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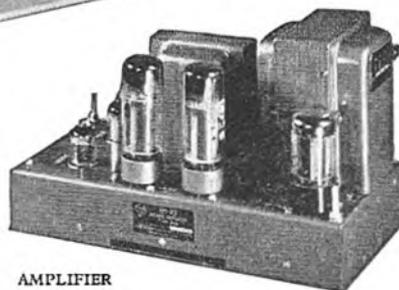
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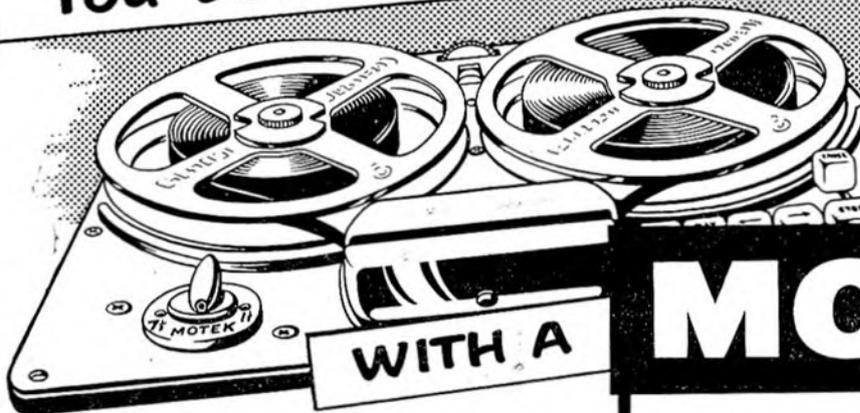
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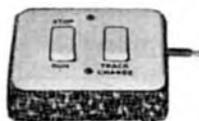


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TAPE RECORDS

S U P P L E M E N T

THE CLASSICS

by Edward Greenfield

(recorded music critic of the *Manchester Guardian*)

WHY is it that Beecham has been able to conduct so few opera performances in this country since the war? Here is a conductor who did more perhaps to foster the present enthusiasm here for opera than any other, yet all plans for him to conduct again at Covent Garden or to make a first appearance at Glyndebourne seem never to come to anything. Sir Thomas is willing, our operatic powers—that-be seem only too happy; it is odd—and frustrating—that nothing ever comes of it.

At least the record companies have had more success. The very quality of Beecham's complete operatic performances on records make one realise bitterly just what we are missing in the opera-house. In whatever medium—recordings, broadcasts, or live performances—I sincerely hope we shall have more Beecham performances of Mozart operas in particular.

Happily, Beecham's wonderful recording of "Il Seraglio" has been made available on three stereo tapes (Columbia BTA 119-21)). Here in a Mozart opera, even more than in a Mozart orchestral work, one feels the benefit of Beecham's sensitive handling. On stylistic grounds there are reasons why a purist might object to Beecham's easing of phrases and subtle changes of speed in a Mozart symphony; but here the added sympathy for the shape of phrase, throughout this recording, inspires the singers to performances of a depth and insight well beyond their usual powers.

Eric Blom, among others, has pointed out that "Il Seraglio"—or, more correctly, "Die Entführung aus dem Serail"—should be thought of as an operetta rather than a full-scale opera. He even draws the parallel of Sullivan's operettas of a hundred years later. Like Sullivan's, Mozart's arias and duets are strung together comparatively loosely, with passages of spoken dialogue separating them. Though one or two of the arias—notably the heroine, Constanze's "Marten aller Arten"—have a heroic quality in expression and sheer size which transcends the conventions of operetta, Mozart makes the scale of the work plain from the finale of Act 3 which in French style includes a doggerel refrain for the ensemble after each paragraph.

I feel tempted to start drawing comparisons between Mozart's Turkish-ry and Sullivan's Japaneserie, between the entry of the Pasha in Act 1 (a tingling performance from the Beecham Choral Society this) and the entry of the Lord High Executioner in "The Mikado", and so on. The important point is that "Il Seraglio" is not something

(Continued on page 12)

What ? ? Where

What type of Tape Recorder, among all the machines now on the market, should I buy? What are the various characteristics, for instance, of a Telefunken 75/15 or a Grundig TK25, a Tandberg Model 5 or a Reflectograph 750 and other recommended machines?

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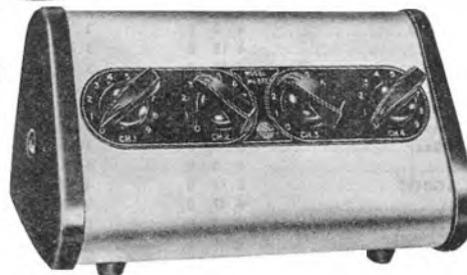
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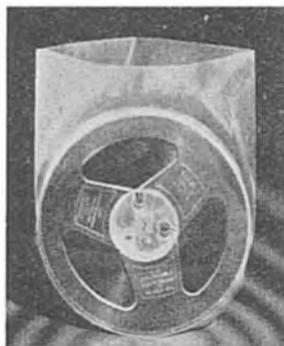
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(Continued from page 11)

to take ponderously and Beecham, more than any conductor I have known, appreciates this with a warm-hearted, lively approach which yet draws out the inner emotion.

It is an object lesson in interpretation to compare Beecham's phrasing in any one of the numbers in this opera with that of any other conductor. Take the hero Belmonte's charming aria, "O wie ängstlich." It begins with Belmonte softly calling out the name of the heroine Constanze, and each time the oboe echoes the rising phrase. There is an indescribable depth given to the passage by the way Leopold Simoneau, the tenor, and the R.P.O.'s oboist phrase the notes, and that phrasing is clearly Beecham's inspiration. Then in the next bars the trotting rhythm, instead of sounding incongruous and stiff, has a lift to it which points the subtle change of mood—Belmonte's anxiety not to be taken too seriously—in a moment.

One could go on indefinitely pointing out such felicities. Vocally Simoneau is as satisfying a Belmonte as one is likely to come across these days, and Gerhard Unger, the second tenor, copes with almost equal ease with the roulades and runs which bedevil their parts. But it is Gottlob Frick, as the Pasha's villainous major-domo, Osmin, who provides the most outstanding singing on the set. Osmin is the only really original character in the opera. The others are comparatively conventional—even the second soprano, the English maid, Blonde. But on Osmin depends the success of the opera as a dramatic piece, and Frick not only sings with a clean precision comparatively rare in German basses but with a fine dramatic bite which provides just the right edge to what can seem too easy a plot. His furious aria "Ha! wie will ich triumphieren!" is wonderfully incisive.

The two women are not quite so happy as this. All the parts in this opera have notorious vocal traps—that is one of the reasons it has not achieved greater popularity—and the heroine has two arias which are as difficult as any in the Mozart repertory. "Traurigkeit" demands controlled soft singing over long phrases, while "Maten aller Arten" is a bravura show-piece in which not only great power is demanded but the sort of flexibility in coloratura which marks the equally fearsome part of the Queen of Night in the "Magic Flute." Beecham's Constanze, Lois Marshall, is not ideally suited to the part—but who is today?—and too often her top notes have a hard, uneven sound which suggests an imperfectly controlled vibrato. But Marshall, like the other singers, takes inspiration from Beecham in phrasing and shaping most sympathetically. Similarly, the Blonde of Ilse Hollweg has vocal imperfections—the voice is not happy in its lowest register—but the characterisation of this pert maid is excellent. The Beecham Choral Society and the Royal Philharmonic Orchestra are, needless to say, excellent.

On stereo tape the set is even more impressive than on disc. Columbia does not seem to have produced the opera with elaborate stage movements and the like, as it did for the stereo "Rosenkavalier", but the interspersing of selected passages of spoken dialogue between the numbers effectively ensures that the impression of a dramatic entertainment, rather than an oratorio, is conveyed. Three tapes to contain what was squeezed on to two discs may seem extravagant, but in fact the playing time is close on two hours, which would have been just that bit too long for two stereo tapes. As it is, each Act is neatly fitted on to one tape.

E.M.I. Records Ltd., 36, Oxford Street, London W.1

BEAT AND OFF-BEAT

by **Don Wedge**

(of "New Musical Express")

WHEN the news of Louis Armstrong's illness first came in, my immediate reaction was of incredulity. It was quite unbelievable that such an effervescent personality could ever have a heart attack or succumb to pneumonia.

He leads an amazingly active life for a man of 60. Having followed a hectic career for 40 years, it would probably be wrong for him to stop suddenly.

To the constant pattern of touring, the last decade has added air travel, with all the strain that involves. His collapse in Italy came after a flight from New York to Rome.

The thought that it had been brought about, at least in part, by years of blowing that soaring trumpet was inescapable. Perhaps we were to hear it no longer—except on record.

I blessed records.

Armstrong's position in the world of jazz and popular music is pre-eminent. No one can begin to rival him in importance over the years. He is among the greatest of jazzmen, and although he was hardly the originator of the style, he was born and brought up among those who were.

His value has not only been as a musician, but as an entertainer, too. Because of this he has been able to communicate with many who cannot take jazz in virgin form. Despite his clowning, his refusal to take anything too seriously, Louis' heart has always been with jazz.

What is there of him available on tape? Only, I fear, "Ella and Louis" (HMV HTD 816). This couples him with other artists as superb in their own fields as he is in his—Ella Fitzgerald and the Oscar Peterson Trio, with drummer Buddy Rich.

The record was made in America two years ago by Norman Granz—who has previously been praised here for being the outstanding jazz impresario of the day—and is undoubtedly a classic. The tape version is part of a two-volume disc LP set, which is also issued here by HMV.

The success of this was so great that another set of two LPs, called "Ella and Louis Again," was made, and is available on disc. Parts of this may yet be issued on tape.

Armstrong has not always chosen the best material to work with. Sometimes he has even been bogged down with heavenly strings and choirs. His own group, which he calls the All-Stars, are always overshadowed by him.

On this record, his material is drawn from the finest songs pop music has produced. That, of course, means they are the sort that crop up too frequently in this type of album. We must accept that they are unavoidably over-played.

Only one number can be excused on these grounds—"Under a Blanket of Blue," which, if not exactly new, is heard infrequently enough to be almost a discovery.

In charge of the backing is a genius of a pianist—Oscar Peterson. He is probably the finest soloist alive, yet here he sits out of the limelight to inspire a remarkable accompaniment.

The pattern of this particular embroidery is elaborate yet

(Continued on page 14)

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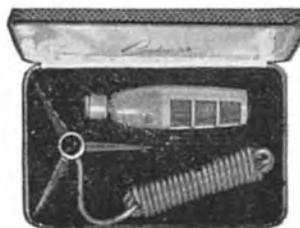
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subdued, driving yet unobtrusive. His principal aide is guitarist Herb Ellis, with Ray Brown (bass) and drummer Rich completing the group. Not a lot of musicians to complement the singers. But Louis and Ella are so competent that they can do without a huge band.

Most of the numbers are slow, the others slowish. Yet the quartet and the principals manage to make them swing. It is the essential ingredient—the catalyst that makes the disc so remarkable. "It don't mean a thing if it ain't got that swing," would be true in this case.

