2004

Apparatus for studying wave motion and sound at the University of Nebraska– Lincoln's “Historical Scientific Instrument Gallery”

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The University of Nebraska–Lincoln's "Historical Scientific Instrument Gallery," compiled by the second author in 1998, contains approximately 700 inventoried items and may be visited on-line at *http://physics.unl.edu/outreach/histinstr/*. Amidst the collection are several acoustical instruments that were used in the early 1900s. These include equipment that demonstrate wave motion (traveling wave machine, mercury ripple dish, vibration microscope), wave interference (interference machine), resonance conditions (Helmholtz resonators, vibrating rods, singing flames, sonometer), and sound generation (Galton's whistles, high-frequency tuning forks, large tuning forks, organ pipes, siren saw). A review of the equipment and the history of their use at the University of Nebraska are discussed. Much of the equipment was superbly manufactured by the Max Kohl/Chemnitz Company in Germany and Rudolph Koenig in France. Pages from the Max Kohl/Chemnitz equipment catalogs of 1910 and 1925 helped to characterize several of the pieces and are shown in this presentation.

Session 2pED

Education in Acoustics: Apparatus for Teaching Acoustics, 1929 and Before

Thomas D. Rossing, Cochair
Physics Department, Northern Illinois University, De Kalb, Illinois 60115

Peter L. Hoekje, Cochair
Department of Physics and Astronomy, Baldwin-Wallace College, 275 Eastland Road, Berea, Ohio 44017

Chair's Introduction—1:30

Invited Papers

1:35

2pED1. Apparatus for studying wave motion and sound at the University of Nebraska–Lincoln's "Historical Scientific Instrument Gallery." Lily M. Wang (Architectural Eng. Prog., Univ. of Nebraska, Peter Kiewit Inst., Omaha, NE 68182-0681, lwang4@unl.edu) and M. Eugene Rudd (Univ. of Nebraska, Lincoln, NE 68588)

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