

thing that has stood in the way of better records by tape than by disc and that is the improvement of the tape coating material about which there has been some difficulty in the past. I understand that in this respect great strides have been made recently.

The technical side, in fact, is simple enough. What I am not so clear about is how the economic and legal problems are to be dealt with. For example, what precautions can be taken against piracy, which is clearly much more feasible in the case of tape than it ever could be in the case of discs.

### The Decca Range

No specially novel developments are announced by Decca for the Radio Show. Their radiograms and record reproducers (with the exception of the Deccamic II which is a single-valve, high gain reproducer and therefore must use a crystal pickup) continue to use the XMS interchangeable heads, which have proved themselves during the past year. The Portrola (at £35.15s. 6d.) continues unchanged with a 2 waveband radio receiver and a 3-stage audio amplifier; the Deccalion 81 has a 3-stage amplifier with negative feedback over the last two stages and is priced at £34.18s. 10d.; The Panatrop Record Reproducer (45 gns.) is similar in design to the Deccalion but has a rather higher output and is housed in a handsome walnut finished cabinet. It also has a Garrard autochanger and a larger loudspeaker. Such novelties as there are come in the form of the loudspeaker systems in the RG98 Radiogram (69 gns.) and the 102 Radiogram (89 gns.). Both have a 3-waveband superhet receiver and a 3-stage amplifier, but the latter has a push-pull output stage and an output of 5 watts as compared with the 3 watts of the RG98 and the Panatrop. But whereas the Panatrop has a single 8 in. speaker the RG98 has a 10 in. speaker for bass response and an electrostatic speaker for treble; and the 102 has a high flux 10 in. speaker for bass and two electrostatic speakers for treble.

### Macte Virtute, Cosmocord

On Stand 44 at the Radio Show Cosmocord will be relying this year on the considerable interest they created when the new series of Hi-g pickups were announced. There are no new developments forecast for Rochelle Salt Crystal instruments; and it has not yet been made clear what is happening to the Barium Titanate cartridge. The lead they took last year still keeps them in the first line.

### Collaro, Too

As with Decca and Cosmocord, Collaro are continuing the range which they successfully introduced last year. Two changes are noted, apart from the introduction of the Transcription motors about which I wrote fully last month. There is a new Model 54 Record Changer which mixes 7 in., 10 in. and 12 in. records and keeps the change cycle time constant at all record speeds. And there is a new Model AC3/544 3-speed motor which has the new 1-piece lightweight pickup arm and new turntable.

### Garrard, Likewise

Garrard continue with the T and TA units and with the Autochangers RC 90, RC 80M, RC 110 and RC 111 already announced. The one newcomer is the 301 Transcription motor which was promised last year and shown in prototype at the B.S.R.A. Exhibition in May. It is claimed by the makers to be "superb in its class", and certainly high praise was given by my technical friends to its prototype (I did not see it myself, being abroad on holiday). Both turntable and mounting plate are in diecast aluminium, and the turntable has large

inertia. Each of the three speeds are adjustable (plus or minus 2½%) by means of an eddy current brake.

### Frequency Modulation Stability

The problem of frequency drift in F.M. Tuners has been something of a headache during this experimental period. In every example that I knew of until recently there was always a drift of some 3 or 4 mcs. during the initial warming up period. In some cases the drift even continued in an uncertain way after that first ten minutes.

I am happy to say that the problem seems to have been satisfactorily solved by Sound Sales in the past few weeks. I was asked to send back the F.M. unit which I reviewed some months ago so that it might be modified accordingly. It was returned to me within a few days just in time to be reconnected for the Tannhäuser broadcast to which I refer on another page. I had not even time to give it a test before I had to go ahead with the recording of the second Act. There was no drift from the moment of

switching on and no retuning was necessary throughout the recording.

### Correction and an Apology

My apologies are due to Portogram Radio Electrical Industries for allowing two serious misprints to pass in my report on their Portable Amplified Reproducer last month. It is bad enough having one's name misspelt; it is worse when the weight of a Portable is given as 261 lbs. instead of the remarkably low figure, considering the facilities, of 26 lbs.

