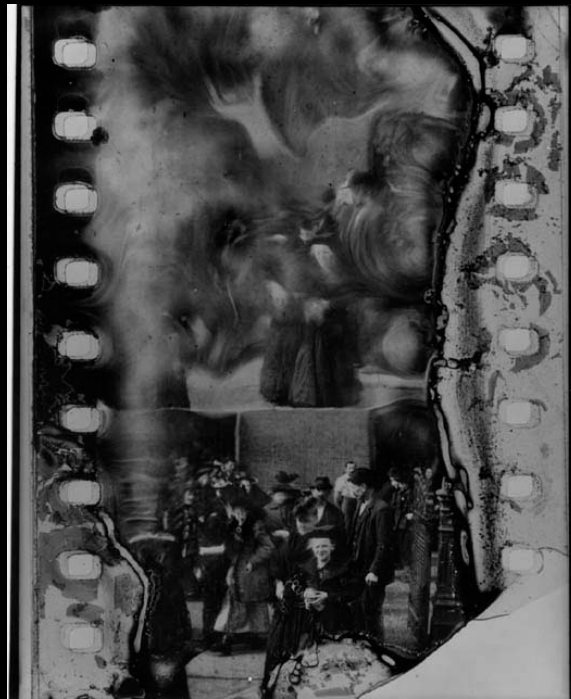


Jaakko Seppälä

Doing Film History & The Origins of the Movies



Doing Film History

- Film history is one of the three major branches of film studies (the other two are theory and criticism)
- Why study old films?
 - Movies bear the traces of the societies that made and consumed them
 - Old movies force us to acknowledge that films can be radically different from what we are used to
 - Film history helps us to understand what cinema is, has been and can be
- Film history attempts to explain the changes that have occurred to the cinema since its origins, as well as account for aspects of the cinema that have resisted change

What Film Historians Do?

- There is no film *history*, only film *histories*
 - There is no master narrative that can accommodate everything
- Film historians work from various perspectives and with different interests and purposes
- Film history is not a list of filmmakers and film titles
- Research into film history involves asking a series of *questions* and searching for *evidence* in order to answer them in the course of an *argument*
- Film historians ask *how* and *why* questions because they try to explain a process or state of affairs
- *Who, what, where* and *when* questions are not research programs
- The historian's argument consists of evidence marshaled to create a plausible explanation for an event or state of affairs

Film Historical Evidence

- Arguments about film history rely on evidence
- Film prints are central pieces of evidence
 - Around 80% of all silent cinema is considered lost
 - Quality of the surviving prints is often bad
 - Different versions of the same film
 - Missing scenes
 - Reconstructed films and the questions of authenticity
- Other evidence: trade journals, scripts, production files, memoirs, letters etc.

Explaining the Past

- There is no one correct approach to film history
- Film is and has been a multifaceted phenomenon
- There are distinct types of explanation in film history
 - *Biographical* film history
 - *Aesthetic* film history
 - *Social* film history
 - *Economic* film history
 - *Technological* film history
- There are many possible histories of film, each adopting a different perspective
- These perspectives are often overlapping

Key Questions

- How uses of the film medium have changed and become normalised over time?
- How have the conditions of the film industry affected the uses of the medium?
- How have international trends emerged in the uses of the film medium and in the film market?

