Mechanical Music

by Jack Tempest

1. Musical mechanisms have always had great novelty value and such movements have been found in gentlemen's pocket watches, watch-chain fobs, various items of ladies jewellery and even built into escritoirs and sewing boxes! Legend says that Queen Victoria had one hidden in her bustle!
This Swiss gold fob holds one of the tiniest of musical mechanisms.

2. The largest mechanical musical instruments are the magnificent colourful fairground organs seen in action at vintage fairground rallies around the country. These are designed to produce voluminous music, generally have at least one amusing moving figure conducting the music, and often include active drums, castanets, and other automatic instruments. These huge organs had their electricity generated by a Showmans Steam Traction Engine. The organ in this photograph was a mighty Gavioli which was the first card-book instrument to be brought into England in the late nineteenth Century. The invention of the perforated 'card-book' by Gavioli himself allowed organs a greater variety of lengthier recitals against the fewer, shorter recitals of the previous 'barrel-organ' system.

We can all easily have music 'on tap' in our homes these days, but time was when if you wanted music you had to make it yourself! Mechanical musical instruments came later when semi-musical instruments such as organs, harpsichords and pianos became available. These devices were able to offer more expressive musical renderings, though all needed skilled operators.

Time brought self-acting versions into the home such as the treadled mechanical piano, or 'Pianola', which picked up its melodies from a perforated roll, the organette that was programmed similarly or from a pinned wooden cylinder usually hand wound.

The latter method was also used to present the tunes of the Victorian musical box which was invariably powered by an internal clockwork motor. As its pinned cylinder turned, the tuned teeth of a steel comb were plucked to produce the required notes and chords to make the tune.

Huge organs, richly decorated, were produced to serve the old-time fairgrounds. They had to be big in order to provide music that could be easily heard above the sounds of the fairground rides. Of course, they could not be hand-wound, hence the use of the powerful Showmans Steam Traction Engines that could generate the necessary electricity to run the organs. The earliest organs worked from pinned cylinders until Gavioli introduced, in the nineteenth century, a perforated card-book system which allowed a greater variety of tunes to be produced with longer runs of popular and classical music.

Similar organs offering more peaceful music are smaller examples designed for performing in contemporary dance halls. They still need reasonable space for storage, for home use several smaller, hand-turned pipe or reed organs were available which worked from perforated paper rolls or small pinned wooden cylinders, often referred to as 'cobs'.

The performance of the musical box was improved by the invention of the disc-players instruments in which the projections behind a steel disc controlled the playing of the teeth of a steel comb. The improvement here meant that single steel discs of classical and new popular tunes could be purchased individually, offering more rounded performances than the limited actions of the earlier pinned cylinders. These instruments had commercial names such as 'Polyphon', 'Symphonium', 'Kalliope', etc. and were mainly of German origin. They offered loud enough music to be used in places such as public houses. Coin-slot versions were available, effectively turning them into the ancestors of the later 'Juke Box'!

The main source of musical boxes had been Switzerland but the German success with their disc-machines, available in horizontal and vertical cabinets, provided them with serious competition. Eventually the Swiss company of Mermod Frères introduced a revolutionary projectionless disc machine. It was sadly too late because the whole musical box industry had a new world competitor when Thomas Edison began production of his new invention, the 'Talking Machine' or 'Phonograph' towards the close of the nineteenth century. Not only did it talk, but it could play music too!

Edison had found a way to record actual sound and experts ever since have been tackling the task of achieving 'high fidelity' reproduction, a problem which has almost been resolved, although not quite! The pre-phonograph musical producers, instruments in their own right, certainly offered 'high-fidelity' sound!

All these instruments mentioned, phonographs and gramophones included, are now collectable. If you have the money and facilities for storing and moving huge fairground organs then fine, but most of us have to be content with smaller collectables. Small organettes and musical boxes take up less room and are the most popular of mechanical musical instruments.

3. Musical movements were even added to ceramic items. This example from Fielding's 1930s range of musical jugs plays the once popular tune of "Daisy, Daisy" and is suitably illustrated.
A nice souvenir collectable worth around £159-£200.

4. This simple German 19th century organette for home use offered the novelty of dolls dancing to the music.

5. Smaller than the organ in picture 2, organs like this were often seen at vintage rallies and were really designed for indoor use, dance-halls in particular. Their volume is obviously lower and designed primarily to replace dance bands of the day. There are examples with automated human figures playing normal instruments for Continental dance-hall entertainment.

Some are very small items, there are musical snuff boxes for instance, and tiny pieces of jewellery containing mechanical musical movements. These are purely of novelty value, it is the larger musical boxes that offer first-class entertainment. There were several Continental firms offering the finest instruments, some offering better performances than others, including a forté-piano box offering low and louder sections of classical music.

Buying a huge fairground organ would cost thousands of pounds plus storage, transport, and general maintenance on top. There could be problems in playing such a machine in that it could only be demonstrated in action at some local celebrations or at vintage steam fairground rallies for example! Smaller mechanical organs may be a little less expensive but their expense will not exactly stop with their purchase! Street organs are cheaper but generally need garage storage, and hand organs, such as the 'Gem' Organettes may be purchased for round £300 to £500 and can be accommodated in the home.

All these instruments need 'feeding' with book music or pinned cylinders – with examples usually included with purchase. Disc music boxes can cost anything from £1,000 to £4,000 for coin-operated vertical examples to around £1,000 for horizontal table top machines. Early cylinder musical boxes vary in size and can realise values in the thousands down to the hundreds, according to size and of course quality! Modern musical boxes go for only a few pounds but there are still collectors for them.

Before setting out to buy examples of mechanical musical instruments either at auction or privately, it would be advisable to read a book or two on the subject. Better still join the Musical Box Society of Great Britain (visit their website at www.mbsgb.org.uk) which issues to its members a useful magazine and arranges an annual London meeting along with several meetings around the country each year. This is an ideal way of meeting and chatting with fellow collectors who 'know the ropes' for those new to the hobby.

For those interested in organs then they may well benefit from becoming a member of the Fairground Organ Preservation Society. Membership enquiries to John Page, 43 Woolmans, Fullers Slade, Milton Keynes, MK11 2BA, U.K. Information regarding Musical Box Society of Great Britain membership available from Kevin McElhone by email at kevinmchlhone@supernet.com or by telephone on 01536-726759. It is not necessary to already have a collection in order to join!

6. The cylinder musical box reigned for several years, plucking out its music from the tuned teeth of a steel comb. The plucking was done be the many steel pins bristling around the turning cylinder. The cylinder was steadily turned by the box's internal clockwork mechanism. The price of such boxes increases with the quality of the workmanship. Today, working examples in reasonable condition may be bought from a few of hundred up to several thousand pounds!

7. A horizontal Polyphon disc box

8. The disc musical boxes like this upright German "Kalliope" gave louder performances than the cylinder sort and were fitted with penny-slot mechanisms to become popular in public houses and places where the public gathered. They were, in fact, the ancestors of the later "Juke Boxes"!