

Audio Patents Adrian Hope

SOME READERS may recall the controversy of a few years ago over omnidirectional versus directional loudspeakers, with firm differences of opinion between the Editor and Stig Carlsson of Sweden, mentor of Sonab and originator of that company's range of omnidirectional speakers. Sonab equipment is no longer represented in the UK, but just prior to its disappearance the company showed a new range of speakers which appeared to show a trend away from omnidirectionality. All efforts on my part to correspond and discuss this apparent change of heart with Carlsson failed, so I was particularly interested to see the recent issue of two patents (BP1 484 632 and 1 484 633) which cover the last loudspeaker designs. The patents give a reasonably clear indication of Carlsson's current philosophy. In BP1 484 633 he acknowledges as widespread 'the idea that reflected sound is disadvantageous'. He then goes on to state, only rather vaguely, that 'loudspeakers of the omnidirectional type, more or less imitating a non-directional

source, have also found supporters'. The patented invention is based on Carlsson's observation 'that a modified type of omnidirectional speaker which has from two to four times higher ratio of direct to reflected sound than a perfectly non-directional source, is required to provide truly natural and life-like stereo or quadrasonic reproduction'. Deeper into the patent, Carlsson refers to paying 'due regard to the greater importance of the directional information in stereophonic, as opposed to monophonic, reproduction'. This seems to indicate a marked change of direction by Carlsson.

The patented idea is not easy to follow or synopsis, but appears to rely on mounting the mid-frequency transducer on the loudspeaker baffle so that it is angled diagonally to the listening area and also inclined upwards. This is claimed to provide the ideal ratio of direct to reflected sound in the mid-range, independent of frequency. To provide sufficient direct sound at the HF end, two or more tweeters are mounted to fire in opposite

directions, for instance two towards the listener and one towards the room wall.

The second patent also concerns a diagonally-angled midrange unit, mounted at an inclined angle. Special emphasis is placed on its mounting in a concave area of the baffle. (In practice the mid unit of the first 'patent' speaker is also mounted in a similar way, the separation of the two ideas being merely for reasons of patent legality). Carlsson argues that by both inclining the speaker and mounting it in a shallow pit there is an advantageous effect. The inclined mount means that direct sound reaches the listener at an angle, which varies relatively little as the listener moves from one listening position to another. Moreover, there is minimal variation between the intensity of the direct sound and that reaching the listener after first reflection from the ceiling. This appears to be largely due to the increase of direct sound which the concave mount for the transducer provides with increasing lateral angle. So the direct sound to different listening positions is of almost equal intensity, while the strength of the first ceiling reflection changes less due to the slantwise mount of the transducer.

Tape Matters Douglas Brown

THE LABEL 'oral history' for recordings of men and women reminiscing about the past was invented by academics and that is doubtless why it is so off-putting. In fact, the whole approach of the academics is likely to be discouraging to the average amateur recordist, for already an unnecessary mystique has been created. There need be no mystique; any intelligent person can conduct a 'structured interview', and the fact that he or she is interested only in the intrinsic value of an individual's personal memories, rather than in collecting material that will fit neatly into a pattern of historical or sociological theory, will give the recording spontaneity and life.

What most people do not seem to realise is that there is a ready 'market' for such tapes; not one in which there are big fees to be earned, but one which provides a great deal of satisfaction. Most local libraries have now begun to build up sound archives and they are always on the lookout for suitable material. There are also many specialised libraries which accept suitable tapes with gratitude.

My thoughts have turned to this subject because of my recent experience in collecting material for a book on the history of the Port of London. A note published in the house newspaper of the Port of London Authority brought letters from a dozen pensioners who had worked in the port fifty and more years ago. I have now begun to record their collections and the library of the PLA has indicated positive enthusiasm to acquire the tapes after I have finished with them. The material on them will most certainly be of value to future historians in this field. And this example could undoubtedly be matched in most industries and commercial enterprises.

When interviewing, it is essential to have a

carefully planned series of questions designed to bring out the material one seeks in a logical order; but it is equally important to allow the subject being interviewed to be spontaneous. Consciousness of the recording equipment can be a seriously inhibiting factor with elderly people, and I use one of two alternative methods. I ask them in advance of the meeting to agree to the interview being recorded. If I am visiting them in their homes I use a battery-operated portable recorder, so that I can place it casually on a chair or table as I enter the room and then concentrate on finding the best place for the microphone as I go through the preliminary greetings and introductory courtesies. Normally, they only notice at the moment I switch on, with the reminder, 'You don't mind? I'm recording you now'. The other method is to invite the subject to my own home, and then I can use a mains machine and have everything set up in advance, with nothing but the microphone visible.

There is an unlimited supply of fascinating material to be collected in this way, and there is a ready audience for it. It is not the type of material that fits well into the formulae of any of the existing recording contests in this country. I think one of the leading tape companies would perform a real service if it sponsored a new contest for 15-minute tapes on the 'memories' theme.

3M SCORED another big success with their 'Scotch' Wildlife Recording Contest, which turned up several hundred entries and provided the material for a BBC 'Living World' programme a couple of months ago. Lord Alec Douglas-Home, former prime minister and student of wildlife, gave a special gloss to this latest contest by agreeing to come to the Hilton Hotel celebrations in January to

present the prizes.

Keith Biggadyke, a professional gardener living in Barnet, took the premier award—£500 worth of 'sound safari' recording equipment—for a recording of a muntjac deer, with a nightingale in the background, made on Forestry Commission territory in Hertfordshire. Although he had entered tapes in two previous contests, this was his first success. Some of the other winners in the contest, however, were familiar names: Jean Clamp, Bill Jackson and Dr Alex Meldrum have all taken prizes in the British



Keith Biggadyke receives his watercolour (Muntjac deer) from Lord Douglas-Home

Amateur Tape Recording Contest with wildlife recordings. But newcomers were certainly not crowded out. Other winners were Charles Meachem, of Wolverton, Charles Myers, of Salop, and Bill Pedley, of Milton Keynes, with bird recordings; John Fitzgerald, of Birmingham, with a recording of a bumble bee being attacked by a swarm of ants; and Mike King, of Birmingham, whose recording of snipe was the best entry on cassette.

The organisers announced at the Hilton that in future prizes will not take the form of recording equipment, because most of the entrants now seem to be very well equipped in that department. The top award next time will be a snazzy TV, with Ceefax and Oracle facilities, valued at £1,500.