

Assignment 3 – Extended Definition (Music Box)

Technical Definition

A music-box is a clockwork instrument that plays a fixed tune using a revolving cylinder or disc set with pins to pluck the teeth of a metal comb. Music boxes come in various shapes; however, they are comprised primarily of two parts – the “box” or casing, and the musical movement. The movement consists of the following parts¹:

List of Parts

1. Base-plate
2. Turning mechanism (usually a spring-housing (consisting of a spring motor and a key), but occasionally just a key connected directly to the cylinder) – typically located outside the box
3. “Programmed” cylinder (or disc)
4. Tuned comb

Visual Aid (Figure 1)



Figure 1

Explanation of function

The base-plate provides a foundation to anchor the other pieces. The user activates the music-box by winding a key that is either attached directly to the cylinder (in which case the manual turning of the lever causes the cylinder to rotate), or else to a spring motor attached to the cylinder. In the case of the spring motor, turning the key winds the spring motor. When the user releases the key/lever, the spring begins to unwind, causing the cylinder (or disc) to turn. The cylinder is set (“programmed”) with pins spaced at calculated intervals and locations. As it turns, these pins pluck the tuned teeth of the comb, causing them to vibrate and emit sound.²

A box (or similar container) houses the entire musical movement and amplifies the sound it makes. The box may include additional decoration (e.g., a mechanical ballerina).

¹ Aggregate list from the following websites:

<http://www.musicboxattic.com/leabmubo.html> | http://en.wikipedia.org/wiki/Music_box#Music_box_elements

² Based on my own observations; however, I fact-checked it against the following references:

http://en.wikisource.org/wiki/1911_Encyclop%C3%A6dia_Britannica/Musical-box | <http://www.themusicboxman.com/history.html>