

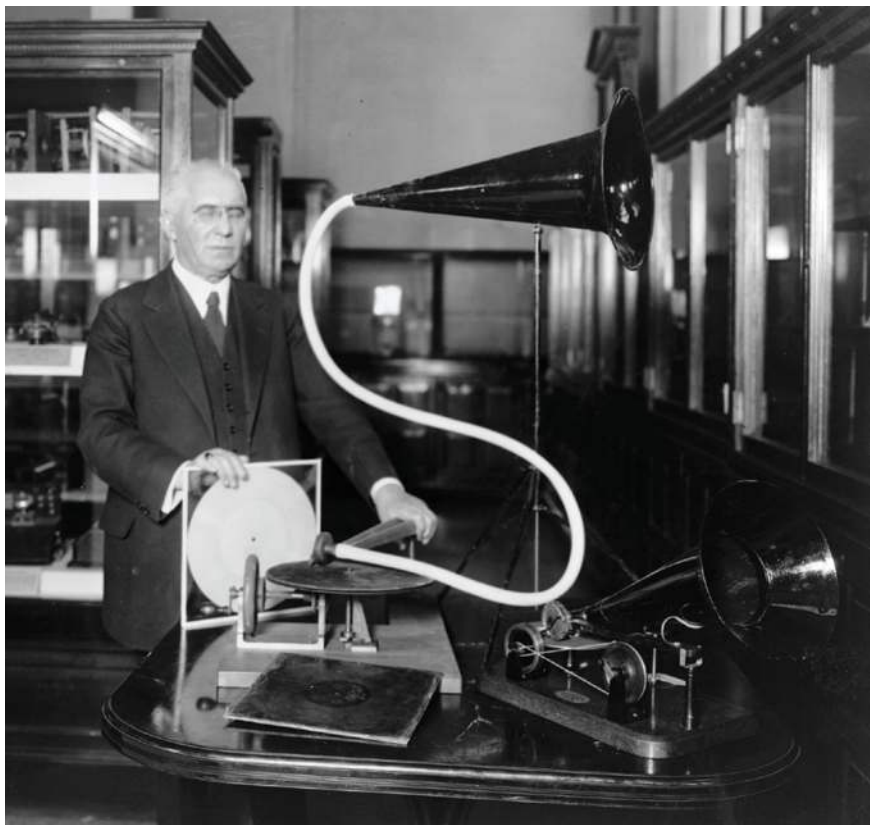
Stan's Safari 30

STAN RECALLS THAT CD WASN'T THE ONLY CRITICAL DISC DEVELOPMENT OF THE EARLY 1980s

Throughout my career I've tried designing most hi-fi components apart from turntables and arms. To be strictly correct I did design a record player based on Scan-Dyna parts for Cambridge Audio in the 1970s, and then a couple of Rotel players in the 1980s, but that stretches the term designing beyond its true meaning, as it was more a case of me 'having a go' with unexpectedly good results. This shortcoming in my experience is not, I like to think, because I wouldn't have anything to offer to the world of turntables, but because the more I thought about the topic the more problems I saw. Let's be realistic: who would conceive of such a crude method of storing music?

We are where we are today because Emile Berliner 'perfected' the technique of recording sounds onto a flat wax covered disc in 1887, using the direct

Emile Berliner



sounds to vibrate a small cutter while traversing a mechanically pre-set spiral across the disc. Not long afterwards he used electroplating to make a thin metal facsimile of the disc from which copies could be pressed or stamped. And so was born the gramophone industry.

Obviously once the record industry reached critical mass it was almost impossible to switch to an alternative format, witness the almost 100 years before the Compact Disc gained solid traction. But what I do find fascinating is that very few attempts were made to find a better way of recovering the musical signal embossed into the tracks of a disc. The industry has stuck with the principle of a stylus following the undulations of the track then converting that movement into an electrical signal by means of an electro-magnetic generator, but consider how difficult it is to do that accurately.

For stereo the stylus must follow all ups & downs and side to side motions of the groove, but must also avoid responding to any movements in the disc or platter. Put simplistically the disc must be rigidly bonded to the platter and the arm must also be rigidly bonded to the platter. Then the only moving part becomes the stylus. However, since the stylus needs to be free to follow the spiral groove, the arm must have a freedom to move which brings in a whole bunch of variables. I'm not going to go over all this well covered ground, but just consider one variable. Designers spend a great deal of time & money to produce some very precise engineering on the end of which sits a pickup cartridge. This cartridge has a body which, like all mechanical structures, resonates at no end of frequencies. So what do we do? In the case of Koetsu (a brand that I particularly like), cartridges are offered mounted in several different bodies, each of which has its own sound and for many listeners it might be a case of choosing the one which they prefer. But I ask you, if we are seeking perfect fidelity, is this any way to run a railway?

My first awareness that there might be a "better way" came when I got involved in the design of the RCA Capacitance Electronic Disc technology used as the basis of its *SelectaVision* video disk playback system. This video disk format was launched in the US in March 1981, and marketed in the UK in 1983 under the name CED by Hitachi and GEC McMichael. Another well known UK consumer electronics company was considering licensing the technology, so I got quite involved in the workings of this short lived system. And at the time I was struck by a number of features which I felt could well have been adopted by a high performance audio system.

Even readers with long memories can be