Ella Fitzgerald needs to play second to nobody. She is so adaptable, so wide-ranging in scope that she copes admirably with the personality-plus of Armstrong, even taking time to guy him.

The fruity fullness of her voice, like a rich, sweet, rare wine, contrasts with the near clowning of Satchmo's singing. Ella cannot resist a joke, musical or otherwise. Louis cannot stop joking except when he plays trumpet. His singing is rarely soulful, though his playing often is.

The general routine on each of the numbers is for Ella to take the first chorus, Louis to sing the second and play the third, with both combining at the end. Sometimes his muted horn punctuates her phrases, while Ella's humming rounds-out Louis' inventive brasswork.

"Can't We Be Friends" is the first track, a humorous choice for beginning such a successful partnership. "Nearness of You" is remarkably long, but possibly the most enjoyable. They end with "April in Paris," which Ella has done so many times, in so many ways (backed by the Count Basie Band is her best version).

The other numbers are "Isn't This a Lovely Day," "Moonlight in Vermont," "They Can't Take That Away From Me," "A Foggy Day," and "Cheek to Cheek." Not many numbers for a long record. But each is extensive to make the whole very worthwhile.

* * *

"Rock Island Line" turned Lonnie Donegan into a star, from being just the banjoist in the Chris Barber Band. It was a folk song that had been around a long time. Donegan had been performing many months before an executive at Decca actually did "just happen to hear it."

He thought it might become popular. He was right. Many more than a million people throughout the world bought copies. Different versions were also made, including one (for Capitol) by Stan Freberg, probably the finest satirist recording.

Another is included on "The Tarriers," released in Britain by Columbia as a tape record (CDT 870). Folk songs are not so frequently heard now as three years ago, but they are unlikely to die with groups like this around.

The Tarriers were formed by Erik Darling in 1956. He had gone to his big city, New York, and met a bunch of folk fanatics. Bob Carey and Alan Arkin were two of them, and they joined Darling in forming the group.

Soon they were recording and backed a man called Vince Martin who had a hit with "Cindy, Oh Cindy." Very soon afterwards they wrote "The Banana Boat Song," which gave them another hit. Harry Belafonte also did well with it.

The tape includes neither composition. It consists of a wide variety of folk songs—some well known, some fresh. All are delightfully melodic.

Both "Ella and Louis" and "The Tarriers" are available only as monaural tapes.

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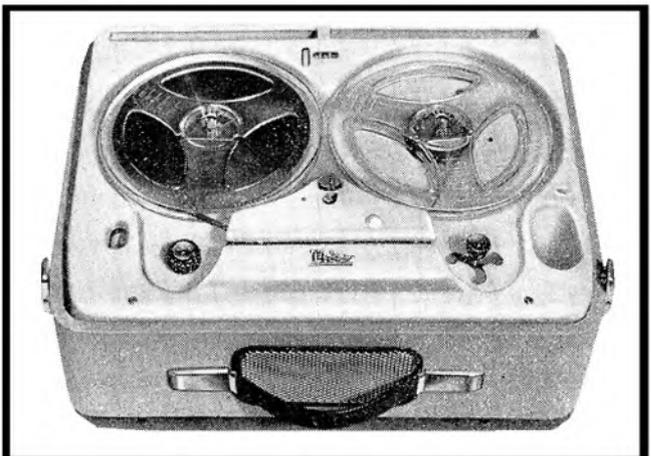
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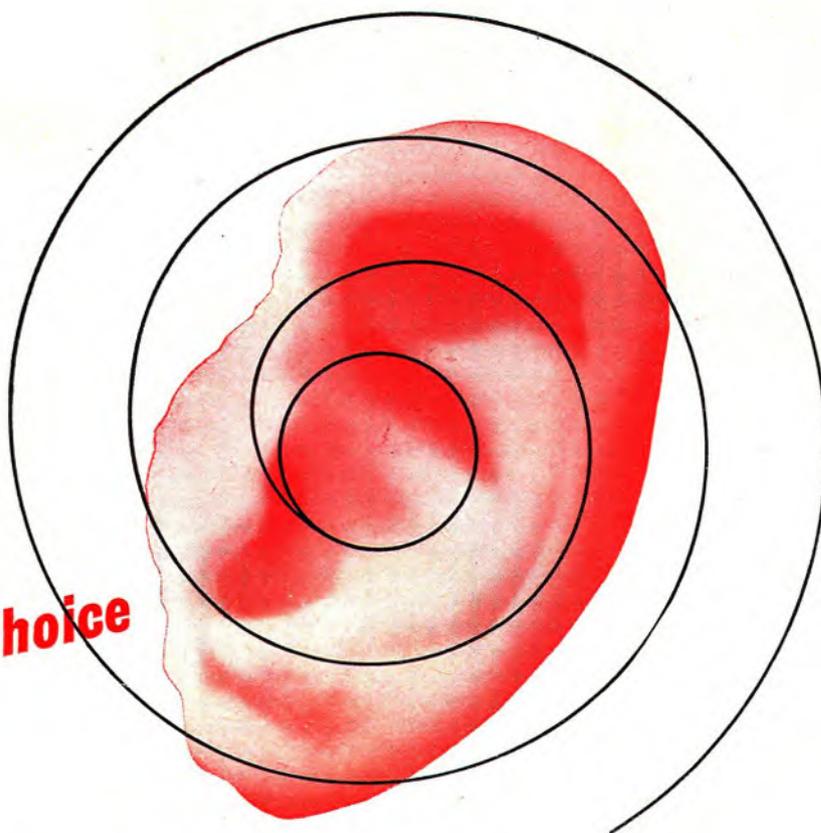
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A DIGEST OF

NEWS, COMMENT AND

EDITORIAL OPINION

THE B.B.C. Network Three programme "Sound," which is now having a summer rest, will be back on the air in the autumn and we hear of quite exciting plans for the new series. One of the events to be featured will, of course, be the International Recording Contest, which takes place in London in October.

When the "Sound" programme was introduced it was guaranteed a run of only three months. But its immediate success, and particularly the exceptional listener reaction, quickly guaranteed it a permanent place on the air. This is, of course, a considerable tribute to the team which launched it, particularly to Mrs. Marguerite Cutforth, the producer.

She has been advised and assisted by a panel of senior B.B.C. technicians.

Many enquiries have come from abroad and in this country the programme has evolved into a kind of club. Listeners write about technical problems, production techniques and artistic aspects; they include barristers and farmers, physicists and hairdressers. And radio clubs in schools and youth groups are also regularly in touch.

In short, this programme has already proved its value to a wide listening audience, who have reacted with ready enthusiasm and loyalty. We hope it will return with renewed vigour, and for a long stay.

Tape at sea and work-bench

CANNED entertainment on tape is now developing rapidly. I see that one big firm that has supplied films to Merchant Navy crews is now introducing a service of recorded tapes. They work on an all-in rental basis, covering hire of recorders and of a regular supply of tapes. Tapes are loaned for a month or so, and a world-wide distributive machine arranges the regular exchanges.

The new service will have a great advantage over radio, the value of which is greatly reduced by atmospheric crackle and the unsuitable times of broadcasts (from the ship's point of view).

Another firm is rapidly developing a service of taped music for factories, hotels and restaurants. Here again, the recorder and a regularly-changed supply of tapes is supplied for an annual rental. The promoters of this scheme cite a case in which output increased by 11.3 per cent when the taped music was laid on.

The Times Review of Industry, apparently apprehensive, has commented: "Apart from the dubious economic

We take the view .

efficacy of this service, the wider social implications of this manifestation of the Admass mentality should not be overlooked."

Spreading Happiness

THE London Tape Recording Club sends a story of a very human episode in which tape played a role. Mr. Ken Blake, one of its members, and his wife have been exchanging tapes for some time with an American lady. As the contact developed, it became obvious that she was lonely and, in reply to questions, she revealed that her husband was in a mental home and her marriage in difficulties.

But then came a tape on which happiness shone through, and this, Mr. Blake took to the London Club to play. It explained that she was now free to marry again and that she was engaged to an Englishman whom she had never met but whom she had grown to know by exchange of tapes.

"How excited she seemed, and how happy we all felt for her," Mr. Blake says of the Club meeting at which the tape was played. "We devoted the rest of the evening to making a greetings tape from the Club. Wedding music was played on a piano, while members of the Club were introduced and wished her happiness. It ended with singing 'For they are jolly good fellows'."

U.S. Trends

THE latest news from the United States shows a hardening of opinion there that the future of stereo lies with four-track tapes recorded at $7\frac{1}{2}$ ips.

A dozen recorder manufacturers have switched to four-track design and about the same number of firms marketing pre-recorded tapes. Already several hundred titles are available in this form and, now the policy has been settled, vigorous action will bring 1,500 tapes on to the market before the end of the year.

Reports on the American experience may help British manufacturers to make up their minds on future policy. One of them, we believe, has long had in mind four-track at $7\frac{1}{2}$ ips as the ultimate, but there has been so much talk of acceptable quality at $3\frac{3}{4}$ ips and of the advantages of cassettes that the man in the street has found it difficult to assess the probabilities.

American firms going in for the new four-track items will continue to produce two-track versions. There are an estimated 600,000 two-channel stereo playback decks in use in America.

But most manufacturers are now preparing conversion kits and the enthusiast will be able to convert existing stereo machines for about £10. The four-track machines, incidentally, will handle two-channel tapes as well.

Tape Advantages

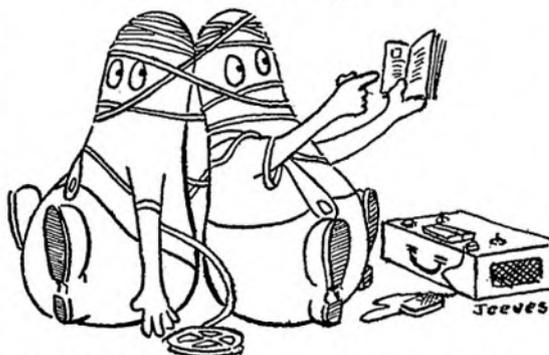
I HAVE recently had an interesting discussion about tape records with Mr. W. H. Barrington-Coupe, of Saga Records.

"There is a tremendous potential in the tape record and without a doubt tape has many advantages over disc," he said. "Perhaps the main advantage is in its wider dynamic range and inherently lower noise level.

"If reasonably handled, these advantages are maintained without deterioration over a far longer period than is possible with a disc.

"The advantages of using a tape speed of $7\frac{1}{2}$ ips are simply the frequency range and signal-to-noise ratio attainable. Modern tape players have a useful response at $7\frac{1}{2}$ ips extending from 15,000 down to 50 cps, with a signal-to-noise ratio in the region of 45 to 50 dB.

LAUGH WITH JEEVES



"But it distinctly says here—'Make quite certain that the tape is in contact with both heads'"

"At $3\frac{3}{4}$ ips, the frequency range is limited to something in the region of 7,500 cps, and the signal to noise ratio in the region of 40 to 45 dB.

"The quality of tapes at the slower speed will no doubt gradually be improved, but in the meantime the higher speed definitely results in a superior performance.

"For the connoisseur, with first-class equipment throughout, there can be no doubt that tapes at $7\frac{1}{2}$ ips produce a truly amazing effect of realism, particularly in stereophonic form.