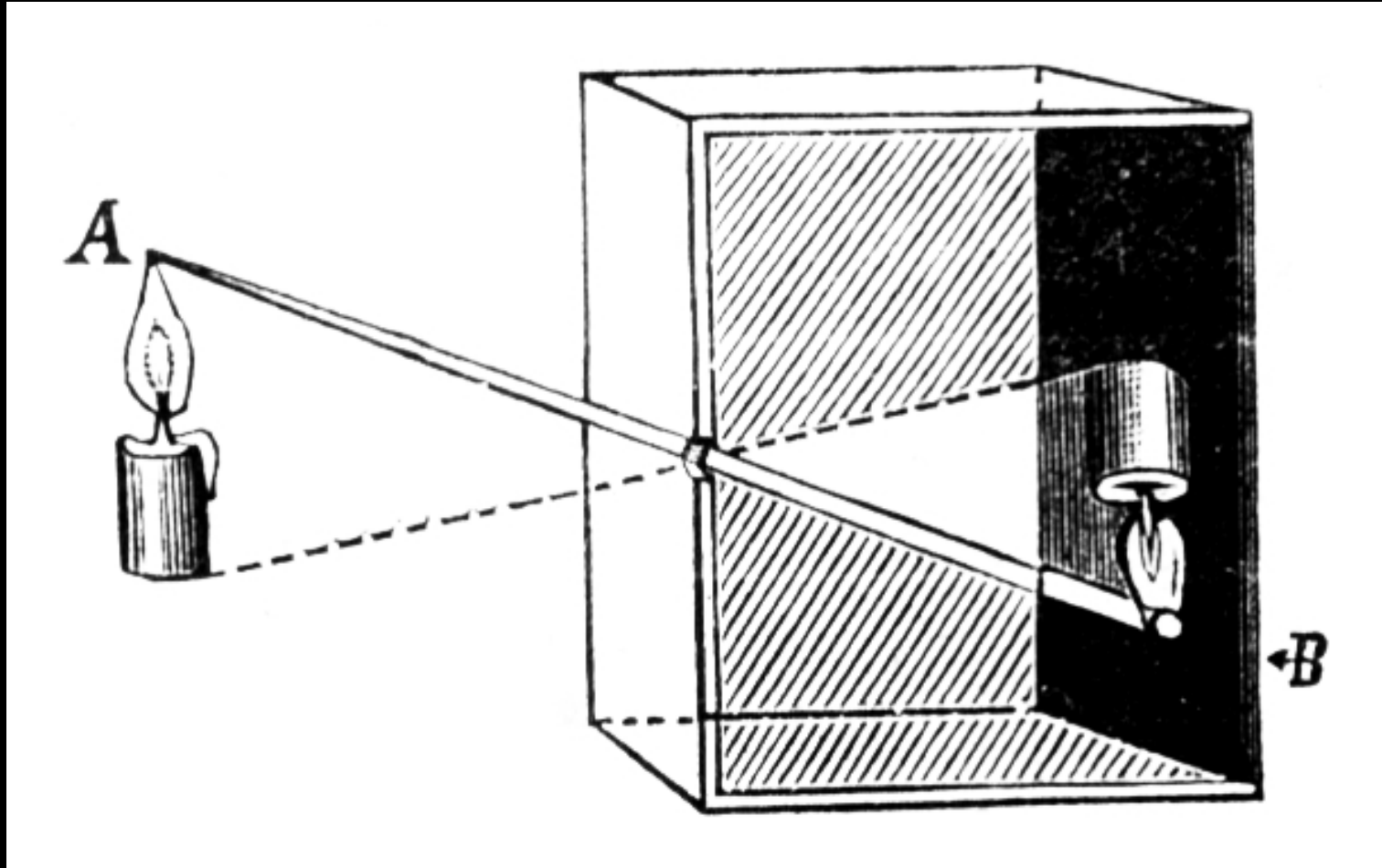
The Origins of the Movies

- The question “who invented cinema” is one on which there will never be a consensus
- Implicit in a linear search for *firsts* is the question *first of what?*
- Accumulation of inventions
- Cinema is a complex sociocultural phenomenon rather than something one invents
- Cinema has a prehistory

