

First Words

The Birth of Sound Cinema, 1895 – 1929

Wednesday, September 23, 2010
Northwest Film Forum

Co-Presented by The Sprocket Society
Seattle, WA
www.sprocketsociety.org

Origins

“In the year 1887, the idea occurred to me that it was possible to devise an instrument which should do for the eye what the phonograph does for the ear, and that by a combination of the two all motion and sound could be recorded and reproduced simultaneously. ...I believe that in coming years by my own work and that of...others who will doubtlessly enter the field that grand opera can be given at the Metropolitan Opera House at New York [and then shown] without any material change from the original, and with artists and musicians long since dead.”

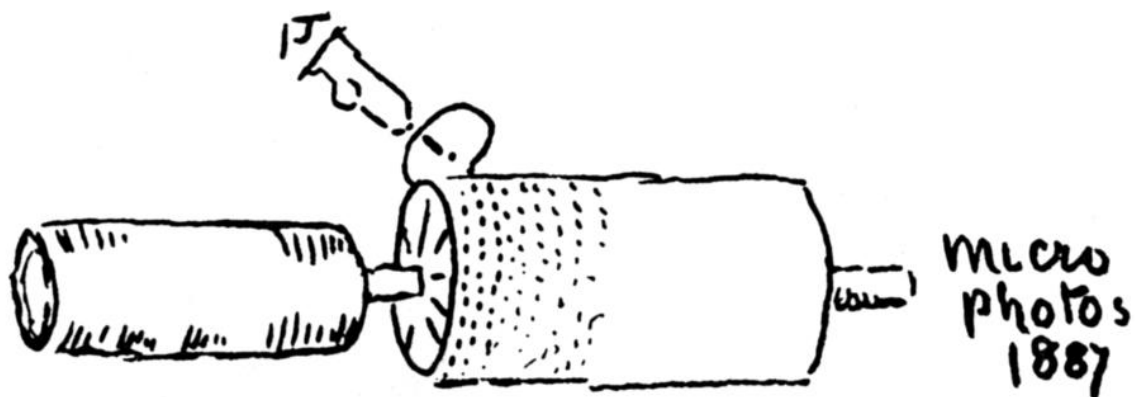
Thomas Edison

Foreword to *History of the Kinetograph, Kinetoscope and Kinetograph* (1894) by WK.L. Dickson and Antonia Dickson.

“My intention is to have such a happy combination of electricity and photography that a man can sit in his own parlor and see reproduced on a screen the forms of the players in an opera produced on a distant stage, and, as he sees their movements, he will hear the sound of their voices as they talk or sing or laugh... [B]efore long it will be possible to apply this system to prize fights and boxing exhibitions. The whole scene with the comments of the spectators, the talk of the seconds, the noise of the blows, and so on will be faithfully transferred.”

Thomas Edison

Remarks at the private demonstration of the (silent) Kinetoscope prototype
The Federation of Women's Clubs, May 20, 1891



Edison's first idea as to synchronization

Sketch of Edison's first method of synchronizing phonograph with picture records.

This Evening's Film Selections

All films in this program were originally shot on 35mm, but are shown tonight from 16mm duplicate prints. All soundtracks are the original recordings (except for *Little Tich*, which is a recreation), but they have obviously been converted to modern optical sound film technology. Sound quality and volume will vary, reflecting not only the original technologies, but also in some cases the decay of the source elements prior to preservation.

[Dickson Experimental Sound Film]

(The Edison Company, ca. fall 1894 – spring 1895) < 1 min.

Experimental sound-on-cylinder

Directed by William K.L. Dickson, photographed by William Heise.

A laboratory experiment, never officially released. The audio was located in 1998, then restored and resynchronized by Walter Murch in 2000. The man playing the violin is Dickson himself.

[Lyman Howe Re-enactments]

(ca. 1897) ~3 min.

Early films projected and accompanied by wind-up acoustic phonographs. This evening's accompaniment is in the style of traveling film exhibitor Lyman Howe, provided by Jeffery Taylor and Robert Millis using 78rpm records on hand-wound acoustic phonographs. *Note:* these prints are not time-corrected from their original +/- 40 frames per second speed, and thus appear in slow motion.

