deck is used. There are mixing facilities, a magic eye recording-level indicator, digit counter, and outputs for an external speaker (15 ohms) for monitoring and for feeding an external amplifier. The microphone supplied is the "Cadenza" ribbon, and also included are a radio/gram. connecting lead and 1,800 ft. of extended play tape. No price has yet been announced.

VERITONE

A detached speaker which can be played in position or extended on a long lead is one of the features of the Veritone.

It plays at 7½ and 3½ ips on twin tracks, and incorporates mixing facilities, with separate volume controls, for microphone and gramophone inputs. Another useful feature is a prominent warning light showing when the machine is switched to the recording position. The comprehensive control panel is neatly inserted in the front of the case.

The machine is compact (19¼ in. by 12¼ in. by 8 in.) and weighs 32 lbs. The 9 in. by 6 in. elliptical speaker comprises one end of the case when it is attached. Output is given as 3½ watts undistorted, and the frequency range as 50 c/s to 10 kc/s at 7½ ips. The price of the Veritone, complete with pencil microphone and tape is 53 guineas.

(Continued on opposite page)

TWIN SPEAKERS FULL RANGE SOUND



PORTABLE TAPE RECORDER BY MAGNAFON,
THE F.R.S.

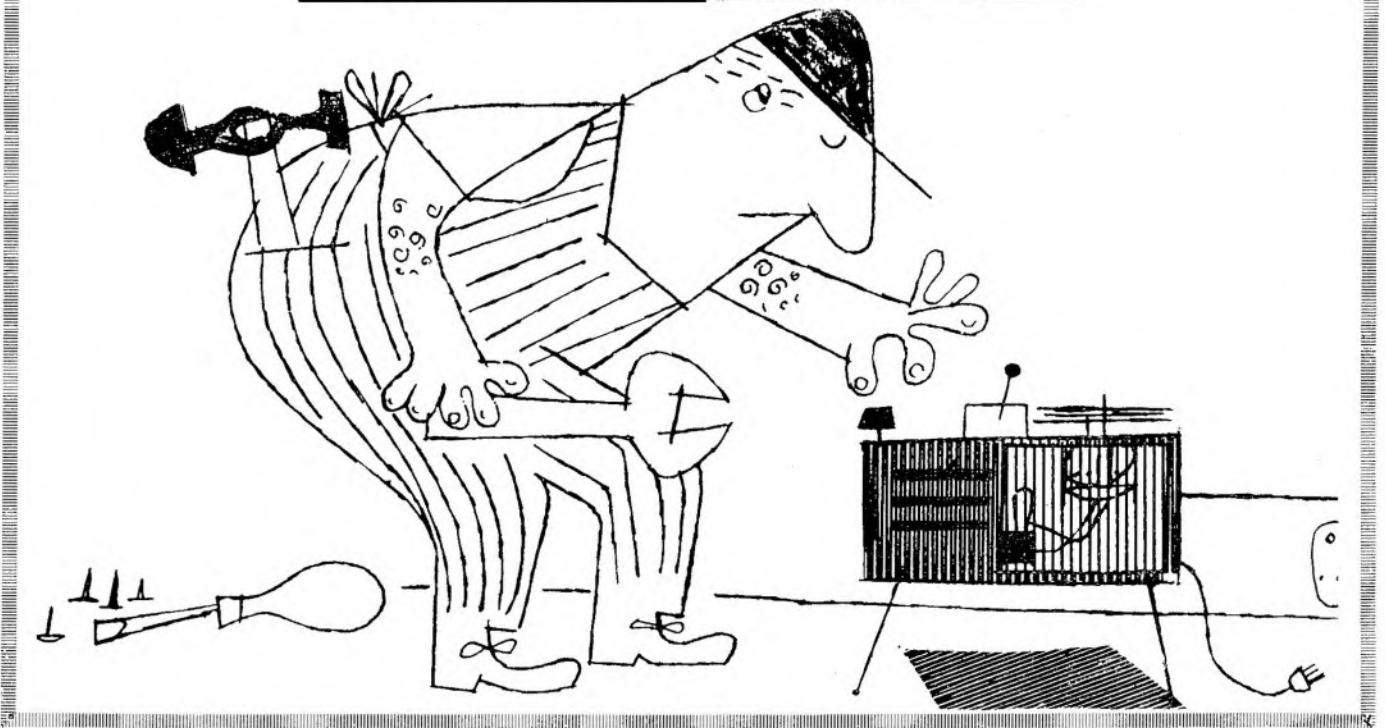
★ Linked speed equalisation. ★ Hi-fi outputs to amplifier and 15 ohm extension speaker. ★ Moving coil tweeter and 9" x 5" Elmag loudspeakers. **PRICE 55 gns.**