"But it is natural that some of the lower-priced recorders are not capable of the performance of their more expensive brothers and for the layman who has equipped himself for a comparatively modest sum the new $3\frac{3}{4}$ ips tapes will be a boon."

Collecting dialects

MR. ROY PENFOLD, of 48, Holbrook Lane, Coventry, is anxious to compile a tape collection of the dialects of the British Isles. This should be a fascinating exercise and the resulting collection should be of considerable value in many fields. Those who may like to co-operate with Mr. Penfold are invited to contact him direct. He is prepared to provide the necessary tape for volunteers. The recordings will be made at $3\frac{3}{4}$ ips.

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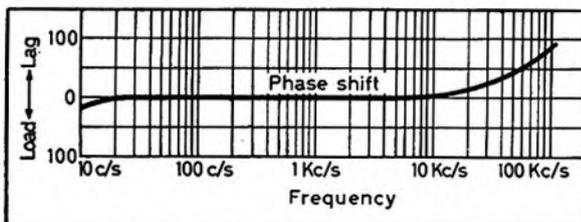
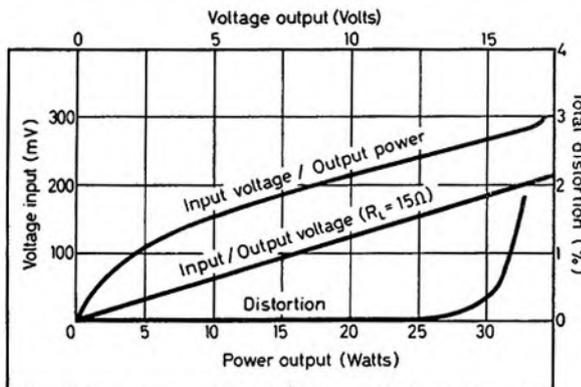
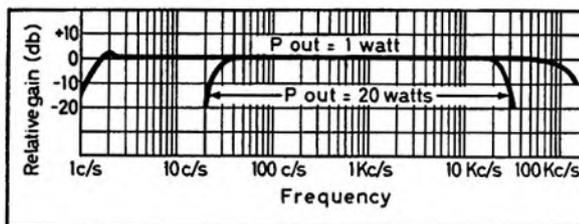
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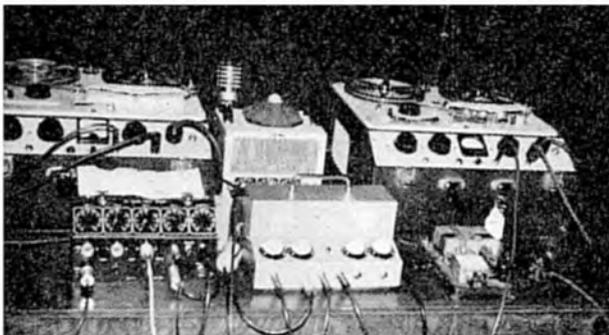
Telegrams Hibeam Wesdo London



Last month we described how special programmes on tape are bringing enjoyment to the blind. This article reveals how a group of enthusiasts in London is using tape to provide entertainment for patients in hospitals.

ENTERTAINMENT on tape for HOSPITAL PATIENTS

The photograph above shows the members of the group described in this article, and that below gives an idea of the equipment they use



THOSE hospitals without radio or television—and there are some without even a record player, have come to welcome and appreciate the small groups of tape recording enthusiasts who, of their own free will and at their own expense, provide recorded programmes for hospitals.

One of the most ardent of these groups is led by Mr. J. Hunter, who became interested in recording as an extension of his first and major hobby as a radio transmitting amateur.

Shortly after the war, he constructed his own recorder, and later the purchase of a Ferroglyph led to the realisation that more useful things could be achieved than just recording the voices of the family and radio programmes. Through an advertisement in *Tape Recording Magazine*, contact was made with Mr. Alan Lovell, of the British Tape Recording Society, who provided information about the hospitals' needs and the B.T.R.S. effort to find voluntary workers to provide this service.

The first problem for Mr. Hunter was—where could one gather together the necessary artistes in order to make the recordings?

Here Mr. Stan Keen comes into the picture. He is now Mr. Hunter's right-hand man and a great friend and helper, doing much of the work behind the scenes. Through him they were, and still are, able to use the Civic Theatre of the London Borough of Poplar, with full co-operation from the Mayor and Borough Council.

A group of three artistes led by Mr. Keen provided material for the first tape recording to go out to needy hospitals; but the best-laid schemes sometimes go wrong, and the trio had to disband.

Finally, through the Entertainments Manager of a local newspaper, new artistes were located, willing to give their services free. A quartet, led by Don Whiteman, was soon augmented by a trio of vocalists and numerous other artistes who helped from time to time, including a brilliant young accordionist, 13-year-old Keith Nicholls, who has performed with the B.B.C.'s Jimmy Edwards Show, and is frequently to be seen on I.T.V.



In the early days, Mr. Hunter did all his own recording, but he now has the assistance of two other enthusiasts. With two Ferroglyph recorders, they have produced some very fine half-hour programmes, which are distributed to hospitals all over the country.

Recently thirty hospitals were making full use of light entertainment, and religious programmes from the groups, sponsored by the B.T.R.S. More groups are needed to cope with increasing demands, but hospital authorities wishing to avail themselves of this service are more than welcome.

The two Ferroglyph recorders, with suitable mixing equipment and five or six ribbon microphones, are used for most programmes; balancing and monitoring are carried out via loudspeakers in an ante-room off stage. Programmes and recordings are directed by Mr. Hunter, all the recording being carried out by Mr. John Lepper and Mr. Noel Ta'Bois, who are also radio transmitting amateurs of the East London Group, and keen tape recordists as well. Considerable experience has been gained in the art of recording, and editing and the making of copy tapes, all of which work is carried out by the group.

On average, two half-hour programmes are produced every month and they are usually issued on 1,200 ft. spools of tape. Up to the present, most of the tape used by Mr. Hunter and his colleagues has been supplied through the B.T.R.S. The cost of maintaining the supply of tapes is becoming a difficult problem, however, and help in this direction would be welcomed most sincerely.—F. C. J.

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TECHNICAL SPECIFICATIONS

Mains Voltage: AC only 200-250v. Consumption: 70w. Tape Speeds: 3½ips and 7½ips. Frequency Response: 40c/s-14kc/s at 7½ips. Inputs to Record/Playback Amplifier: Microphone socket—2mV; Radio socket 300mV. Speakers: Large elliptical speaker and 4" tweeter. Power Output: 4w. Signal/Noise Ratio: Better than—40dB. Dimensions: 16½" × 12½" × 8". Weight: 23lbs.

MODEL 505 57gms

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COPY- RIGHT

THE FEDERATION ACTS

The Federation of British Tape Recording Clubs, at its annual general meeting in Coventry recently, fully discussed the latest situation on copyright.

It was resolved that the officials of the Federation would now take up the negotiations with the Mechanical-Copyright Protection Society. The committee has been given full power to act, but affiliated clubs will be kept informed, and we hope to publish detailed information in *Tape Recording Magazine*.

The position of the B.B.C.

IN previous articles on copyright, we have several times referred to the statement published in the past by the British Broadcasting Corporation. We understand from the B.B.C. Solicitor that he does not think we have adequately explained the scope of this statement. While we feel that, if our articles are taken as a whole, there should be no misunderstanding, we are anxious to leave no room for doubt.

First, therefore, we should like to reprint the B.B.C. statement in full. It reads:—

THE COPYRIGHT ACT, 1956, came into force on June 1, 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 or record 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 sound or television broadcast before such material is recorded, filmed, or performed in public (whether the audience pays or not). The consent of any dramatic or musical performers taking part in a broadcast must also be obtained for the recording or filming of their performances, otherwise than for private and domestic use.

This notice, we understand, was primarily intended to bring to the notice of readers of the *Radio Times* the rights conferred on the Corporation under Section 14 of the Copyright Act, 1956. But it also reminded readers that:—

1. Under the Act, permission must also be obtained from the owners of any copyright material used in such broadcasts before such material is recorded, e.g., so as to cover the "copyright in the

actual music itself," to which we have referred in previous articles.

2. Under the Dramatic and Musical Performers' Protection Act, 1958, the consent of certain artists, i.e., any dramatic or musical performers taking part in a broadcast, must also be obtained before the recording or filming of their performances, otherwise than for private and domestic use.

It is only in connection with the permission required from certain artists, referred to under (2) above, that the B.B.C. has stated in the notice that the recording of programmes "for private and domestic use" is permissible.

The B.B.C. notice must not be taken to suggest that the recording of copyright works is permissible for private and domestic use.

It is, as we hope readers will have understood from our earlier articles, precisely in order to cover the copyright in such works that the negotiations with the Mechanical-Copyright Protection Society are now going forward.



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		£ s. d.	£ s. d.
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Elizabethan Escort	45	6 5 0	3 8 4
Saja Standard	45	6 5 0	3 8 4
Verdik S1	45	6 5 0	3 8 4
Elektron	47½	6 17 6	3 12 2
Wyndson Viscount	49	6 19 0	3 14 2
Spectone 161 (Ex Tape)	49	6 19 0	3 14 2
Grundig TK20	52	7 0 0	3 19 4
Dulci-Harting Deck* (with pre-amp)	55	7 5 0	4 3 4
Elpico	55	7 5 0	4 3 4
Telefunken 75KB (with microphone)	56	7 6 0	4 5 10
Brenell 3 Star	58	7 10 0	4 9 0
Veritone Portable	58	7 10 0	4 9 0
Saja Export	59	7 19 0	4 10 0
Truvox R2	59	7 19 0	4 10 0
Grundig TK25	62	8 2 0	4 15 0
Telefunken Deck*	63	8 3 0	4 16 8
Philips B108	63	8 3 0	4 16 8
Elizabethan Essex*	65	8 5 0	5 0 0
Veritone Venus*	66	8 9 0	5 2 6
Brenell Mk. V (with microphone)	69	8 11 0	5 5 6
Stuzzi Magnette	69	8 11 0	5 5 6
Grundig TK30*	72	9 12 0	5 10 0
Telefunken 85*	75	9 15 0	5 15 0
Harting HM5*	82	10 12 0	6 5 8
Grundig TK35*	82	10 12 0	6 5 8
Sabafon Automatic*	89	13 9 0	6 13 4
Simon*	95	14 15 0	7 1 8
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Our readers' views

During the last few months we have received a large number of letters from readers about copyright problems. Now that the situation has clarified a little, we print a selection of extracts from representative letters

Mr. F. C. Gazeley, of Beckenham, Kent, drew attention to the attitude of some music publishers to amateur recording. For a long time he recorded amateur productions in Middlesex to secure linking music for a tape magazine which he edits. Then, moving to a new district, he found that, though the local societies were anxious to co-operate, they were forbidden to do so.

The music publishers had put a clause in their licence to produce which forbade any recording.

"I myself would agree," writes Mr. Gazeley, "that every tape recording club should be able to pay a reasonable fee to cover all its members for purely amateur recording. We do not want something for nothing.

