The History Center's "Talking Machine"

"A living history to the sounds of the past."

- The term "talking machine" was used in the early days of sound reproducing devices. It is now called a "phonograph."
- The museum's talking machine is a Columbia Disc Graphophone Type BH made in 1909. The term "graphophone" was Columbia's trade name for their version of the "phonograph." They were also known as "gramophones."
- ✓ Many early "78 RPM" records were 10 inches in diameter and pressed using a shellac-based resin. They were made between 1900 and 1960.



- ✓ It contains no electricity or batteries, only a wind-up, clock-like mechanism that rotates the records at a 78 RPM rate.
- ✓ Its nickel-plated brass "petal horn" projected its rich sound into the room.
- ✓ Nickel-plated steel needles were used. Needles came in 3 different diameters that produced either loud, medium, or soft tones.
- ✓ Attached to the "soundbox", shown at right, the point of the needle rides in the grooves on the record. As the record rotates, the needle vibrates back & forth and transmits vibrations to the diaphragm that converts mechanical energy to acoustical energy (sound waves). The diaphragm is attached to the tone arm, a moveable hollow tube that conducts the sound to the horn that finally amplifies a rich sound into the room.



- ✓ There were no design standards for producing 78 records that resulted in records, so different groove widths and depths were not uncommon. Therefore, needle wear would conform to the unique grooves on a single record. This suggests that a new needle be used for each record played for the best sound.
- ✓ Most "78s" are 2-sided the earliest versions were one sided so had much less music per record.
- ✓ A clean, semi-wet sponge is used to clean the records. They are then dried thoroughly with paper towels before stacking or storing.