- *Fun in a Chinese Laundry* (Edison Manufacturing Co., Nov. 1894)
- *Fatima's Muscle Dance*, aka *Fatima's Coochee-Coochee Dance* (Edison Manufacturing Co., Jul. 1896) – both the original and censored versions
- *The Black Diamond Express* (Edison Manufacturing Co., Dec. 1896)
- *A Morning Bath* (Edison Manufacturing Co., Oct. 1896)

Little Tich et ses 'Big Boots' (*Little Tich and his 'Big Boots'*)

(Phono-Cinéma-Théâtre, 1900) 3 min.

Lioret sound-on-cylinder, with live sound effects (simulated)

Directed by Clément Maurice Gratioulet.

Sound process developed by Clément Maurice Gratioulet (an associate of the Lumière brothers) and Henri Lioret, who had earlier created talking dolls that used miniature cylinder phonographs embedded inside. The actors would first record the audio, then lip-sync to it before the camera. In some cases, only music would be played while sound effects were performed live. This film is one of those, and the soundtrack is a recreation. The Phono-Cinéma-Théâtre films debuted at the Paris Exhibition, and later toured Europe.

Nursery Favorites

(American Talking Picture Co. [Edison/Keith-Albee], early 1913) 9 min.

Kinetophone sound-on-cylinder

Directed by Allen Ramsey (?), cinematography by Joe Physiog. With the Edison Players Quartette Orchestra, and Edna Flugrath.

One of the few surviving examples of films made for Edison's second Kinetophone, 1912-1915.

Casey at the Bat

(DeForest Phonofilm, 1922) 6 min.

DeForest-Case sound-on-film

With William DeWolf Hopper

An early DeForest Phonofilm, featuring the man who popularized Ernest Thayer's 1888 poem in more than 10,000 live performances. Lee DeForest, inventor of the Audion tube (which made electric amplification possible), was the first to produce sound-on-film motion pictures that were widely shown. Despite a network of theaters throughout the East Coast, New England, the Midwest and, later, Europe, the Phonofilm company collapsed in debt by 1926, just as rival systems were achieving success.

Noble Sissle and Eubie Blake Sing Snappy Songs (aka *Snappy Tunes*)

(DeForest Phonofilm, 1923) 6 min.

DeForest-Case sound-on-film

Some of the very first jazz music to be filmed, featuring legendary artists. The only surviving copy had deteriorated before its discovery, causing the poor image and sound quality of this print.

Sweet Adeline

(DeForest Phonofilm; May 1, 1926) 3 min.

DeForest-Case sound-on-film

Directed by Dick Heumer. Animated by Berny Wolf & Dave Fleischer.

Please follow the Bouncing Ball and sing along. The loudest voice wins!

The New York brothers Max and Dave Fleischer revolutionized animation and were also the first to produce sound cartoons in 1924, five years before Disney's *Steamboat Willie*. Many of the 35 cartoons made for Phonofilm were sing-alongs like this one. It was for these that they invented the now-iconic Bouncing Ball.

The Voice from the Screen

(Warner Brothers, October 27, 1926) ~12 min.

Vitaphone sound-on-disc

A technical demonstration film, prepared for a meeting of the New York Electrical Society. A month prior, Vitaphone had premiered at a gala screening of *Don Juan* starring John Barrymore, plus a program of shorts (heavy with opera, in a bid for legitimacy).

[Promotional film for *The Jazz Singer*]

(Warner Brothers, 1927) 7 min.

Vitaphone sound-on-disc

With your host John Miljan. Shown in the very first Vitaphone-equipped theaters shortly after the initial release of the feature.

George Bernard Shaw Talks for Movietone News

aka *George Bernard Shaw, First Appearance in America*

(Fox Case Movietone; June 25, 1928) 5 min.

Case sound-on-film

Theodore Case was a millionaire inventor who developed key technology for DeForest Phonofilm and, later, his own superior sound-on-film system. Relations with DeForest became strained over money owed and DeForest's failure to provide credit to Case as required by their contract. Eventually, Case split with DeForest and made a deal with William Fox. This became the basis for what became known as Fox Movietone and, ultimately, the industry standard. Movietone produced the first sound newsreels, many of which were interviews with famous people, like this one.