"Lots of us have no desire to copy professional recordings, but to go out and do our own recording with microphones. For this I am prepared to pay a reasonable fee.

"And, after all, what commercial value could an amateur recording of an amateur performance have?"

Most readers who sent in their views were favourably disposed towards some form of licensing.

Mr. D. E. Coates, of Thetford, Norfolk wrote: "I, for one, would be only too pleased to buy a licence enabling me to use my tape recorder at ease and with no fear of breaking the law."

Mr. B. M. M. Hardisty wrote from **Cambridge University**: "I should be extremely reluctant to forgo the privilege and pleasure of using my tape recorder for playing back music recorded from the radio. I would willingly pay a respectable annual licence fee, to be distributed mainly presumably through the Musicians' Union to its members, but also perhaps to the recording companies. I would not want to join a tape recording club in order to be legalised collectively, but would be quite happy to pay directly to the Mechanical Copyright Protection Society or similar body, or through a government agency or department if such were to be created through suitable Parliamentary legislation."

Mr. E. E. Payne, of Redhill, Surrey, wrote: "Frankly, I feel the problem is exaggerated. The medium puts the tape recordist in a unique position: not only

can he record material from radio, disc and pre-recorded tapes, as it is available to him, but also—despite the fact that it may be illegal—he can in ten seconds, with the aid of a bulk eraser, obliterate all evidence for ever.

"And you cannot convict without evidence. . . ."

Mr. Peter D. Turner, of Stroud, Glos. took a rather different view. "Apart from authorising some snoopers from the Ministry of Love, as Orwell called it, to enter my home and monitor my recordings, there is no way by which anyone can tell what private recordings I make and use," he wrote.

"Therefore, most people will get away with recording from the radio, whatever the rules may be. But ought our consciences to rest content with getting away with it?"

"I know that I should be happier if I were able to pay an annual (or once-for-all) fee entitling me to record from broadcasts."

Mr. E. G. Cocks, of High Wycombe, Bucks., voiced an apprehension that may be widespread. "I am interested in tape recording privately and have no intention of joining a club," he wrote.

"Personally I would have no objection to paying some fee (reasonable, of course) for the right to record in my own home, for my own pleasure.

"But what happens to us all when we are 'recorded' in someone's books, in say five years' time, when tape recording could well be on the way to surpassing disc recording? It would be very easy for the fee to be increased to very high levels to make up the losses elsewhere.

"Would it not be possible to have this fee, when and if agreed, pegged for a period of, say, five years?"

Mr. E. J. Noble, of Muswell Hill, N.10, on the other hand, favoured a much more generous response by tape recordists—an annual licence of, say, 10s., plus a once-for-all levy on each machine sold. But he advanced this as an alternative to a club licensing scheme, which he dismissed because it left out of consideration the thousands of owners who are not club members.

As a complete contrast, **Mr. Dave Wiseman, of Acton, W.3,** wrote: "The big boys make quite enough, without getting their hooks on my recorders, too. I, and my friends, have decided that, as we have paid quite enough for our equipment and radio licences, we are certainly not paying any more money out to anyone—and that's flat!

"We are going to record what we like, when we like, where we like. If the companies want to nail us for it, then they've got to get inside our homes to prove it. That could be just a little more than they could handle, actually."

Well, well. It is obvious that our readers have lively views on this subject.

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▪ If you can hear it — We can record it! ▪

Another article in our special series explaining simply the scientific basis of recording

by our Technical Advisory Editor
CHARLES LANGTON A.M.Brit.I.R.E., A.M.Inst.E.

VALVES, or "tubes" as our American cousins call them, form the heart of the electronic section of a tape recorder. It is true that valves are being replaced gradually by transistors, but these will not be universal for many years to come.

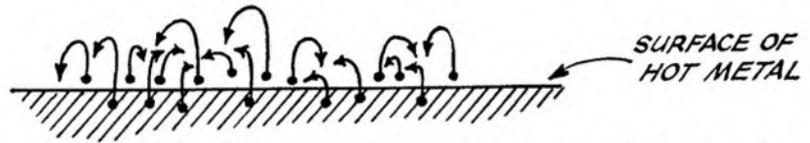
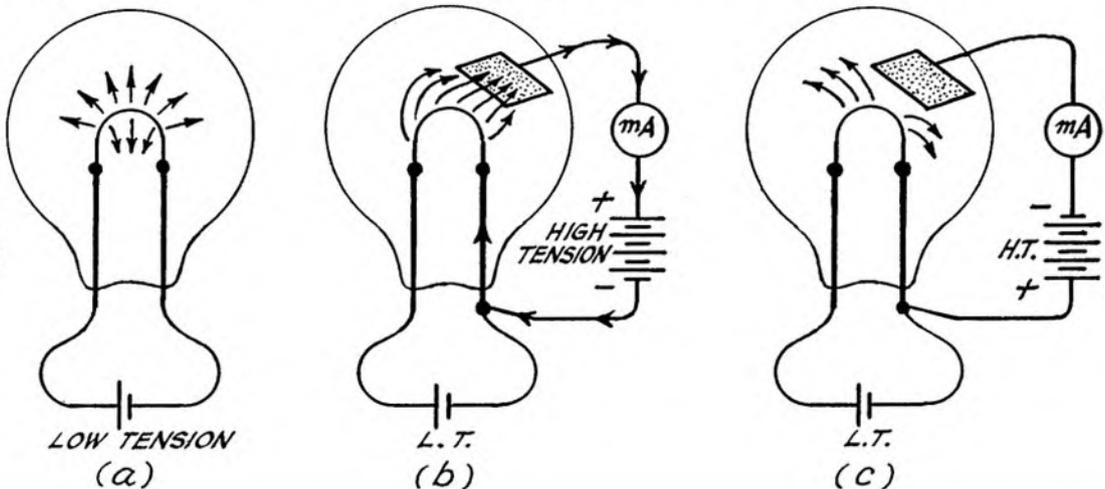


Fig. 1: Electrons being emitted from the surface of hot metal

The basic principle of all valves used in tape recorders and amplifiers is that when a metal is heated, *electrons* are thrown off its surface. The hotter the metal, the more vigorous will this activity become. In the normal course of events, however, each electron will return to the metal, just as a tennis ball, thrown into the air, returns to the ground (Fig. 1).

Fig 2: (a) Electrons emitted from hot-filament, (b) Electrons attracted to positive plate. Note electron flow in external circuit. (c) Plate now negative, and electrons are repelled. Meter now reads zero.



STEREO QUIZ

- Q. Do you have to sit on the centre line between the speakers in order to obtain a stereophonic effect?
- A. *Not if your speakers are properly arranged. You must experiment with the distance between speakers and the angle at which they are beamed.*
- Q. How do you find out about all these things?
- A. *By studying 'Stereo Sound and Music Magazine' regularly.*
- Q. How do you make sure of getting a copy every month?
- A. *By placing an order with your newsagent.*

VALVES

This effect may be proved by collecting the electrons on a metal plate situated a short distance away from a heated wire. As the presence of air or gas will impede the movement of electrons, the space between the wire and the plate must be highly evacuated. Thus the experiment was first carried out using an ordinary evacuated electric lamp, but having a metal plate fitted within the glass bulb (Fig. 2). A wire leads out from the plate and is connected to one terminal of a high-tension battery (H.T.). A meter is connected in series to measure the current, if any.

The amazing fact is that, when the H.T. is connected with its positive to the plate, and negative to filament (Fig. 2b), the meter indicates that a current is flowing round the circuit. This is so, despite the fact that there is a gap between filament and plate across which the current must

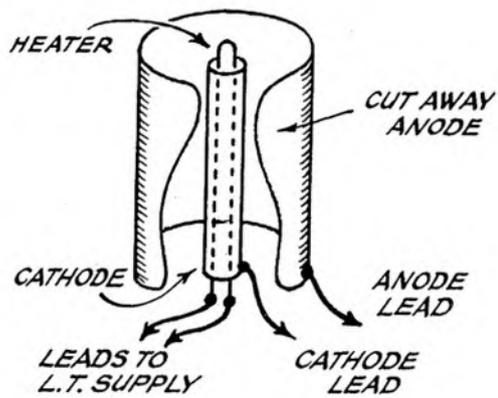


Fig. 3: Internal section of a diode

the name *diode*. The filament, which emits the electrons, is called the cathode, while, in this country, the plate is called the anode. Usually, the anode is box shaped or cylindrical so as to completely enclose the cathode (Fig. 3).

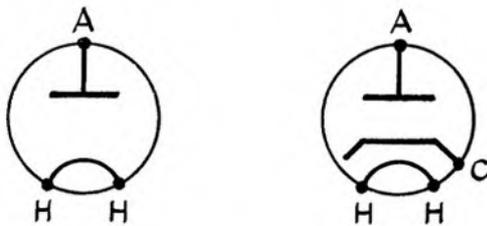
The cathode, for its part, may be as already described (i.e., combined with the filament), in which case the valve is said to be *directly heated*. More often, however, the cathode is a separate tube of nickel, inside which the filament or "heater" is fitted. Such a cathode is said to be *indirectly heated*, and the heater should be well insulated from the inside walls of the cathode tube. To facilitate an adequate electron emission, the outside surface of the tube is coated with a special oxide.

In general, indirectly heated valves are used in mains operated equipment (where the heater supply is A.C.), and directly heated valves used in battery portables.

It will be appreciated that the most important feature of a diode is that it will allow current to flow through in *one direction only*. This "one way" feature enables the diode to be used as a rectifier of alternating current, and so diodes are widely used in H.T. power packs, where it is necessary to change the incoming A.C. mains into D.C.

Fig. 5 shows the circuit of a half-wave rectifier, suitable for supplying 200-250 volts H.T. for a small amplifier, control unit or tuner unit. A 6.3 volt winding on the transformer will supply A.C. to the valve heaters.

An improved circuit uses two diodes or one double-diode in a bi-phase or full-wave circuit. This is to be recommended for serious work, and is shown in Fig. 6.



(a) Directly heated. (b) indirectly heated
H=heater connection. A=anode connection. C=cathode connection

Fig. 4: Theoretical symbols for a diode

pass. However, if the H.T. battery is now reversed so that the negative is connected to plate and positive to filament, the meter indicates zero.

As current only flows when the filament is hot, it suggests that the hot filament emits charged particles, and that as they are attracted to a positive plate and repelled from a negative plate, the particles must be negatively charged. They are, in fact, electrons, and this experiment proves that electricity flows through conductors in the form of electrons travelling from negative to positive, in contradiction of the old conventional theory.