Write for leaflet and your nearest Dealer to:
**MAGNAFON LTD., 5, LONSDALE ROAD,
LONDON, W. 11. Telephone: PARK 1118**



The Veritone recorder

TAPE TITTER By ALASTAIR



THE NEW MACHINES

(Continued from previous page)

THE TUTOR

Produced by the manufacturers of "Tutor Tapes," the new "Tutor" tape recorder is a good-looking machine designed to do full justice to general recording and reproduction as well as to the company's language courses.

The Tutor uses the Mark IV Collaro tape deck with digital counter, and the Collaro ceramic crystal microphone. It has an output of 5½ watts and a connection for an extension speaker—3 ohm or 15 ohm according to requirements. There are also facilities for earphone monitoring. Inputs are available for high impedance microphone and high/low impedance radio-gram. A 10 watt push-pull output model will be available shortly.

The outside measurements of the Tutor, including the detachable lid, are 17¼ x 15¼ x 7½ inches, and the colour scheme is black and grey or maroon and grey.

The price of £66 3s. includes one of the Tutor Tape Company's elementary language courses.

MAGNAFON

Twin speakers are a feature of the new Magnafon F.R.S. tape recorder, a high efficiency 9 x 5 Elmag and a 4-inch moving coil tweeter. The amplifier provides a four watt output with negative feedback. There is a 15 ohm extension socket with automatic internal muting.

The Collaro tape transcriptor deck is employed, with digital counter, giving the usual three-speed facilities. A base cut tone control is effective on playback.

With Studio microphone and tape, the price is 55 guineas, complete.

BAIRD

The Collaro deck appears again in the new Baird recorder. The output of the machine is given as about 3 W. undistorted. Indication of control settings is by illuminated shadowgraph scales.

Recording from radio and gramophone is direct to tape, and there is provision for microphone superimposition.

Weight is about 44 lbs. Price is 62 guineas, complete with microphone and tape.

Simon changes

The Harland Engineering Co., Ltd. and Harland Drives Ltd. have acquired a controlling interest in Simon Equipment Ltd., and Mr. L. Spiro and Mr. F. H. Maddox have joined their Board of Directors. The merger follows collaboration between the companies in the development and application of electronic equipment to specialist industrial electric drives.

REV. COUNTER FOR WEARITE

Facilities for incorporating precision indexing in older pattern Wearite tape decks are now provided by Wright and Weaire Ltd. in the form of a special kit.

The indication is registered on a clock face which is scaled from 0-10, in tenths, by a pair of hands, so that a total count of 1,000 is available.

The dial mechanism is driven from the take-up motor via an intermediate pulley and two short belts. This keeps the belt drives clear of the other deck parts and, by inverting the pulley a different gear ratio is provided, catering for the thinner tapes now available. The whole length of an 8½in. reel can be represented by a complete count of 1,000 units. Return to zero is affected by a knob at the centre of the dial.

All Wearite tape decks to which it may be required to fit a counter fall into one of three categories; clear instructions, and a template, are provided with the kit to cover each category. Escutcheons are either black or cream.

The price of the complete kit is £3 3s. 0d.