I am reminded of Christopher Stone's remark many years ago concerning the weight of an acoustic portable. He said he had looked up the definition of the word "portable" in his dictionary, and found that it meant "able to be moved about, as 'portable railway'".

The Portogram is not like that. It is really portable, by hand, and without strain.

On page 140 of the August issue the telephone number of the Lancaster Hi-Fidelity Acoustical Equipment Company should have read Deansgate 2503.

## TECHNICAL REPORTS

By P. WILSON, M.A.

### The Pamphonic "Victor" Loudspeaker.

Price 55 gns. (Pamphonic Reproducers Ltd., London, N.W.9.)

#### Specification:

Cabinet: 24½ in. by 17½ in. by 42 in. high. Finished in highly polished walnut with golden meshed front, surrounded by light wood border. Aperture for bass unit and vent for reflex behind golden mesh. Aperture for treble unit behind mesh on top surface.

Bass Unit: 15 in. cone with 16,000 gauss permanent magnet. Will handle more than 15 watts of 35 cycle steady tone without distortion.

Treble Unit: Special design with elliptical cone and aluminium voice coil and voice coil former. Mounted in separate compartment at top of cabinet in such a way as to give wide angle diffusion.

I made some remarks about the superb quality given by this speaker when I was commenting on the demonstration of the Pyc amplifier last Easter. What impressed me particularly at that time was the fact that the superb quality was maintained at the high level required for a public demonstration in a hall seating some 200 people.

I have now had a speaker as a daily companion in my drawing-room for over a month. The quality that has stood out and has endeared the speaker to my household, is the delicacy that is maintained at really low volume levels. It is as though one had a high-powered car capable of giving a startling performance when called upon and yet content to tick over quietly and softly when the power is low. The secret, of course, is balance—at various speeds in the case of the car, and at various frequencies in the case of the loudspeaker.

I have used the speaker with my own amplifier, with the Quad II and with the new Amplifier 1002/1002A which Pamphonic have now produced.

I shall have more to say about the 1002 in a full dress report which I hope to make next month. For the moment I must confine myself to saying with this amplifier, as with the other two—and I doubt not with any other high-quality amplifier—the Victor speaker gives absolutely first-class results.

The cabinet is a handsome affair, solidly

constructed in 14-ply, ¾ in. thick, and given a superfine walnut veneer finish, which seems to please everyone. Internally the sides are strutted and heavily lined with thick felt so as to stop panel vibration. The cubic capacity of some 10½ cub. ft. is much more generous than one usually finds, as is also the structure of the vent. Everything about the construction gives the feeling of liberality—even the way in which the special enclosure for the treble unit is made so that there shall be no risk of interference between the two units.

The bass unit has the biggest permanent magnet I have ever seen. This serves to maintain a high flux density whilst permitting a very low surround resonance—below 30 c/s. Hence the steady power handling capacity at the lowest frequencies and the avoidance of intermodulation distortion. This again results in a clarity and lack of coloration which is such an obvious feature of the speaker.

Equal care has been given to the design at the treble end of the scale. The treble unit does not overload even at very high power levels, and there is thus no tinny or siren-like tone with the strings. Even the effects which depend on transient response, like the percussion instruments and some of those queer affairs which dance bands use, have a softness in their very clarity. I see that the makers claim "a superb sense of presence due to elimination of point source beaming effects at high frequencies." I should not quarrel with that description, though the feature that attracts me is the absence of those tones which so often make one uncomfortable when a long frequency range is used, particularly at high volume.

There are two other practical features to which I should call attention. The first is the incorporation of what is called a "room-matching switch" which alters the balance between the bass and treble units. This is a simple but useful adjunct, particularly when used in conjunction with the other facility, which is the mounting of the whole cabinet on easy-running castors. I took advantage of these facilities to experiment with the placing of the speaker in the room. It was quite surprising what a difference could be made at low volume levels by attention to the placing. I actually found a corner position best with the cabinet about 9 in. or so from the two walls.