Such a device as is described above is the simplest valve, and because it contains two elements or electrodes it bears

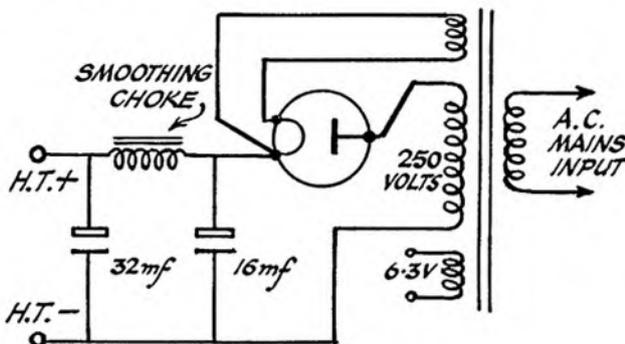


Fig. 5: Half-wave rectifier

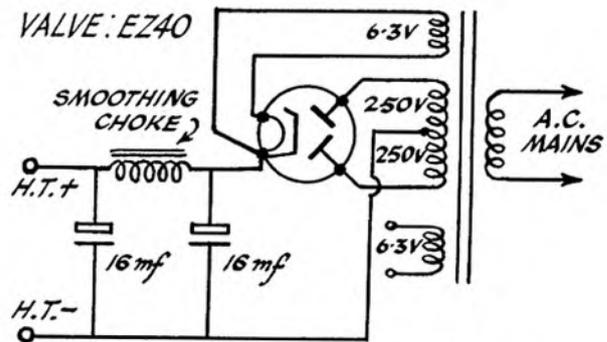


Fig. 6: Full-wave rectifier, using a double-diode

TESTED IN THE LAB



THE firm of Grundig has added yet another *coup de main* to its already long list. The TK55 should be worthy of serious consideration by the tape recording enthusiast who has stereo in mind as a future addition to a hi-fi monaural system, since this recorder is fitted with a standard in-line stereo head and complete pre-amplifier for stereo reproduction of pre-recorded tapes.

As a single channel tape recorder, however, it possesses features and facilities which should delight even the most ardent tape recordist. But first, for the non-technical reader, let me say that it is a recorder that requires no complicated operation and is capable of first-class recording from microphone, radio or other signal sources.

If you want to superimpose your voice on to a musical item, there is a button for doing it; if you want to connect the recorder to an external hi-fi amplifier, it can be done; an extension speaker socket is also provided, and you can record from a telephone with a special adaptor. The frequency response is more than adequate for fidelity reproduction; wow and flutter are practically non-existent, and the same applies to hum and noise. These three points are probably the most essential requirements in any reproducing system and for other desirable features such as tape spooling, braking, tape indicator, and all other controls generally, performance is excellent.

The instrument is well packed for transportation and the case is nicely finished in two tones of grey, with metallic gold decorations and fittings. The deck is also excellently turned out in light grey and blue-grey with white engraved controls, and the section enclosing the recording head is quickly and easily removable for azimuth alignment of the head.

The recorder is supplied complete with a reel of L.P. tape, and a most comprehensive instruction book gives detailed information about every way in which the recorder may be used; certainly much more information than could be included, even briefly, in this review.

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THE FIRST GRUNDIG STEREO MACHINE—TK55



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

The recorder operates at $7\frac{1}{2}$, $3\frac{3}{4}$ and $1\frac{7}{8}$ ips and, in addition to the facilities which are customary or which have been mentioned above, there is provision for listening in privacy, using a special headphone socket provided, and for remote control of the recorder.

FUNCTIONAL TESTS

The recorder submitted for review was tested for frequency response, wow and flutter, hum and noise level, etc., and found to be well within the maker's specification. Frequency response at $7\frac{1}{2}$ ips was tested over the range 40 to 15,000 cps with both the E.M.I. T.B.T.I. test tape and the new Olympic Sound Studios Test Tape. The response curve from my Teledeltos pen recorder showed -8 dB at 40 cps and -2 dB at 60 cps, the response then being flat to 10Kc/s and only -1 dB at 15Kc/s.

At $3\frac{3}{4}$ ips the response was -3 dB at 40 cps and -2 dB at 10Kc/s, being otherwise flat from 60 cps to 9,000 cps.

At $1\frac{7}{8}$ ips the response was substantially level from 80 to 6,000 cps.

Noise level was better than -40 dB at full output, but a very slight hum was noticeable with the gain control at the off position.

Very slight wow was detectable using a 1,000 cps test tone at $3\frac{3}{4}$ ips, but was still within the specification and measured at less than 0.2 per cent at $7\frac{1}{2}$ ips tape speed.

Re-wind time is approximately $3\frac{1}{2}$ minutes, and the tape length indicator was found accurate enough for returning to within a few inches of a desired part of the tape. The automatic stops work efficiently from tapes provided with conducting contact strips at each end. Although tape spooling and braking was first-class, there was some tendency to tape "snatching" if the forward wind, re-wind or stop buttons were operated too quickly, e.g., before the tape was fully tensioned on fast winding.

The auxiliary stop button is most effective and useful, since the tape can be halted to cut out unwanted items while recording, or allowed to remain stationary whilst setting the gain controls for correct recording level, which, incidentally, is indicated by a new type of magic eye on which two fluorescent bars move towards each other to show the correct signal level.

The superimposing system was tested, and a new recording can, in fact, be dubbed on to an existing one without losing signal level by partial erasure.

With a Grundig L.P. tape the running time is 45 mins. per track at $7\frac{1}{2}$ ips, 90 mins. per track at $3\frac{3}{4}$ ips and 180 mins. (three hours) at $1\frac{7}{8}$ ips. No microphone is supplied with the recorder, although I was able to test the instrument with the Grundig Condenser microphone type G.C.M.3, which can be supplied at £6 6s. This is an excellent instrument and proved its fidelity and response to a high degree when the TK55 was used in a train recording session on the British Railways, Eastern Section, main line. Really excellent recordings were obtained with plenty of bass and transient response so necessary for good reproduction of "train sounds," and which were very evident on playback.

The maker's specification, to which the recorder performs very closely, is given for the benefit of the technically-minded recordist, who is assured that no false claims have been made. The TK55 has a performance comparable with some of the semi-professional class of instruments.

Mains voltage: Suitable for AC only 110 to 125, 140 to 160, 190 to 210, 210 to 230, 230 to 250 volts 50 c/s.

Consumption: Approximately 85 watts.

Mains fuses: 1A 110-125 volts, 500mA 190-250 volts.

H.T. fuse: 125mA, all fuses surge resisting.

Valves: 2 x EF 86 2 x ECC 81, EL 84, EL 95, EM 84, plus three metal rectifiers.

Frequency response: At $7\frac{1}{2}$ ips 50-15,000 c/s ± 3 dB; at $3\frac{3}{4}$ ips 50-10,000 c/s ± 3 dB; at $1\frac{7}{8}$ ips 100-6,000 c/s ± 3 dB.

Recording sense: Top track, left to right (British and International Standard).

Running time per tape, using 1,800 ft. L.P. tape type TLP3: 45 minutes each track at $7\frac{1}{2}$ ips; $1\frac{1}{2}$ hours each track at $3\frac{3}{4}$ ips; three hours each track at $1\frac{7}{8}$ ips.

Signal to noise ratio: Better than 43 dB.

Wow or flutter: Less than ± 0.2 per cent at $7\frac{1}{2}$ ips; less than ± 0.25 per cent at $3\frac{3}{4}$ ips; less than ± 0.4 per cent at $1\frac{7}{8}$ ips.

Fast rewind time: Approximately $3\frac{1}{2}$ minutes (depending on length of tape).

Loudspeaker: Permanent dynamic loudspeaker, size $5\frac{1}{2}$ in. x $8\frac{1}{2}$ in.

Inputs: Microphone (1.5mV/1.5M. ohm); diode (1.5mV/22K. ohm); radio L.S./Gram P.U. (100V/1M. ohm).

Outputs: Low impedance (extension loudspeaker 3 ohms), high impedance (400mV/4.7K. ohms).

Output power: 3.5 watts.

Stereo output: (3-2) left hand channel approximately 400mV/4.7K. ohms. (1-2) right hand channel approximately 400mV/4.7K. ohms.

From the stereo enthusiast's point of view, the lack of a dual volume control for the two channels is a disadvantage, but by using two hi-fi amplifiers and speakers with a combined volume control the main gain control on the recorder could be used most effectively as a balancing control. The recorder was tested with an additional hi-fi amplifier and an E.M.I. tape, as well as a stereo test tape made for this magazine by Olympic Sound studios, and proved that with only one additional amplifier and speaker for the left hand channel, really impressive stereo is available. Tests were also carried out by recording from radio; note that this recorder can also be used for *direct* reproduction from a pick-up or radio tuner.

The circuit design has not been stinted, although only six working valves are used; H.T. supplies being obtained from metal rectifiers. Three to five watts of audio power are available and the internal elliptical speaker does full justice to high grade pre-recorded tapes.

As will be seen from the maker's specification inputs are provided for microphone, gram pick-up, a high impedance input for direct connection to the diode detector of a radio tuner, as well as a remote control socket, and if these are not enough Grundig can supply a four-channel electronic mixer unit. One final point: the internal speaker and amplifier can be used as a through monitor circuit while recording; an extremely useful facility when the microphone is a long way off, or recordings are being made from radio or pick-up.

To sum up, I feel this instrument is worthy of more mention than can be accommodated in this review. Its versatility is obviously due to forethought in design and to the clever mechanical features so often found on German-made recorders.

At 92 guineas, it comes within the price range of the better-class single channel recorder and yet provides the advantage of stereo reproduction at little extra cost.

Catch it! (and keep it)



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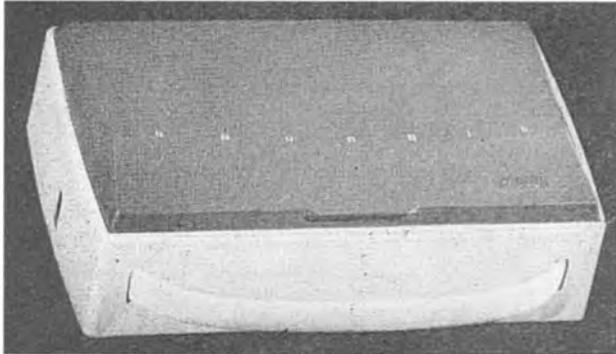
The FI-CORD is a jewel amongst recorders. And like all jewels it packs a lot of value into the smallest space: $9\frac{1}{2}'' \times 5'' \times 2\frac{3}{4}''$. The fidelity of the FI-CORD is amazing—from 50 to 12,000 cycles ± 3 db. It's fully transistorized, uses re-chargeable batteries and provides full playback volume. Yet its price is only **59gns.** including microphone, tape, batteries and charger.

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PRODUCTS REVIEW



GRUNDIG "CUB" —battery portable at 26 guineas

A TRANSISTOR battery-operated tape recorder selling at 26 guineas has just been announced by Grundig, named "The Cub." It weighs only 5½ lbs., operates at a mean speed of 3½ ips, claims a frequency response of 150 to 5,000 cps, and provides 15 minutes recording on each track. Printed circuit technique is employed.

It is obvious that, with this machine, Grundig is likely to give a mighty boost to the vogue of the midget recorder in this country.

As the photographs above and below make clear, the machine is beautifully styled and has great "eye-appeal." The overall size is only 11 in. x 6½ in. x 3½ in.

It is finished in discreet two-tone grey and case and deck are of plastic construction.

Operation is so simple that even a child would find no difficulty.