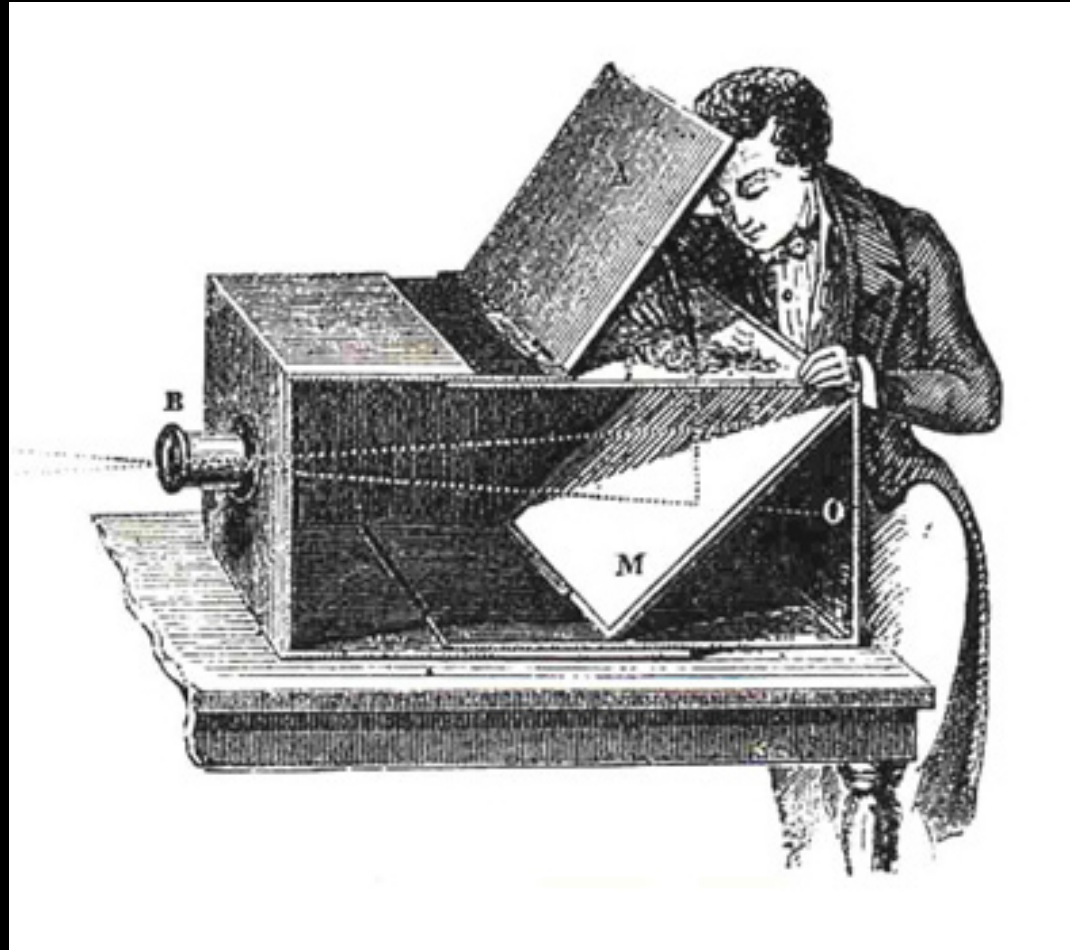
Camera Obscura

- Camera obscura (*dark room*) is one of the prerequisites of cinema
- The phenomenon has been known for hundreds of years
- The device consists of a box or a room with a tiny hole in one side. Light from an external scene travels through the pinhole and strikes a surface inside where it is reproduced upside-down but with colour and perspective perceived
- Camera obscura creates motion pictures
- In the 16th century spectacles were staged for audiences sitting inside camera obscuras

