

A vintage movie camera with two large reels and a clapperboard in the foreground. The camera is black and has a textured surface. The reels are large and black. The clapperboard is white with black text and has a black border. The background is a textured, light-colored surface.

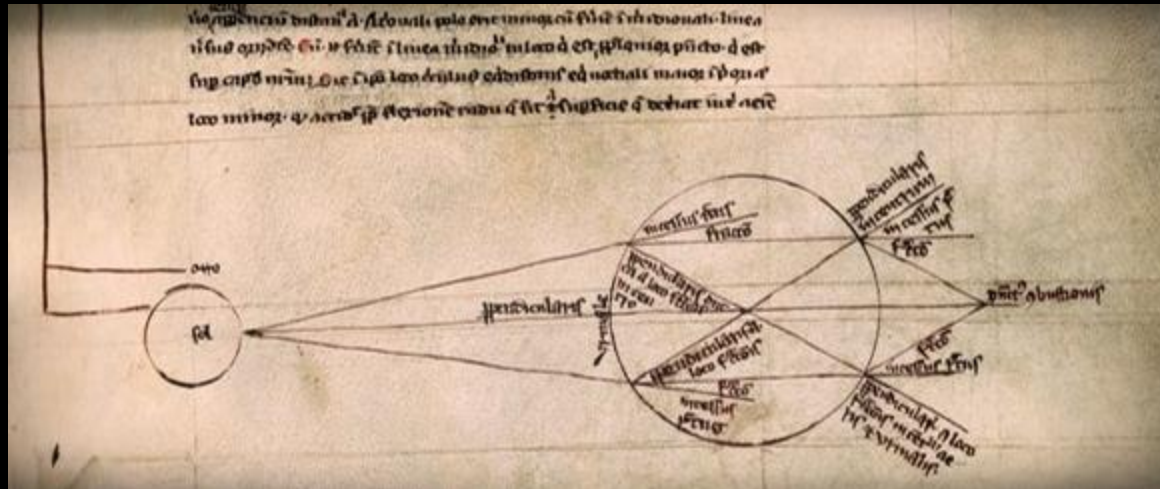
THE TECH THAT GAVE BIRTH TO CINEMA

WITH JIM SOTO



It's difficult to attribute the invention of cinema to a single source. There was no one moment when cinema emerged. Rather, the technology of motion pictures came about through a number of contributors, from the United States, Germany, England, and France.

The Invention of Cinema



Cinema is a complicated medium, and before its invention, several technological requirements had to be met. During the 19th century, scientists explored the properties of vision. An important technical requirement for cinema was the capacity to project a rapid series of photographic images printed on a flexible base to a surface.

Early Technological Breakthroughs



Invention Timeline

1830s: [photography](#)

1840s: telegraph

1850s: Martinsville/sound recording

1877: Edison's phonograph

1889: Celluloid film

1891: Edison's Kinetoscope/graph

1894: Wireless telegraph (Marconi)

This was a very exciting era for media technology



Several optical toys were marketed that gave an illusion of movement by using a small number of drawings, each altered somewhat. In 1832, the optical device that came to be called the Phenakistoscope was created. The Zoetrope, invented in 1833, contained a series of drawings on a narrow strip of paper inside a revolving drum. The Zoetrope was widely sold after 1867, along with other optical toys.



The Phenakistoscope

The Phenakistiscope was the first widespread animation device that created a fluent illusion of motion. Dubbed Fantascopie and Stroboscopische Scheiben by its inventors, it has been known under many other names until the French product name Phénakisticope became common.



The Zoopraxiscope

The Zoopraxiscope was an early device for displaying motion pictures. Created by photographic pioneer Eadweard Muybridge in 1879, it may be considered the first movie projector.

The Zoopraxiscope projected images from rotating glass disks in rapid succession to give the impression of motion.



The Kinetoscope

The Kinetoscope is an early motion picture exhibition device. The Kinetoscope was designed for films to be viewed by one individual at a time through a peephole viewer window at the top of the device.

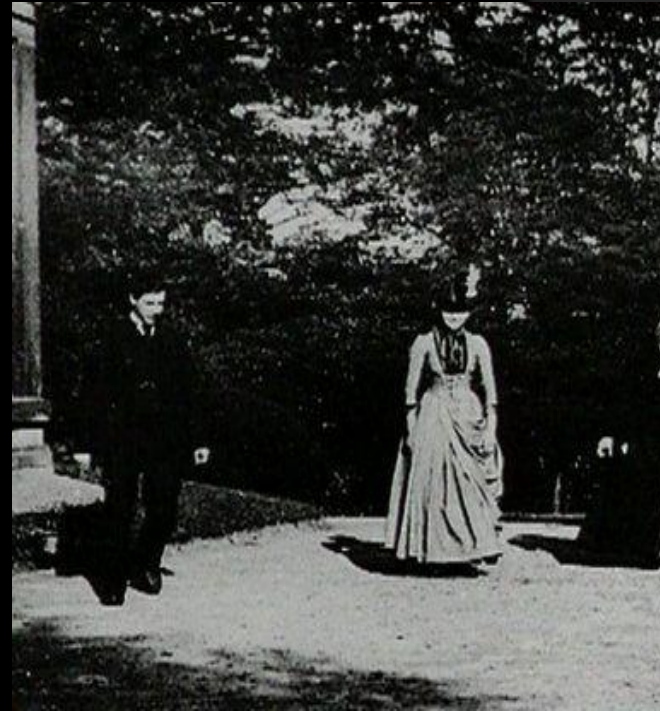


Celluloid

Film stock is a medium used for recording motion pictures. It is a strip of transparent plastic film base coated on one side with a gelatin emulsion containing microscopically small light-sensitive silver halide crystals. The first transparent and flexible film base material was celluloid, which was discovered and refined for photographic use by John Carbutt, Hannibal Goodwin, and George Eastman. Eastman Kodak made celluloid film commercially available in 1889.

Who Was First?

A debate rages on about who made the very first motion picture. Here are two.



RESHOOT

1. Explain the importance of technology in the emergence of cinematography.
2. Who is responsible for the existence of cinematography.
3. Choose one of the technological breakthroughs discussed in this lesson and explain in which way it aided the development of cinematography.
4. Choose one of the four inventions discussed in this lesson and explain how it works.



Next:

CAMERAS

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