

Animation Devices

The Phenakistoscope

Joseph Plateau, a Frenchman, invented the first machine that really created the illusion of sustained movement in 1832. His invention, the phenakistoscope, was a spinning wheel that bears a series of drawn images and viewing gates that frame the viewer's vision of the drawings.

The Zoetrope and Praxinoscope

The Zoetrope and Praxinoscope. A new generation of inventors refined and extended Mr. Plateau's device. The most ingenious of the new toys were the zoetrope and the praxinoscope. These machines provided more convenient devices for their drawings. Both extended the number of drawings that could be used as well as the duration of the movement itself.

The zoetrope is a revolving drum that has slits in the sides, spaced equally. The viewer is able to catch glimpses of a series of drawings that have been created on a strip of paper and then placed inside the drum by looking through these slits as the drum is spun. The length of the movie is determined by the diameter of the drum. The same drum could present different strips of drawings. Zoetrope literally means, "wheel of life." Pierre Devignes named the device in 1860.

The praxinoscope is based upon a refinement of the zoetrope. The slits are replaced by a set of mirrors that spin in the center of the drum. Emile Reynaud was the inventor of the praxinoscope. In 1892 he opened the world's first movie theater in Paris. Reynaud's Theater Optique projected a movie that was made of individual drawings on a long piece of paper. The show lasted just few minutes. Reynaud's invention was much like the modern film projector.

*Reference: The Animation Book, Kit Laybourne, 1979 Three Rivers Press

Activity:

Zoetrope Movies. Using one of the zoetrope strip patterns, create a 12 frame animated looping strip. The key frames will be the 1st and 6th frame. Then the frames in the middle will be used to make your image change slowly. Make sure that the [1st and 12th] and the [6th and 7th] frames are the same or very similar.