Camera obscura

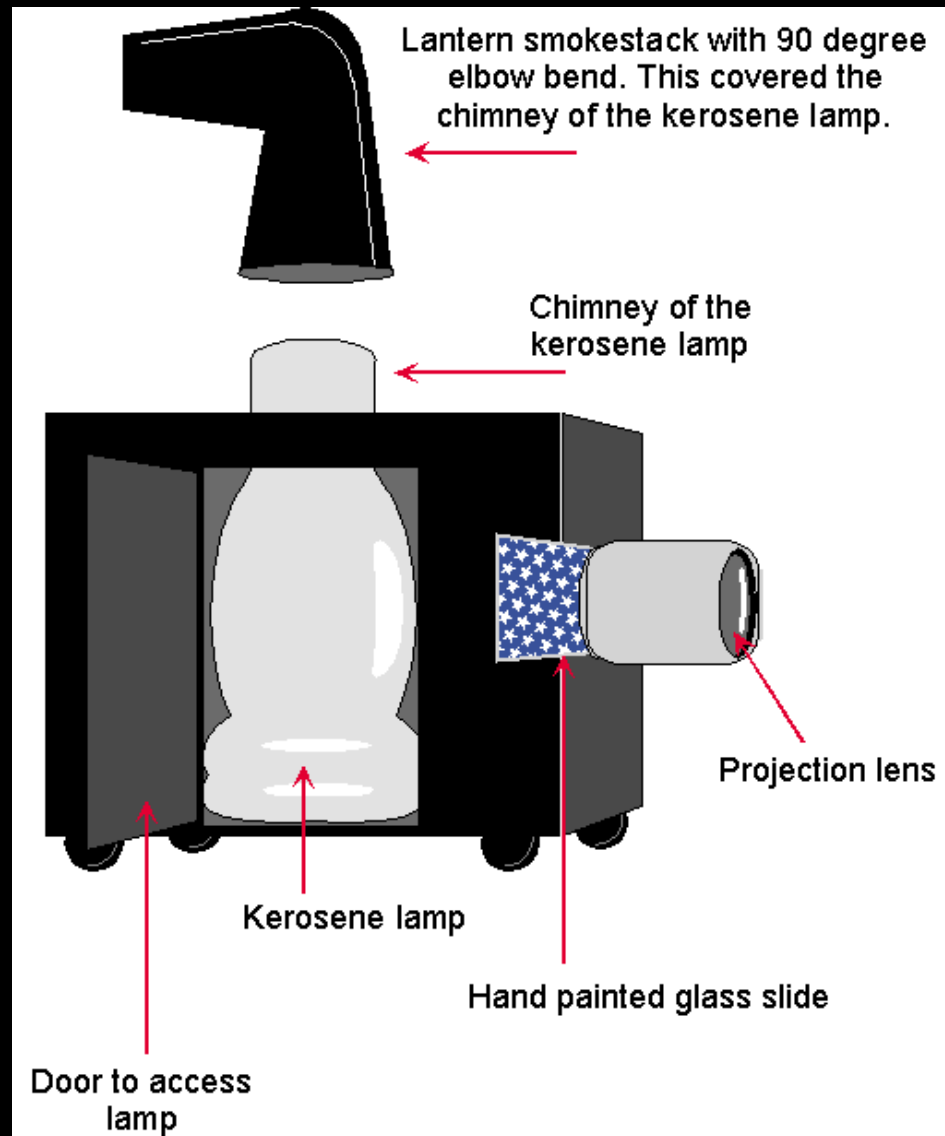


Artist and his camera obscura



Laterna Magica

- The magic lantern became known in the 17th century
- It is the predecessor of the film projector
- The magic lantern is an optical device for projecting images painted on glass slides
- These are still images
- There were various ways in which these images could be moved
- Magic lanterns were used in storytelling and education



Magic lantern



Peep Shows

- A peep show is an exhibition of pictures, objects or even people inside a box viewed through a small hole
- Peep boxes date back to the renaissance era
- The show presented was accompanied by spoken recitation that explained or dramatised what was inside
- Images were often moved with leverages
- The world of peep box views was more realistic than that of magic lanterns
- In the 19th century peep show salons (cosmoramas) were opened in large cities of Europe and The United States

Peep box



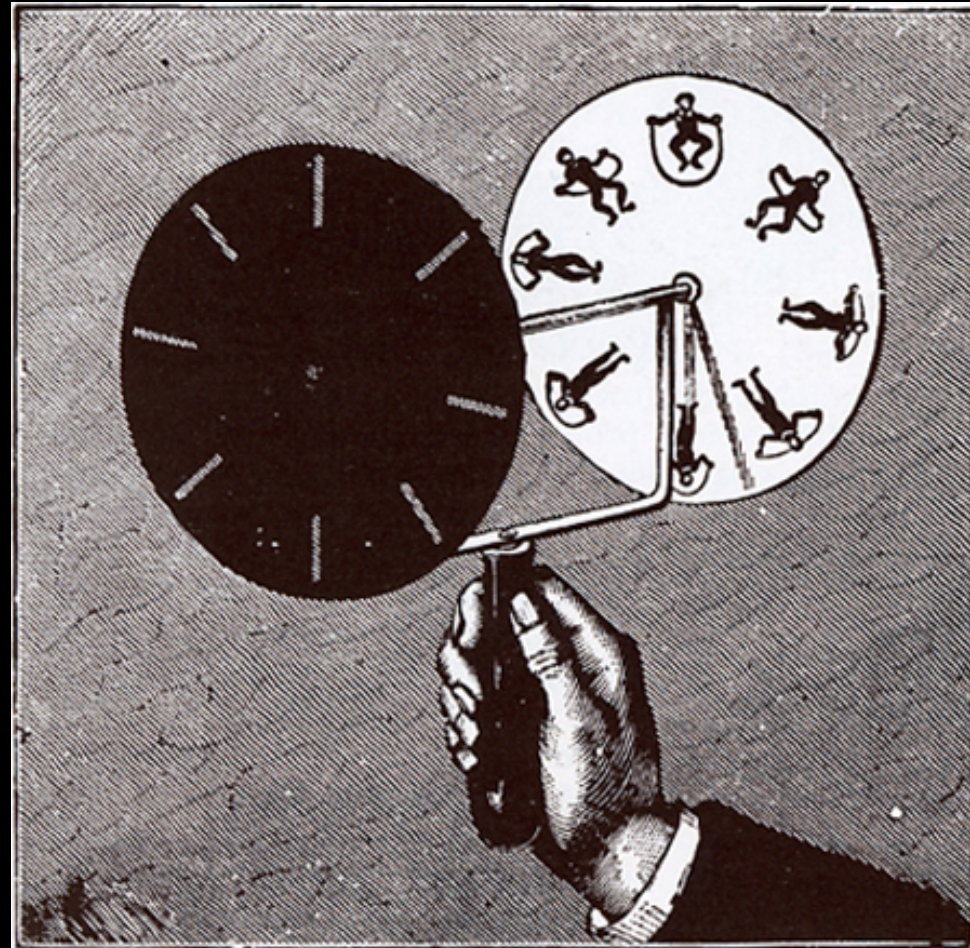
A peep box image



Optical Toys and Illusions

- One precondition for motion pictures was the realisation that the human eye will perceive motion if a series of slightly different images is placed before it in rapid succession
- In the 19th century various optical toys were marketed that gave an illusion of movement by using a small number of drawings, each altered somewhat