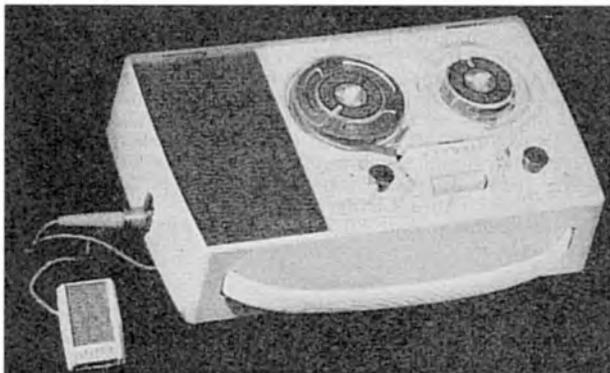
This recorder uses a technique which has been well tested in office dictating machines—it has no capstan and so the speed varies by up to 20 per cent according to the amount of tape used from the feed spool.

This means, of course, that tapes recorded on it cannot be immediately replayed on a standard recorder. They can, of course, be dubbed on to such a machine; but for most uses the standard of reproduction provided by the Cub—particularly if used with external amplifier and speaker—will be adequate.

The design is, of course, a major factor in producing so useful a machine at so reasonable a price.

It is powered by four 1.5 volt cells and one 3-volt battery, and a set of batteries provides 10 to 15 hours of operating time.

(Continued on page 32)



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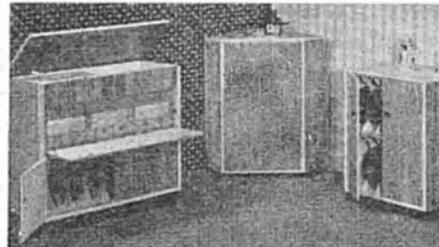
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(Continued from page 31)

The motor speed is governed and transistor-controlled to compensate for the ageing of batteries.

The amplifier employs four transistors, two of which form a push-pull output stage to feed the permanent dynamic loud-speaker.

The machine accommodates 3-in. spools.

The selector switch provides Record, Playback, Rewind and Stop facilities, and there is a temporary stop which is convenient if a short interruption is required.

A special connecting cable, supplied with The Cub, enables it to be used with auxiliary, external equipment for recording or playback. When used, the built-in speaker is muted and the output from The Cub is fed to the external amplifier and loud-speaker system.

A socket is also provided for easy connection to an external 6-volt supply, instead of the four 1.5-volt cells.

A small dynamic microphone is included with the machine. Grundig (Great Britain) Ltd., 39/41, New Oxford Street, London, W.C.1.

* * *

A Dulci recorder

THE DULCI COMPANY have devised and will shortly market a new record incorporating the BSR Monardeck and selling at 29 guineas. The complete amplifier will be offered for sale as a separate unit, with features devised to produce the best possible results from this deck. This unit has been designed for simple "drop-on" mounting to the deck.

The Dulci Co. Ltd., Villiers Road, Willesden, London, N.W.2.

* * *

The "Stereophoner"

A NEW UNIT just available here, called the "Symphony Stereophoner," is claimed to give to musical reproduction a realism and presence comparable to stereo. "Astonishing claims," admit Northern Radio Services, who are marketing the unit here at £4 19s. 6d.

It uses two speakers, spaced five to ten feet apart, but only one amplifying channel.

In the preliminary literature, favourable opinions from a number of responsible European technicians are quoted. We hope to have the opportunity shortly to inspect and use the "Stereophoner," and fuller details will then be given.

Northern Radio Services, 11, Kings College Road, London, N.W.3.

* * *

Dynatron Stereo

DYNATRON have introduced a compact record reproducer, available as a completely equipped stereo model, requiring only the addition of a remote loudspeaker unit, or as a single-channel model that can be converted subsequently to stereo. The "Cavalcade" Stereophonic four speed player takes 7, 10 and 12 inch records, and there is a choice of single player or 10-record changer.

The Stereo Adaptable Model is basically similar to the stereo version, and to change to stereophonic reproduction a second power amplifier (LF 14) can be added in the space provided, and a stereo pick-up head (GC 10) and separate loudspeaker unit type TLS 1 are required.

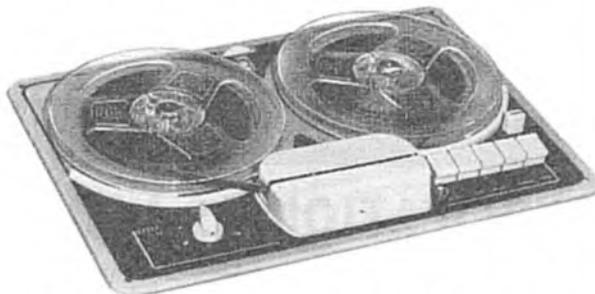
"Cavalcade" Stereophonic power output 8 watts; frequency response 30-15,000 cps. Bass control continuously variable + 10 dB to - 10 dB at 50 cps; treble continuously variable + 6 dB to - 17 dB at 10,000 cps. Loudspeakers, 10 inch by 5 inch elliptical and 5 inch treble. Prices range from 51 guineas for the Stereo Adaptable (Single Player) to 67 guineas for the Stereo Model (Auto Changer).

Dynatron Radio Ltd., St. Peter's Road, Furze Platt, Maidenhead, Berks.

* * *

The Royal National Institute for the Blind is arranging to produce a Braille edition of the "All-in-one Tape Recorder Book," published by Focal Press Ltd. last September.

NEW MOTEK DECK



The handsomely styled new Motek deck K.10, which was announced in our last issue

Stereo Control Unit

GRAMPIAN HAVE designed a Stereo Control Unit, primarily for use with their 5-10 and 10-15 amplifiers. The unit type 587, is particularly useful for those who possess one amplifier of this type and wish to convert economically to stereo by acquiring a second one.

Priced at £14 14s., it consists of a metal chassis and case containing all controls, selector switch and amplifying valve, and it is connected to the respective amplifiers by a twin coaxial lead. The power requirements are easily provided by the main amplifier (6.3 v. .05A and 2 mA at 250 v.). Equalisation and tone control are carried out by a passive network and then amplified by the double triode, the output of this valve being connected to the volume and balance controls, the range of the balance control being sufficient to give ample margin for variation in gain of the main amplifiers.

The selector switch has positions for stereo tape, stereo disc, mono disc and tuner. The balance control provides a variation of $\pm 4\text{dB}$ per channel. Bass and treble controls are also provided.

Special attention has been paid by the designers to the question of the type of pick-up with which the equipment would be used, and the final circuit was evolved around a good quality stereo crystal cartridge, as it was felt that this would meet the requirements of most users. The frequency response is given as 50 cps to 10,000 cps $\pm 2\text{dB}$.

Grampian Reproducers Ltd., Hanwell Trading Estate, Feltham, Middlesex.

Sovereign consolette

ABBAY RADIOGRAM are now producing a tape recorder capable of transformation into a consolette. Equipped with the Collaro Mk IV deck, the Sovereign uses seven inch spools, and has three speeds $3\frac{1}{2}$, $7\frac{1}{2}$ and 15 ips, and twin track facilities.

The Sovereign, as a portable with handle, measures $18 \times 13\frac{1}{2} \times 9\frac{1}{2}$ in. and weighs 38 lb. The price is £50 8s. There is a choice of three two-tone finishes: red and grey, blue and grey, or black and white polka dot. A set of screw-in legs available to make the Sovereign into a consolette are priced at £2 2s. Further accessories are the crystal radio jack for medium wave only at £2 5s. and a screened lead for radio output at 6s. 9d.

Valves used are: EF 86, ECC 83, two EL 84, EZ 80 and EM 81. Output is $3\frac{1}{2}$ w into an internal speaker for which there is an on/off switch, and external loudspeaker sockets for a 3 ohm speaker are fitted. Other controls are playback tone, volume for microphone and playback with mains on/off switch, and gramophone volume. Input sockets are provided for microphone high gain and gramophone low gain, and there are mixing facilities.

Response on playback at $7\frac{1}{2}$ ips is given as 60 to 10,000 cps $\pm 2\text{dB}$ using test tape or overall response, record and playback, 50 to 12,000 cps $\pm 3\text{dB}$.

Abbey Radiogram Manufacturing Co., 813, Green Lanes, Winchmore Hill, London, N.21.

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TAPE

RECORDING
AND HI-FI MAGAZINE

PUBLICATION AS USUAL

We are pleased to be able to continue publication on our normal basis and we hope that no readers will be disappointed. But, in present circumstances, there may well prove to be an entirely exceptional demand for the magazine, which cannot be fully satisfied and we, therefore, urge regular readers to ensure their copies by placing a firm order.

We hope to maintain publication as usual and next month we plan a greatly enlarged number featuring the new products due to be shown at this year's Radio Show.

A number of features, including some popular regular items, have had to be held over from this issue, and for this we apologise. They will re-appear next month.

TAPE LECTURES

A series of monthly lectures organised by "Tape Recording and Hi-Fi Magazine," in association with Olympic Sound Studios.

There will be no lecture during August. The next lecture is scheduled for September 5. The name of the lecturer will be announced next month.

Olympic Sound Studios, Carton Street, London, W.1

Admission Free

James Moir on

STEREO RADIO

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before us

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STEREO SOUND AND MUSIC MAGAZINE

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CURING SLOW REWIND

IN the last article, on the hum-balancing coils for the Collaro tape transcriber, reference was not made to the fixing positions of the brackets on which the coils are mounted. This coil is best mounted on top of the transcriber, for ease of adjustment, and at a conveniently close position to the relevant record/replay heads.

On recent Mark IV decks a satisfactory fixing point is sited directly behind the erase heads on the indicator clock supporting bracket. The coil unit is fitted to the underside with a 4BA nut and shake-proof washer, with the radius corner of each bracket facing forward. This method of fixing will allow the whole bracket assembly to swivel round, forming an arc about the 4BA fixing point; at the same time, and independently of this, the coil itself can be rotated a limited amount around its 6BA fixing point. Thus both phase and amplitude balance can be achieved. This also allows easy re-adjustment of balance when replacement of the record/replay head is required.

SLOW REWIND

A common fault with the Collaro tape transcriber is slow rewind, especially from right to left. This is primarily due to the loading of the clock position indicator on the right hand spool. The correct rewind time for the Mark IV deck with 1,200 ft. of tape is 2 minutes 20 seconds, which can easily be achieved if the following procedure is adopted:

1. Ensure the motor rotates for at least four seconds after depressing the stop bar, a shorter period indicates that a proportion of the motor torque is being wasted in overcoming excessive bearing friction. This can be caused by tight motor bearings or, more likely, misalignment of the upper and lower bearing. As these are, to a certain extent, self-aligning, a judicious tap on the side of the bush holding the motor fan will often bring the bearings into line.

2. Ensure that both white rewind pulleys located under the

Fifth article in a series on the Collaro deck

spool carriers are clean and free from grease. If not, clean with a mild detergent—not petrol.

3. The two tension rollers should then be checked for free rotation. They should not be oiled but rubbed dry, and are best cleaned by removing the top fixing screw and washer, pulling off the roller and cleaning this by pulling a stout piece of cord through it. The bearing surface may then be cleaned free of oil with a rag. Upon re-assembly, this roller should spin freely. If not, check that the two retaining washers are not binding the top and bottom edges of the roller.