The Nagra

THE Nagra portable tape recorder mentioned in our columns recently by Mr. Alan Lomax is made by Stefan Kudelski, Prilly-Lausanne, Switzerland.

SOUND AND CINE COLUMN

by John Aldred



Standard tape—or magnetic stripe?

HOME movie enthusiasts have the choice of two types of magnetic recording when adding sound to their films. In addition to the standard $\frac{1}{4}$ in. tape, it is possible to have a magnetic coating or stripe applied direct to the base of the film. At first sight, this would seem a complete answer for amateur sound films; but in practice there are pro's and con's for stripe and tape. So let us examine each medium in turn.

When you have edited your film and checked all the joins, you are in a position to have it coated with a magnetic stripe by Zonal Facilities Ltd., The Tower, Hammersmith, or N. V. Setrac, 14-18, Ham Yard, Piccadilly Circus, London, W.1, at a cost of 1½d. per foot for all three film gauges. The stripe can be applied either to the base or emulsion side of the film, the standard being the side which faces the projector lamp.

Both 8mm. and 9.5mm. have an edge stripe 30 mil. wide, the 8mm. stripe being accommodated between the edge of the film and the perforations.

Sixteen-millimetre film can have three widths of stripe: edge (30 mil.), half (50 mil.), and full (100 mil.).

Edge stripe is used only for silent films carrying a double set of perforation. Half stripe is designed for use on an existing sound film when it is desirable to alter an existing photographic track by re-recording and perhaps adding a different commentary. Full stripe is used for a completely new sound track on single perforated film. 16mm. at twenty-four frames per second gives a linear speed of 7.2 inches.

When using 8mm., your camera speed will probably

be 16 frames per second, for economy reasons. This gives a linear speed of only 2.4 inches, so obviously reproduction is going to suffer.

It is not possible to record and play back magnetic stripe on an ordinary tape recorder; a new magnetic sound head is required for your cine projector. These are obtainable for most makes of machines, 8mm., 9.5 or 16mm., and sold complete with an amplifier which provides mixing facilities for microphone and disc. The speaker is separate for placing near your screen.

Some of these attachments are fitted above the projector and others below, so there is no standard interval between a frame of picture and its corresponding sound. A recording made on one brand of equipment can be way out of sync when played back on another. But there is now a proposed standard for 16mm. magnetic: that sound shall precede picture by 28 frames. Most recording projectors have this interval.

The obvious advantage of magnetic stripe may be summed up: "once in sync, always in sync."



Possession of a tape recorder will probably sway you in favour of using it with your cine projector. I have already mentioned methods of synchronising the two machines (May issue). For a simple sound track consisting of commentary and music the stroboscope method is quite suitable and also inexpensive. By using separate machines for sound and picture all speed problems are solved. You can operate your recorder at 3½, 7½ or 15 inches per second, and obtain the very best sound quality, regardless of whether your film was photographed at 16 or 24 frames per second. This is a distinct advantage to 8mm. users.

Running costs are less than magnetic stripe, too. 600 ft. of $\frac{1}{4}$ in. tape costs £1 1s., runs for 15 minutes at 7½ inches, and can accommodate sound for two 200 ft. 8 mm. films, one on each half-track. Magnetic stripe would cost £1 5s. for each 200 ft. Should you wish to lend your film to friends, or borrow one of theirs, it is not necessary for you both to own exactly the same equipment.

To obtain perfect sync between tape and film, it is essential to use a synchronising attachment to control your projector speed. It is then possible to reproduce your sound in exactly the same sync as you obtained during recording. The manufacturers claim an accuracy of 100 per cent, which means that $\frac{1}{4}$ in. tape can give as good a degree of sync as magnetic stripe.

You can also use a combination of both mediums. When operating single-handed, it is sometimes convenient to record your musical background on to $\frac{1}{4}$ in. tape first. Then re-record this tape on to magnetic stripe (or another $\frac{1}{4}$ in. tape), at the same time adding your commentary. There is endless opportunity for experiment and there is room for both $\frac{1}{4}$ in. tape and magnetic stripe.