Phenakistoscope



Zoetrope

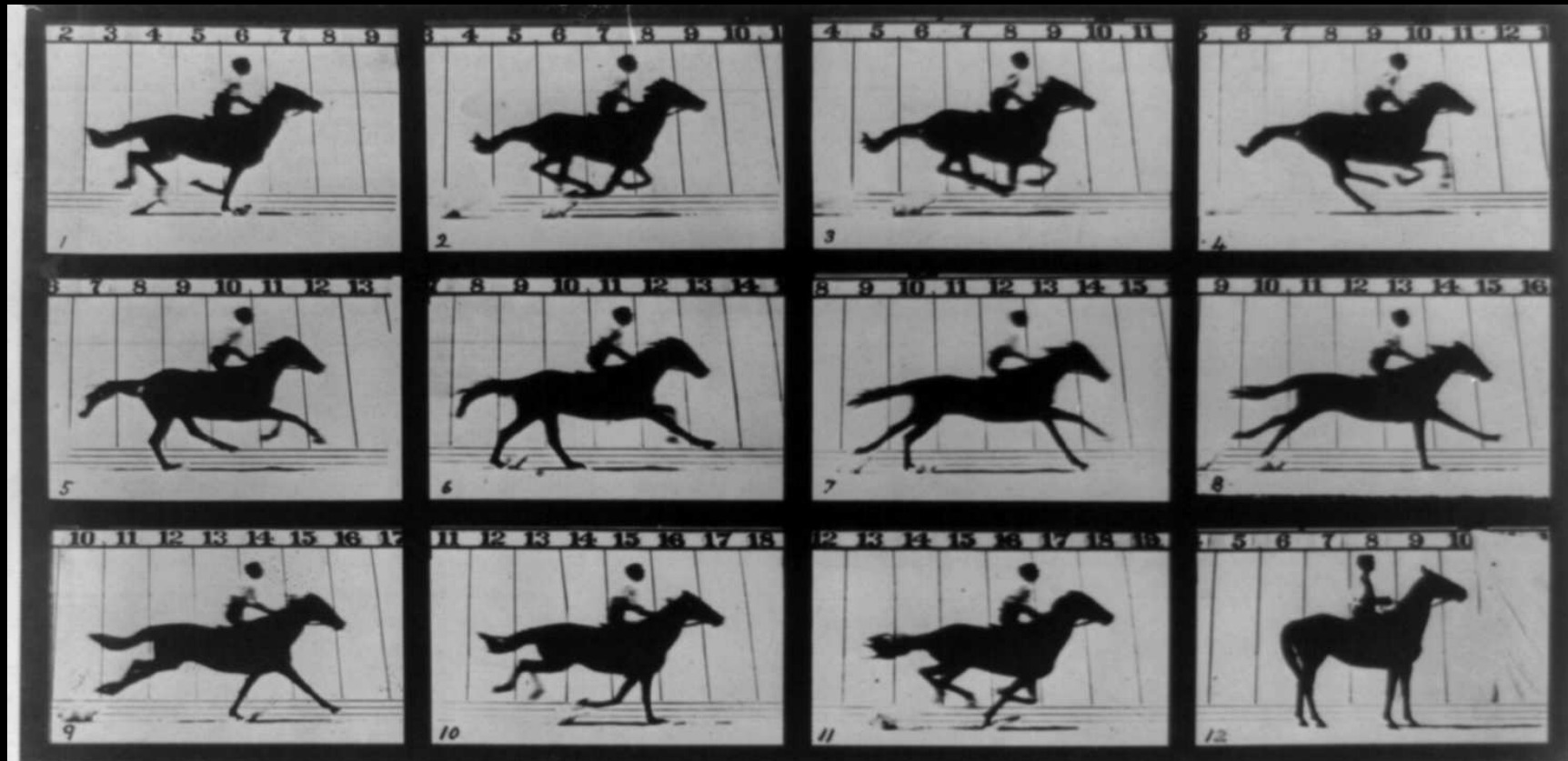


Chronophotography

- One important prerequisite for the invention of cinema was the ability to use photography to make successive pictures on a clear surface
- In 1826 exposure time was eight hours
- Split-second exposure times did not become feasible until the late 1870s
- In the late 19th century scientists were interested analysing motion
- Chronophotography ("pictures of time")

Eadweard Muybridge

- English photographer who used multiple cameras to capture motion
- “Do all four of horse’s hooves leave the ground at the same time during a gallop?”
- In 1878 Muybridge set up a row of twelve cameras to take photographs of a galloping horse
- He invented the zoopraxiscope (an early projector)
- In 1893 Muybridge used his zoopraxiscope to exhibit moving pictures to a paying public
- These were drawings copied from photographs onto a revolving disc



Copyright, 1878, by MUYBRIDGE.