4. Remove clock band from right spool carrier and check for free rotation. Restricted movement may be caused by surplus oil under the bell of the spool carrier. Lubrication is not required, as the two Fulon washers on which the carrier rests are self-lubricating.

5. Check that the drive pulley attached to the digit counter is free. This is one of the major causes of slow rewind and is very often caused by excessive thick oil. It is not wise to remove the clock to clean this oil off, as some of the very small ball bearings which act as a ratchet may be released and be lost. Wash this oil away with carbon tech. It is most important that this liquid does not come into contact with the maroon re-set control on the clock or the tape deck push buttons, otherwise they will become marked, as the carbon tetrachloride is a solvent.

6. Finally, ensure that the tape tension is sufficient. This may be checked by pressing the relevant tape tension arm out slightly when rewinding and noting if the speed of the rewind increases. If this occurs, tension may be increased by bending back the tag which contains the tension spring.

T. H. R.

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Hurry your Contest tapes

CLOSING DATE—
JULY 31st

THE first entries in the British Amateur Tape Recording Contest have already been received—and a preliminary hearing suggests that impressive new standards may be achieved this year. We hope so—it would be a fitting achievement in the year when, for the first time, we shall welcome the International Recording Contest to London.

Arrangements for an ambitious programme of events in connection with both British and International Contests are now being completed.

The closing date for entries is July 31st. Judging will begin immediately by the distinguished panel consisting of Miss Josephine Douglas, Mr. Douglas Cleverdon and Mr. Douglas Gardner.

The winners will be notified within a week or so, so that they can make arrangements to come to London during the Radio Show to attend the now-famous

Emitape lunch at which the prizes will be awarded.

The play-back event at Earls Court at which the best entries were heard last year will not be repeated this time, as we hope that some of the tapes will reach a standard which merits their broadcast in the B.B.C. "Sound" programme on Network Three.

The winning tapes in each of the five sections will, of course, automatically be forwarded to the International Contest and will be judged in London at the beginning of November. The B.B.C. will also give attention to this event.

The winner of the British "Tape of the Year" award will be invited to accept a scholarship place at the Tape Recording Course at Rose Bruford Training College, Sidcup, Kent, from August 27th to September 1st, inclusive.

In addition to the Emitape Cup and the ten guineas awards in each section by *Tape Recording and Hi-Fi Magazine*, there will now be a gold medal, awarded by the Wyndor Recording Co. Ltd. for the best technical performance.

The address to which entries should be sent—within the next week—is British Amateur Tape Recording Contest, 7, Tudor Street, London, E.C.4.

TAPE TITTER



TAPE RECORDING AND HI-FI
MAGAZINE ADVICE BUREAU
AUGUST, 1959

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Fi to hi-fi

HIMSELF (a clever man, and one who knows it, reclining in a most comfortable chair, a pile of catalogues at his side): I'd like to be able to run to a "Leaky," but that's beyond me. It could be a "Leaky"—and no holiday.

SHE (his wife, a comely woman, star-eyed): Then don't have a "Leaky." What's wrong with the present wireless? It crackles a bit, but then, it'll last for years.

Himself rises and paces the floor, arms swinging, much in the manner of a prehistoric ancestor.

HIMSELF: Old Watson has a "Legstrong" and swears by it. You can buy the chassis, and fit it into your own cabinet.

SHE: You can take your bloodshot eyes off my sewing cabinet.

HIMSELF: I was only thinking . . . if it wouldn't do as a cabinet for my chassis, it might house tapes.

SHE: If any tape goes there, it will be my tape. My mending things are staying where they are.

HIMSELF (changing his waveband): Will Cutie-pie come round the house with me and see if there is a piece of furniture hidden away somewhere that will do for a cradle for Daddy's new baby?

Himself goes out, while his wife gazes after him with horror in her eyes.

*

The following week-end.

HIMSELF (polishing a second-hand cabinet, his face the colour of red leader tape): Do you have to have that vacuum on when a fellow's trying to listen to a symphony?

SHE: You insisted on going "junking" this morning to find a cupboard for the skeleton, so Cutie-pie has to do her work now.

HIMSELF: Cutie-pie should have done her work on Friday.

SHE: She didn't feel like it. Cutie-pie had a bad night on Thursday. Who kept tossing from side to side in bed muttering "Emmy," "Emmy," "Emmy Structor"?

HIMSELF: That's a furniture, not another woman. There is a knock at the front door. The "Legstrong" has arrived.

SHE: I 'spose I can go to Shanghai, now you've got your Hi-Fi?

HIMSELF (tearing at the wrappings): Go to Hella's, if you prefer.

*

Two months later.

REBUKE: When are you going to put it into the cabinet? It looks awful on the floor, full of cigarette ash and thick with dust!

HIMSELF: Nothing can be permanent. One must constantly experiment, try new bits of equipment. . . .

REPROOF: I refuse to have it there in all its nudity. Get up off your hands and knees. You've hardly the vital statistics for those capers.

HIMSELF: Just listen to those upper frequencies!

RETALIATION: What will the neighbours think?

A WIFE CONTRIBUTES THIS ARTICLE IN LIGHTER MOOD

. . . OR IS IT? PERHAPS YOU MAY
DISCERN REAL-LIFE DRAMA IN
THIS STORY IN FIVE EPISODES BY

Jeanne Greenwood

HIMSELF: Frequency response of 15-35,000 cycles—pshaw!

RETORT: Have we got to have it on *all* the evening?

HIMSELF: Hear what we've been missing; absolutely no distortion.

*

Next evening.

SHE: What are you doing in my kitchen?

HIMSELF (pulling up the floorboards): Extending my fidelity.

SHE: You think that you can storm *my* stronghold, you Hi-Filibuster, you!

HIMSELF: You don't appreciate full range and full volume. You don't even know what true Hi-Fi is. Wait till I get my speaker system.

SHE: What about our 1959 holiday?

HIMSELF: When's dinner?

SHE: Your "snack" will be ready in three minutes. The usual bread and baked beans.

HIMSELF: Excellent.

SHE: Is it! If only we could have steak pie instead of Hi-Fi.

HIMSELF: Hie you to the cupboard, wench, and stop chattering like a magpie.

She opens the tin of beans and heats them, while Himself is busy with the floorboards.

SHE: "Dinner" is ready.

HIMSELF: I can't come yet, I'm making a connection.

SHE: Well, don't disturb yourself. Have it where you are.

She empties the beans over his head.

*

The following day.

SHE (no longer star-eyed, speaking on the telephone): Oh, Doctor, could you see my husband as soon as possible? I think he's radio-active. . . . Yes. . . . He doesn't speak the same language as me any more. . . . Things like "transient response, push-pull output, negative feedback, rumble filter, exponential horn." And he's talking about woofers and tweeters. . . .

Himself enters and switches on immediately.

HIMSELF: I've got an unaccountable hum.

SHE: And you'll have to hum for your supper. I'm suffering with listener fatigue. I'm going back to mother.

At the door She turns with a sigh.

You can keep your . . . Hi-Fi.

I'll have my Decree Nisi.

An owl hoots outside.

SO DELIGHTED

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So many of our customers, when writing to us, mention that they do not wish to cut their copy of this magazine and therefore we are omitting our usual little form and would ask you, when writing for our very comprehensive brochures and price lists, etc., to mention the magazine in which you saw our advertisement. Please do remember that carriage of your Recorder is completely free and it may be taken on our well-known no interest terms or our free accessory offer, whichever you wish, and that should you be in any doubt at all as to which Recorder is the most suitable for your needs, we shall be only too pleased to assist you.

THE TAPE RECORDER SERVICE CO.

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NEWS FROM THE CLUBS

MANY clubs are approaching the end of their first year in existence and some have already settled into their second year. The trend now seems to be towards encouraging larger memberships. In South Africa, for instance, free membership for a year is awarded by the **South African Recording Club** for enrolling three new members within twelve months. A "double-your-membership" plan, with the intention of getting sixty members by next June, has been announced by the **Rugby** club. Perhaps these, and other clubs, can take a leaf from the book of the **Leeds and District** club who, although only in existence for four months, have recently enrolled their fortieth member. Following this trend, **World Tape Pals** are to extend their membership to allow clubs as a whole to affiliate. Secretaries are invited to contact Len Watkins.

Edinburgh, the "grand-daddy" of clubs, have also a regular intake of new members. They have moved into larger premises and are to have meetings twice monthly in future, on the first Tuesday and the third Sunday.

Contact between clubs is also gathering momentum. Five members of Edinburgh club recently travelled across country to their nearest neighbours in **Glasgow**. The Glasgow club duly returned the compliment. Ideas were exchanged and the two clubs propose frequent exchange visits.

Coventry were hosts to members from the club in **Birmingham** and plan a return visit in the near future. They have made a tape to be sent to **Leicester** and hope to start a regular tape exchange between other clubs. **Warwick** and **Leamington** members are in contact with the **Jersey** club. In reply to a tape sent by the Chairman, Derek Randall, the island's society sent a tape dealing with their play-acting activities.



Edited by
FRED CHANDLER

Arthur Rowe, one of Coventry's members, went to live in America a few weeks ago. He has sent the club a tape of his first impressions. This new contact adds to the already impressive list of countries from which tapes are received by members. John Penman, Edinburgh's Secretary, in London recently, met and exchanged ideas with two members of the **London** club, the Secretary Roger Aslin, and Treasurer Stanley Wrist. Mr. Penman took the opportunity to visit the B.B.C. recording studios in Portland Place as a guest of Mr. Aslin.

Now that the holiday season is with us once more many club members may be passing through London. Len Watkins, W.T.P. U.K. representative, and his wife invite any enthusiasts to visit them. Each Wednesday during August they will be "at home" from 7.30 p.m. onwards. Although a card would be appreciated, Mr. Watkins points out that it is not essential. Such social evenings are a further indication of the pleasure to be enjoyed as a result of joining recording clubs.

Some weeks ago **West Middlesex** club members selected Freddie Mills' restaurant in Soho as a venue for their first anniversary party. **Rugby** chose the "Red Lion" in Sheep Street for their social held in June. The club in **Winchester**, formed in June, intends to hold a social in September.

With the experience gained in these social and semi-technical contacts with fellow enthusiasts, it is only natural that keen recordists should seek to advance to a more exciting exploration of recording techniques. The club section of the B.A.T.R.C. was therefore initiated to encourage programme-building in the form of a sound picture of districts surrounding clubs. From reports received from clubs I can see that they are entering into the spirit with great gusto. West Middlesex have divided up their district into areas, thus allowing greater coverage. Their "Our Town" tape is nearing completion.

Club Personalities No. 1



MICHAEL BROWN

of Rugby Tape Society

MIKE was a member of the **Warwick and Leamington Tape Society** when he first had the idea of creating a club in **Rugby**. With the help of a few local enthusiasts, notably Alec Lovett, **World Tape Pal** later to become **Rugby's Treasurer**, he founded the **Rugby Amateur Tape Recording Society** in May 1958.

Through the months, this has grown into a group of nearly thirty members, with frequent inquiries from interested visitors.