Sir Arthur Conan Doyle

(Fox Case Movietone, summer 1927) 11 min.

Case sound-on-film

Produced by Jack Connolly, photographed by Ben Miggins, sound crew: Harry Squires, D.F. Whiting, and Harry Kaw.

Another Movietone "interview" short subject. Doyle discusses his character Sherlock Holmes, and his interest in spiritualism.

Hell's Bells

(Walt Disney Productions; Oct. 30, 1929) 7 min.

Powers Cinephone sound-on-film

Directed by Walt Disney, animated by Ub Iwerks, music by Carl Stalling.

An extremely rare example of Disney's very earliest sound cartoons, made just short of a year after *Steamboat Willie* (Nov. 1928). It's also a very unusual one, reflecting more of Iwerks' New York-infused aesthetic than that of Disney's.

Black and Tan (aka *Black and Tan Fantasy*)

(RKO Radio Pictures; Dec. 8, 1929) 19 min.

RCA Photophone sound-on-film

Directed & written by Dudley Murphy, art direction by Ernst Fegté, cinematography by Dal Clawson.

With Duke Ellington and His Orchestra, Fredi Washington, and the Hall Johnson Choir.

One of the iconic jazz films, it also represents a hint of the artistic promise that lay ahead for sound film. This same year, Murphy also directed *St. Louis Blues*, which featured Bessie Smith's only film appearance. In 1924, he collaborated with Fernand Léger to create the Surrealist film *Ballet Mécanique*.

Sources and Suggested Reading

A topic long neglected, in recent years there has been renewed research, spurred in part by the 80th anniversary of *The Jazz Singer*. However, much of this work remains Amero-centric (especially in English), and the history of the very earliest systems remains woefully under-documented. For access to books and archived periodicals, visit (and support) the stacks and microforms of your local public and state-funded university libraries. When seeking to buy used, out of print or rare books, we suggest using the <http://www.bookfinder.com/> search engine.

Filmography

“Early Sound Films of the Silent Era.” (The Silent Era [web site], updated periodically.) A thorough, annotated filmography of sound films released before *The Jazz Singer* (1927). Online only at <http://www.silentera.com/PSFL/indexes/earlySoundFilms.html>

Contemporaneous Books and Memoirs

- W.K.L. (William Kennedy Laurie) Dickson & Antonia Dickson. *History of the Kinetograph and Kinetophone*. (Albert Brunn, 1895. Facsimile edition: Museum of Modern Art, 2000.) Edison’s top man on motion pictures gives his first-hand account. Short (less than 50 pages).
- E.I. (Earl I.) Sponable. “Historical Development of Sound Films.” *Journal of the Society of Motion Picture Engineers*, vol. 48, nos. 4–5 (April/May, 1947). An essential, detailed chronology by a direct participant, drawing on and quoting extensively from the papers of his boss, Theodore Case, as well as patent records, and other original documentation – even travel itineraries. Archived in full online at <http://members.optushome.com.au/picturepalace/FilmHistory.html>
- Harold B. Franklin. *Sound Motion Pictures from the Laboratory to Their Presentation*. (Doubleday, Doran, 1929)
- Fitzhugh Green. *The Film Finds Its Tongue*. (G.P. Putnam's Sons, 1929. Reprinted: B. Blom [NY], 1971.)
- Walter B. Pitkin & William M. Marston. *The Art of Sound Pictures*. (Appleton [NY], 1930)
- Bernard Brown. *Talking Pictures. A Practical and Popular Account of the Principles of Construction and Operation of the Apparatus Used in Making and Showing Sound Films*. (Sir Isaac Pitman & Sons [London], 1932. New Era Publishing Co., 1933.)
- Raymond Fielding, ed. *A Technological History of Motion Pictures and Television: An Anthology from the Pages of the Journal of the Society of the Motion Picture and Television Engineers*. (Univ. of California Press, 1967. Second printing, 1974.) Profusely illustrated, facsimile reprints of articles from SMPTE’s official journal, many of them first-hand writings by the original inventors. Includes a short but very worthwhile section on early sound processes, including Edward W. Kellogg’s excellent three-part article (listed below).