MORSE'S Gallery, 417 Montgomery St., San Francisco

THE HORSE IN MOTION.

Patent for apparatus applied for.

Illustrated by
MUYBRIDGE.

AUTOMATIC ELECTRO-PHOTOGRAPH.

"SALLIE GARDNER," owned by LELAND STANFORD; ridden by G. DOMM, running at a 1.40 gait over the Palo Alto track, 19th June, 1878.

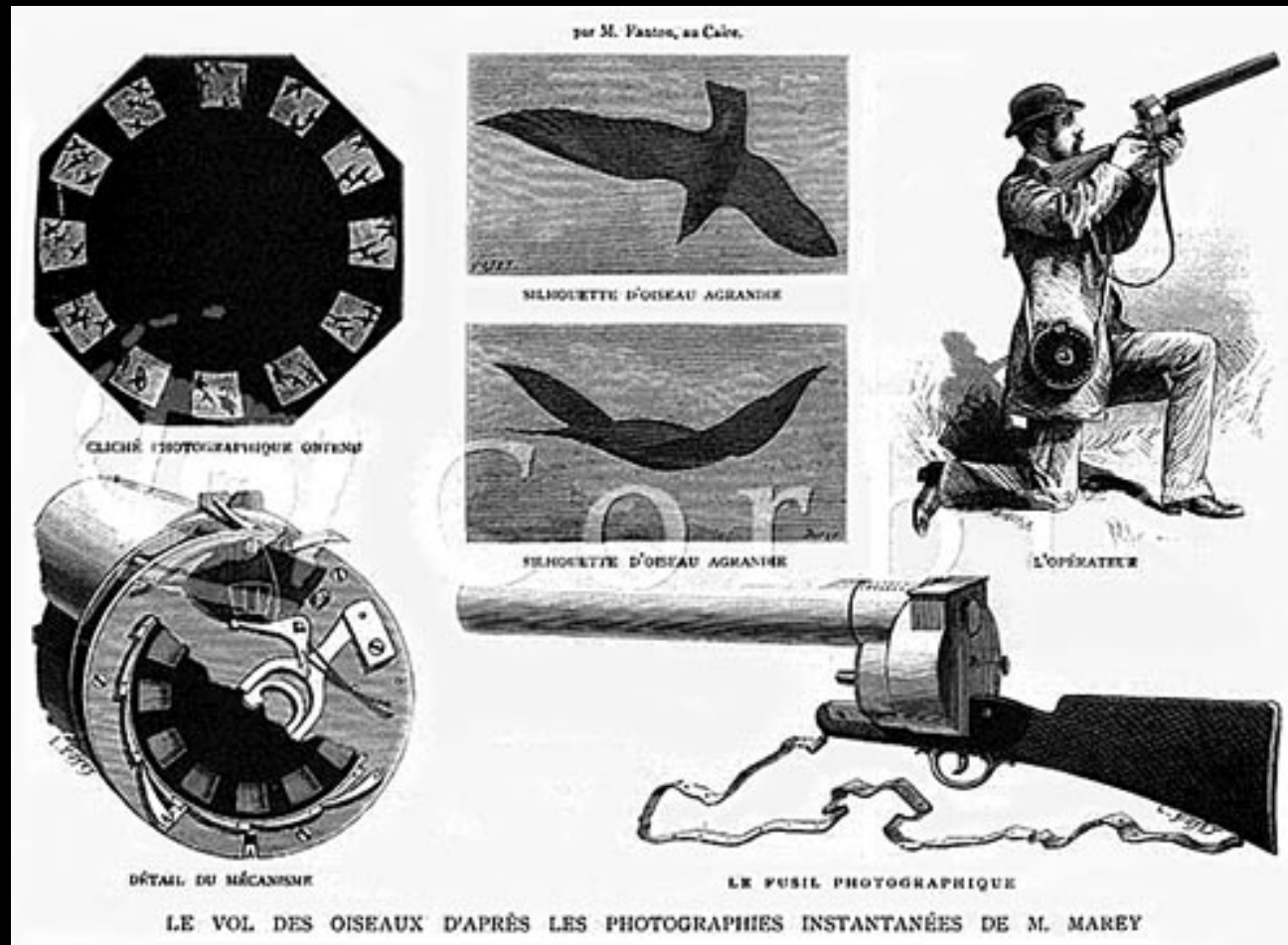
The negatives of these photographs were made at intervals of twenty-seven inches of distance, and about the twenty-fifth part of a second of time; they illustrate consecutive positions assumed during a single stride of the mare. The vertical lines were twenty-seven inches apart; the horizontal lines represent elevations of four inches each.