MAGNETIC STRIPE EQUIPMENT

ATTACHMENTS

		£	s.	d.
Aurator	9.5mm. ..	57	0	0
	16mm. ..	60	0	0
Cirse Vox	8mm. ..	61	19	0
	16mm. ..	75	0	0
Paterson	8mm. ..	75	0	0
	16mm. ..	131	5	0

PROJECTORS

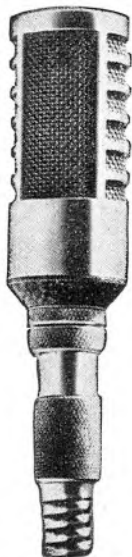
Cometson	8mm. ..	135	0	0
Ampro	16mm. ..	420	0	0
B.T.H.	16mm. ..	360	0	0
G. B. Bell & Howell	16mm. ..	355	0	0
Pathoscope	9.5mm. ..	190	0	0
	16mm. ..	363	0	0
Siemens	16mm. ..	325	0	0

M8 RIBBON MICROPHONE

A high quality microphone with good output size only 1⅝ x 3⅝, with inbuilt transformer.

Mounted by three-pin plug and socket on flexible fitting with internal leads. The ribbon, although extremely thin, is secure against reasonable acoustic shock.

Usual output impedance 30 ohms. Other impedances available. Three Alcomax III magnets, Treble stainless steel protecting gauzes.



We also manufacture microphone stands, dynamic microphones, pressure loudspeaker units, straight and re-entrant horns.

FILM INDUSTRIES LTD.

90 Belsize Lane, N.W.3

HAMpstead 9632-3 Telegrams: Troosound, Haver

NEWS FROM THE CLUBS

ROGER ASLIN has been elected BATRS London postal area representative. The by-election took place this month. John Weil was election officer, assisted by A. Woodhouse. It was conducted according to the Society's rules.

There is a vacancy on the Council for a Scottish secretary, the present officer having retired. Scottish members; Nominations please to head office at Chester.

Group Scoutmaster Arthur Merriman of Tape Respondents International, c/o Box 27 P.O., Noble Park, Victoria, Australia is anxious to exchange Scout recordings with a recorder owner living near Sutton Park or enjoying scouting in Warwickshire. Good recordings will be broadcast throughout Australia.

WO II F. A. Stevenson of the BFPO (Tripoli) asks members and readers to contact him regarding Christmas recordings for the forces in BAOR and BFPO.

Snapshot Competition. Have you sent in your snaps yet? It is still not too late.



NATIONAL Tape Recording Competition. All members are asked to support this in the interests of the Society. John Amphlett has agreed to represent the Society at the final session.

Remember the Society's Blind and Hospital services. Secretary/Editor of the Blind service is Eric Payne, 43 Hanworth Road, Earlswood, Redhill, Surrey and the Hospital Service Secretary Alan Lovell, 12 Longmore Road, Ashton, Bristol, 3. Help for either service is always needed.

— NEW BATRS MEMBERS THIS MONTH —

The following new members have joined the BATRS in the past month. Membership numbers are given first, followed by names and addresses, ages in brackets, then recorder speeds, lastly members two major interests, coded.

MO/0232/T. Edward H. Foss, Jr., 3536 Raymar Blvd, Cincinnati 8, Ohio, U.S.A. (19), 7½ and 3½. 671-891. (Amateur Radio.)

G-0233/T. Jack L. Beaumont, 70 Cowlersley Lane, Huddersfield, Yorks. (39), 7½ and 3½. 67/50-88b.e.g.

GM-0234/T. John R. Murray, 3 Bankhead Ave., Lesmahagow, Lanarkshire, Scotland. (31), 3½ only. Bird study. 102.

G-0235/T. Percy Ashdown, 35 Ridgeway Drive, Lydiate, Lancs. (67), 7½ ips only.