He has produced a newsletter, "Tape Life," which contains the latest news of local and national interest, and is circulated to all members of their own and other clubs.

He is a travel agent and lists his main interests apart from recording as: motoring, 35mm. photography, radio and TV, reading and travel.

A keen tapespondent, he is a member of **B.T.R.S.**, **World Tape Pals** and the **Voicependence Club of America**. He owns a **Philips** and a **Wyndor Viscount** recorder.

Other examples of the way in which clubs are exploring the avenues of recording come from Coventry, Rugby, Birmingham, Warwick and Edinburgh. Coventry are in the process of rehearsing for their play on tape, "The Permanent Way." Rugby, recently at home to members of Leamington club, were responsible for the welcome speech relayed over the station loudspeaker system at Rugby Midland when the town welcomed M. Mandle, the Mayor of Evreux, and other representatives from Rugby's French twin-town. A parade and the reading of Charters was one among the functions held during the delegation's visit. Five members armed with four recorders taped the show. The master copy was given to the visiting Mayor when members of the club were presented. Not so smooth running was this club's A.G.M. The proceedings were recorded until an electrical failure resulted in a short of the recorder in use and the meeting proceeded "off-the-record."

Trevor Cuff, Chairman of the Birmingham club, recently presented a recording of music by the Maoris' contingent at the World Scout Jamboree. This same club's search for unusual sound effects was publicised in a Birmingham paper when they were referred to as "the Society that wants to find queer noises."

Warwick and Leamington feature in the documentary news this month. Brian Race entertained members with his slide and tape show of his holiday in Bavaria and Austria. He is off to Italy this year with his portable recorder and a 35 mm. camera. Chris Barnacle and Gray Harris are also engrossed in a tape dealing with the history of the "Cutty Sark."

Bill Young, President of the Edinburgh club, was asked to produce two tapes on Scotland by a Canadian Broadcasting Company. The first, a documentary, interspersed with Scottish music, dealt with the country in general. More recently he secured an interview with Brigadier-General McLean, producer of the Edinburgh Military Tattoo. Both tapes were broadcast in their original form. Mr. Young has also been approached by the B.M.A. to record conferences during the combined convention between the B.M.A. and the Canadian Medical Association.

Visits from manufacturers look like becoming a regular feature for quite a number of clubs. Mr. Parrington, of Walter Instruments Ltd., has continued his tour with a selection of Walter recorders. His latest travels have taken him to **Bournemouth**, **Middlesbrough**, **Winchester** and **Leeds**. Earlier this year Mr. Raine, of Brenell Engineering Ltd., demonstrated some of the Brenell equipment. Coventry have had a second visit from Mr. Hall, of G.E.C., who gave a talk on recorders and amplifiers. Glasgow recently entertained Mr. McDougall, of the B.B.C. He demonstrated a Ferrograph and an Ampex machine and also explained editing and programme building.

(Continued on page 41)

Classified advertisements

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

Serious Music Recordist (Local) please contact Hanley, Rodney Hotel, Cheltenham.

DULCI-HARTING Tape Unit, for use with amplifier. Still under guarantee. £45 o.n.o., with microphone. Box 305.

SOUND Recorder 3-speed, twin-track, hardly used, perfect condition. Cost £57 15s. £30 for quick sale. Seagroatt, 303, Fulham Road, S.W.10.

THE TAPE KING scoops again with a new low-priced tape bargain! 7 in. "Gevaert" LP 35s.; 5 in. "Gevaert" LP 19s. 6d. P & P 1s. 6d. each. Also 7 in. LP by various leading British and Continental makers at up to 30 per cent cheaper than list. 7 in. 1,200 ft. "Ferrotape" (X.M.O.S.) (list 45s.) 25s. P & P 1s. 6d. Special offer! 1,200 ft. 7 in. P.V.C. £1 P & P 1s. 6d. We have a specialised Repair Service for Tape Recorders, F.M. Tuners and other Hi-Fi equipment. Large selection of second-hand recorders. All makes of new recorders and Hi-Fi equipment available on no interest, low deposit terms. E. C. D. Kingsley & Co. "Always first for tape," 132, Tottenham Court Road (Corner of Warren Street), London, W.1. EUSton 6500.

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JOHN HASSELL RECORDINGS. Tape/Disc. All speeds. C.C.I.R. Studio, 21, Nassau Road, London, S.W.13. Riverside 7150.

TAPE RECORDERS, players, radios, etc. (modern), wanted for cash or exchange. Callers or particulars. Cooks, 159 and 187, Praed Street, W.2 (opp. Paddington Station). PAD 6464.

TAPE RECORDERS. Large selection of used models, most as new. Three months guarantee. Part exchanges with other machines, cameras, binoculars, etc. Ferrograph Tape, 7 in. spool, 1,200 ft. 25s. Cooks Miscellaneous Store, 159 and 187, Praed Street, W.2 (opp. Paddington Station). PAD 6464 or 5931.

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

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BISHOPS for BARGAINS, LOOK. New Tape Decks in original packings: Collaro Mark IV Transcriber, £17 10s. Wright & Wearre, £30 10s. Truvox, £15 10s. E.M.I. Stereophonic, £45 10s. Microphone Jack Plugs, 3s. 6d. each. Slightly shop soiled but in perfect order: Gelloso Recorder, £29. 777 Recorder, £25. Phonotrix, £20 9s. 6d. Grundig T.K.20, £40. E.M.I. T.R.50, £95. BASF Doubleplay Tapes and all accessories in stock. Post and packing extra from 48, Monmouth Street, W.C.2. Temple Bar 7484/5. TAPE TO TAPE, TAPE TO DISC SERVICES.

WANTED. Experienced Tape Recorder engineer for retailer's service department in West Middlesex. State salary required. Box 306.

For Sale—A new unused GRUNDIG TK-30 tape recorder—£70 o.n.o. Apply Box 307.

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NEWS FROM THE CLUBS

(Continued from page 39)

Last month we told how Maurice Chambers inaugurated his "Tape Programmes for the Blind." Another equally active organisation forms part of the **Voicependence Club of America**. Organised and conducted by John L. Hughes, of London, the **Sightless Members Section** was founded in March this year. From the start offers of practical assistance poured in and a panel of readers was quickly formed. Manufacturers responded with gifts of tape; an American society, "Ways and Means for the Blind," of Augusta, Georgia regularly sends spools of tape; and the Dramatics Committee of an English University has offered its support. The G.P.O. granted concessions in their postal rates for tapes despatched under the scheme. But above all, the standing of the section today comes as a result of the unceasing help given by Mr. Charles H. Standen, of London. Blind himself, Mr. Standen has for four years conducted his "Tape Circle," which caters exclusively for the blind. It is to his inspiration that the Voicependence Club owes the initial impetus resulting in the formation of the Sightless Members Section.

A police group has been formed for WTP members who are in any way associated with law enforcement. The group is endorsed by the International Police Association and has as its objective education combined with pleasurable listening. Members are required to make a tape every three weeks discussing police matters. Juvenile delinquency, social problems and interesting cases are just a few of the suggestions to be noted for discussion on the tapes, which are circulated on a rota system. One stipulation is made . . . members are not expected or permitted to circulate confidential or restricted information.

Our new style club section has led to the exclusion of club addresses. In future issues we shall include these in list form. Meanwhile, here are details of new clubs in **Grantham, Ipswich** and **Portslade**. The remaining three addresses are those of persons seeking to form a club.

FEDERATION A.G.M.

Club membership subscriptions to the Federation of British Tape Recording Clubs have been reduced to one guinea irrespective of size. An all-out recruiting drive is planned to make the Federation one hundred per cent representative of other tape recording organisations in Great Britain. The tape recording industry and other interested bodies are being approached for trade assistance on a special 10 guinea membership fee basis.

"These steps should really strengthen our position nationally," Secretary, Alan Stableford, told *T.R. Magazine* at the Coventry Annual Meeting on June 20.

Delegates from Clubs in many parts of the British Isles heard Chairman John Amphlett refer to the difficulties of the inaugural year, yet to the high hopes which the Federation has for the future.

Ian Arnison, Associate Editor of *T.R. Magazine* stressed the importance of the work of the International Federation of Recording Clubs (which the British Federation is now joining), as well as the International Recording Contest which is being held in London from October 31 to November 3.

John Amphlett (London) was re-elected Chairman; Alan Stableford (London) becomes Secretary in the place of Roy Penfold (Coventry) who is now Treasurer. The Committee comprises: L. Skingley (Coventry), F. Gazeley (W. Middlesex), and F. Westcott (W. Middlesex).

Mr. C. Hesketh, 7, London Road, Grantham.
Malcolm Wilding, 31, Darwin Road, Ipswich, Suffolk
Ray Mitchell, 78, Southdown Road, Portslade, Sussex.
Mr. Gareth Jenkins, 5, Glyndwr Road, Aberystwyth, Cardiganshire (Aberystwyth 7720).
J. W. B. Evans, "Gorsefield," Whinacres, Conway, N. Wales.
George R. Parks, 175, Newsome Road South, Newsome, Huddersfield, Yorks.

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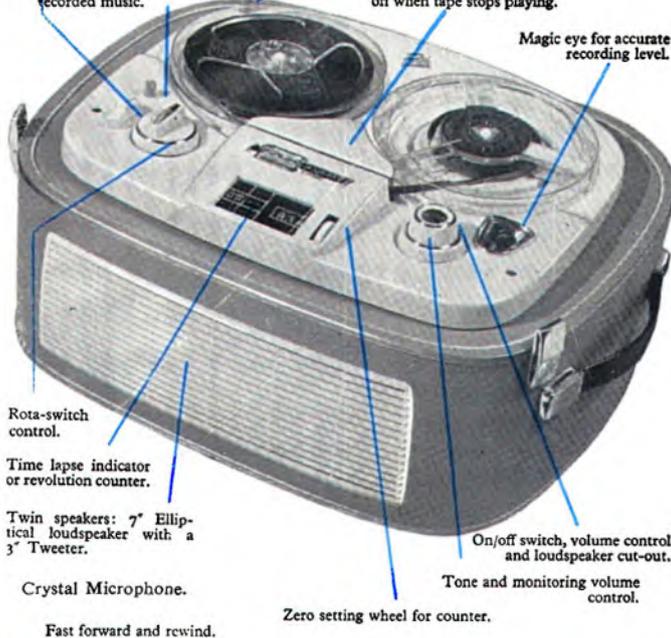
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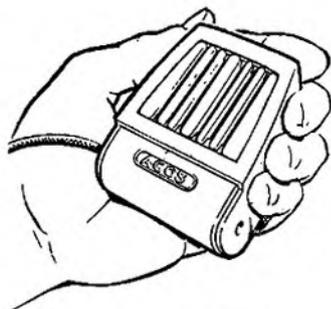
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The Acos MIC 40, for instance, is a neat, fold-away microphone, that either fits snugly into the hand, or stands on its own. One of the smallest microphones in the country, in attractive dual colours, the MIC 40 is standard equipment with many well-known tape recorders. It is also available separately from most good dealers. The price is moderate, and the sensitivity and sound reproduction are remarkably good. Acos also make several other, equally successful microphones in different price ranges.

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