The negatives were each exposed during the two-thousandth part of a second, and are absolutely "untouched."

Étienne-Jules Marey

- French physiologist who studied movements of animals and humans
- He was inspired by Muybridge's work
- In 1882 he invented the photographic rifle that exposed twelve images in one second
- All the pictures were recorded on the same frame
- In 1892 Marey publicly demonstrated his chronophotographic projector
- Whereas Muybridge screened drawings, Marey screened photographs

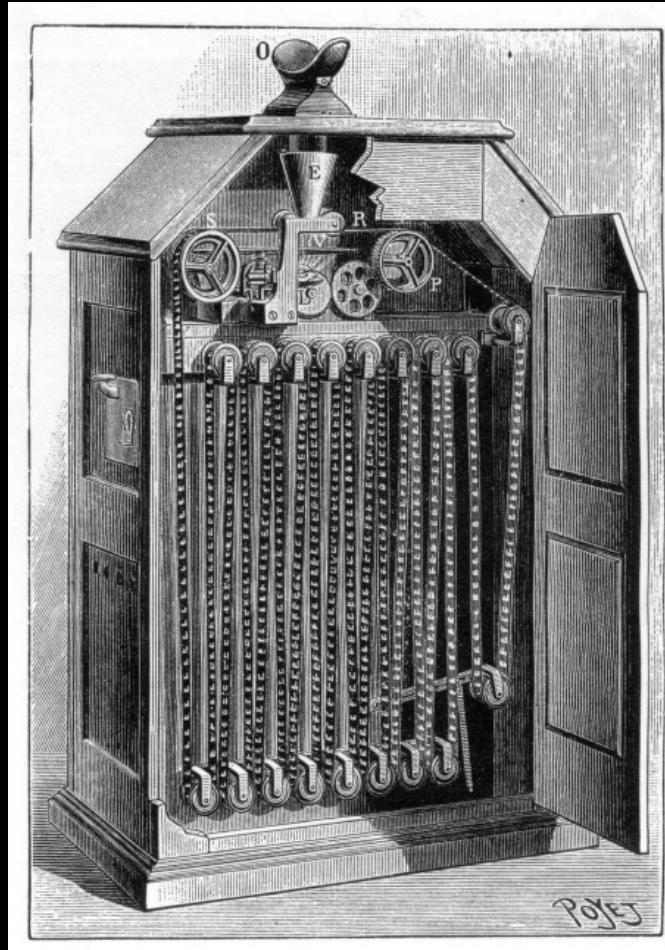
The Photographic Rifle



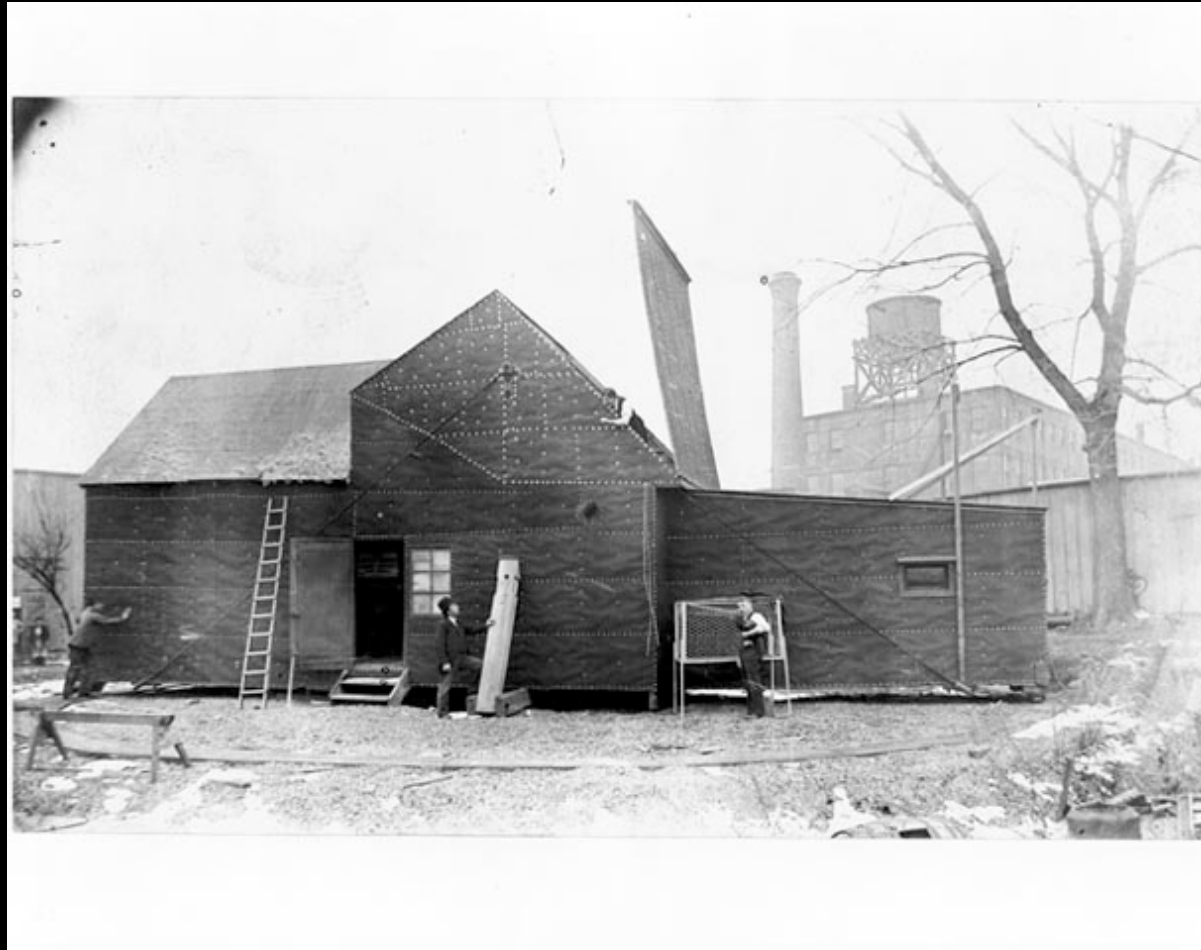
The Edison Manufacturing Company

- Thomas Alva Edison and William Kennedy Laurie Dickson invented the *kinetograph* and the *kinetoscope*
- The kinetograph was a movie camera that used 35mm film (46 fps)
- The kinetoscope was a peephole device that ran the film around a series of rollers
- By 1891, the kinetograph camera and the kinetoscope viewing box were ready to be patented

Kinetoscope



The Black Maria



The First American Film Studio

- The Edison Company built a studio and named it The Black Maria
- It was ready for film production in 1893
- Early Edison films run only twenty seconds
- These films feature well-known sport figures, scenes from noted vaudeville acts, dancing girls, acrobats and comic skits
- On April 14 1894 the first kinetoscope parlour opened in New York
- Edison bought rights to a projector and named it *the vitascope*
- First vitascope screenings took place in New York in 1896

Kinetoscope parlor



Kinetophone



EDISON'S GREATEST
MARVEL

THE VITASCOPE

"Wonderful is The Vitascope. Pictures life size
and full of color. Makes a thrilling show."
NEWYORK HERALD, April 24, '96.



Louis and August Lumière