MO/0236/T. James F. Clark, 426-68th Street, Brooklyn 20, N.Y., U.S.A. (18), 7½ and 3½. 11-Music, pop.

G-0237/T. Ronald N. Edwards, 139 Prince of Wales Rd., Kentish Town, London, N.W.5. (23), 15, 7½ and 3½. 8-40. Motor racing.

G-0238/T. Mervyn C. Clarke, 2 Shenley Rd., Dartford, Kent. (31), 3½ only. 3-74a,d. Photography.

G-0239/T. Harry E. Beach, 15 Clent Rd., Rubery, Birmingham. (31), 3½ only. 5.38,40.

G-0240/T. Miss Dorothy A. Stewart, 87 South Hill Rd., Shortlands, Bromley, Kent. (19), 29a-44.

G-0241/T. Kenneth V. Hall, 3 Springwood Rd., Oakwood, Leeds 8. (27), 7½ and 3½. Dixieland-Pop-Photography.

GM-1004/T. William Green, 452 Hulburn St., Aberdeen, Scotland. (51), 7½ and 3½. 89h, 88.

G-0242/T. Miss Esme Burrough, 516 Upper Brentwood Rd., Gidea Park, Essex. (21), 3½ only. 67,b,c,i,l, 69.

G-0243/T. Allan Stableford, 9 Norman Terrace, London, E. 16. (33), 7½ and 3½. 74.4.

G-0244/T. James Cohen, 24 Orton Rd., Newcastle, Staffs. (35), 7½ and 4.8 ips. 88cef, 48f.

G-0245/T. Roy Duffield, 33 Sheaf St., Sheffield 2. (33), 7½ and 3½. 74b and sound strip.

G-0246/T. Stanley D. Blanchard, Bridlington Rd., Driffield, Yorkshire. (58), 3½ and 7½ ips. Ornamental turning—radio/TV.

G-0247/T. Michael Lees, 106 King Edward Rd., Hyde, Cheshire. (18), 3½ ips only. 67-88a,b,c,d, e,f,g,h.

G-0248/T. Ken Simmonite, 44 Cambrai Cres., Winton, Eccles, Lancs. (31), 3½ ips only. 67h-98a-107. Calypso lyric writing.

G-0249/T. Mrs. M. Hazlehurst, 22 Chapel Lane, Allerton, Bradford, Yorks. (Over 21), 15, 7½ and 3½. 8mm cine-film, class. music, blind and hosp. service.

G-0250/T. William V. R. Court, Plymouth Arms Hotel, Stratford-on-Avon, Warwick. (35), 15, 7½ and 3½. 67g,f, 8.50.

GM-0251/T. George H. Latus, 16 Valleyfield St., Edinburgh 3. (42), 7½ only. Stamp collecting, Hill Billy-Calypso, etc.

Elizabethan products are built to professional standards for commercial use. That is why Elizabethan is unrivalled for quality, style and reproduction.



ELIZABETHAN 56
2 speed, 3½ watts output.
Complete with microphone
and L.P. Tape 52 gns.

Elizabethan

a leading name in the world of sound



ELIZABETHAN F.M. TUNER
Range 85-101 Mc/s
Self-powered 24 gns.

ELIZABETHAN DE LUXE
3 Speed, 6 watts output.
Complete with microphone
and L.P. Tape 65 gns.



Meet us on Stand No. 9 at the
Radio Show, Earls Court, and see the
brilliant new 'ESSEX' Tape Recorder

Elizabethan



(TAPE RECORDERS) LTD.

T A P E R E C O R D E R S
DHB/5718

Bridge Close, Oldchurch Road, Romford, Essex.



In this feature every month you can check

YOUR LOCAL DEALER

JOHN SHINN & SONS LTD.

Electronic Engineers

TOWN CENTRE, LEIGH, LANCS.

Also at MELODY HOUSE, 109 HIGH STREET, BANGOR, N. WALES

and MELODY HOUSE, 43, HALLGATE, TOWN CENTRE, WIGAN, LANCS.