- The brothers invented the Cinématograph (used for shooting, printing and screening films)
- They patented this machine 13th of February in 1895
- The cinématographe used 35 mm film stock (16 fps)
- Workers Leaving the Factory was shot in March 1895
- In 22nd of March 1895 the film was screened to scientific and commercial groups
- On December 28 1895 films were screened for a paying audience in the Gran Café in Paris

Cinématographe



The Lumière Company

- The brothers invented a film projection system that helped make the cinema commercially viable enterprise internationally
- The early films were approximately one minute long
- These were mainly representations of daily life
- The cinématographe was an enormous success
- “The cinema is an invention without future”, the brothers believed
- The Lumière Company sent its representatives all over the world
- The representatives screened films and shot new ones

Robert William Paul

- Englishman R. W. Paul was well-known producer of photographic equipments
- He was asked to make duplicate kinoscopes
- Edison had never patented his kinoscope outside the United States
- Paul was free to make similar devices
- By March 1895 Paul and his partner Brit Acres had invented a functional camera (based on Edison's machines)
- Paul later invented a film projector
- Paul sold his machines rather than leasing them and by so doing he speeded up the spread of the new industry

“Film’s origin sprang from a variety of pursuits and passions - just like the art of the cinema today, it depended on a mix of art and science, business and technology - and from myriad remarkable people who, sometimes working together, sometimes competing fiercely, were responsible for the conception of moving pictures.”

– Peter Kobel