Pioneers in Tape Recorders since 1946

All customers are made honorary members of the John Shinn Recording Club, with its attendant benefits

In the dark?

... regarding **TAPE EQUIPMENT?**

Why not avail yourself of the higher standard of technical service offered by Dept. T.R.

NORTHERN RADIO SERVICES

11, Kings College Road, London, N.W.3 Phone: PRI 3314

We will supply and advise on all worthwhile Recorders, Decks, Tape Amplifiers, Pre-amplifiers and associated High Fidelity equipment.

OF SPECIAL INTEREST

Our own 'SYMPHONY' de luxe Tape Recorder at 52 gns.

IN STOCK NOW

The Collaro latest Mark IV Tape Transcriber with Rev. Counter at £22. The Collaro Tape Pre-amplifier to match at £21.

Send two 2½d. stamps for our Bargain Catalogue

"TAPE RECORDERS ONLY"

ALL POPULAR MAKES, CASH OR TERMS

Specialists in GRUNDIG and Service and Guarantee implemented without return to the manufacturers.

TAPES Service spares

DIXON'S ELECTRONICS

227 OXFORD ROAD, MANCHESTER, 13

(Telephone: ARDwick 4269)

TAPE RECORDER HIRE SERVICE

Magnagraph (Dept. TR)

1 Hanway Place,

London, W.1.

Tel.:

LANgham

2156

TAPE TO DISC SERVICE STD & LP

News from the Clubs

TAPE BANKS FOR WTP

WORK has begun on the establishment of *World Tapes for Education*, Tape Banks in England, Australia, New Zealand, South Africa, and either Holland or Germany. The WTE Tape Bank now contains 24 programmes of educational value, and a copy of each of these will be placed in each tape bank so that WTE members all over the world may secure the use of this service without weeks of waiting for tapes, or the expense of airmail postage.

The tapes in the WTE Tape Bank are available to teachers and student members of WTP, and also to other members who wish to use them for groups, such as youth organisations, at no charge other than postage. The tapes remain the property of the WTE Tape Bank, and are to be returned after they have been used.

World Tape Pals members are urged to make available to the bank tapes of an educational nature which are of general interest. Tapes made by school classes are most popular with listeners, especially if the programmes contain folk music of the region where the tape was made.

Contributions of tape to help establish the branch tape banks as quickly as possible are greatly needed. Tape contributions should be sent to WTP Headquarters, Box 9211, Dallas, Texas, U.S.A.



NAMES of over 2,100 tape recording enthusiasts in 56 countries are contained in the 1957 Membership Roster recently published by World Tape Pals. Membership in England and Scotland has jumped by 162 in the past year and now totals over 300. Containing 100 pages, this new Roster is bound in a heavy, durable cover with the WTP emblem lithographed on the front. Every member will be receiving a copy. It was due to be sent with the current issue of *Tape Topics* towards the end of July.

Next month

TAPE AT THE PARTY

Ideas for the Winter Season



AN A.B.C. OF TAPE

A glossary of technical terms

continued



AND SUCH POPULAR FEATURES AS

Tape in the Classroom—Another medium priced recorder reviewed—Advice Bureau—Homo Tapiens column—Tape Titter—News from Manufacturers and from the clubs



Although we have increased the size of this issue, a number of items have had to be held over and these will appear next month

WORLD TAPE PALS
 Incorporated
 Headquarters: P.O. Box 9211,
 Dallas 15, Texas, U.S.A.
 A Non-Profit Educational
 Organisation for the exchange
 of Recorded Tapes
 Details from
ROGER D. SMALLWOOD,
 28, Wrekin Road,
 Sutton Coldfield,
 Warwickshire.

B.A.T.R.S.
 (The Incorporated British Amateur
 Tape Recording Society—British
 Tape Pals)
 Personal membership 17s. 6d.
 for 1957. Affiliated member-
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