General Histories

- Donald Crafton. *The Talkies: American Cinema’s Transition to Sound 1926-1931*. (University of California Press, 1997/1999. *History of the American Cinema*, Vol. 4.) The essential work on the subject. Extremely well-researched, generously illustrated, and copiously footnoted.
- Douglas Gomery. *The Coming of Sound: A History*. (Routledge, 2005) A slim but excellent work that is concise yet knowledgeable thorough, while also contesting some accepted notions (albeit a tad too personally). Extensive endnotes, indexed. Unfortunately, he also betrays a grudge with Crafton.
- Rick Altman. *Silent Film Sound*. (Oxford University Press, 2004) Sumptuously illustrated large-format general history of the subject in general (accompaniments of all sorts, precursors, etc.) with chapters and *passim* devoted to early sound film processes. An outstanding book.

- Richard Abel & Rick Altman, eds. *The Sounds of Early Cinema*. (Indiana University Press, 2001) A wide-ranging anthology of essays and papers examining the topic in a general sense, with a number of pieces specifically on “sound film” topics.
- Scott Eyman. *The Speed of Sound: Hollywood and the Talkie Revolution 1926-1930*. (Simon & Schuster, 1997) A commonly available and fairly decent survey history of the transitional period, though not always 100% accurate.
- Harry M. Geduld. *The Birth of the Talkies: From Edison to Jolson*. (Indiana University Press, 1975) Now dated, for many years this was the standard history.
- Alexander Walker. *The Shattered Silents: How the Talkies Came to Stay*. (William Morrow & Co., 1979) An approachable light history, though now rather dated.
- Charles O'Brien. *Cinema's Conversion to Sound: Technology and Film Style in France and the US*. (Indiana University Press, 2005) Academic monograph; part history, part analysis of technical and aesthetic choices and how each influenced the other.
- Tom Lewis. *Empire of the Air: The Men Who Made Radio*. (HarperCollins, 1991) Developments in radio contributed greatly to sound cinema. A respected history, with extensive material on Lee De Forest.

Biographies

- Maurice Zouary. *De Forest: Father Of The Electronic Revolution*. (1st Books, 2000) A worshipful bio, but based largely on De Forest's personal papers. Includes many rare stills from Phonofilms. Author Zouary saved and donated 40 Phonofilms to the LOC.
- James A. Hijiya. *Lee De Forest and the Fatherhood of Radio*. (Associated University Presses, 1992)
- Stephanie Przybylek. *Breaking the Silence on Film: The History of the Case Research Lab*. (Cayuga Museum of History and Art [NY], 1999) Essential. One of the only books on Theodore Case and his work, and fortunately quite well done though brief. Drawing on Case's papers, archived but long ignored at the Cayuga Museum, on the grounds of the family estate. Available direct from the publisher via the “Gift Shop” at <http://www.cayuganet.org/cayugamuseum/>
- Antonia K. Colella & Luke P. Colella. *Now We're Talking: The Story of Theodore W. Case and Sound-on-film*. (1stBooks, 2003) A very lightweight, pamphlet-length biography by his granddaughter and her son, but one of the only books written about Case. Illustrated with family photos.
- Richard Fleischer. *Out of the Inkwell: Max Fleischer and the Animation Revolution*. (University Press of Kentucky, 2005)

Articles, Essays, and Online

General History

- Mark Ulano. “Moving Pictures That Talk – The early history of film sound.” *Film Sound* (web site), ca. Feb. 2001. Four-part general overview by an Oscar-winning sound engineer. A widely-cited primer. Online at <http://www.filmsound.org/ulano/>
- John G. Frayne. “Motion Picture Sound Recording: A Capsule History.” *Journal of the Audio Engineering Society* [JAES], vol. 24 no. 6 (July/August 1976), pp. 512-516. Illustrated. Archived PDF at the AES web site via <http://bit.ly/cBpEq5>
- Hearing the Movies* (web site). Extensive companion blog for the textbook, includes period press clippings and very much more. <http://hearingthemovies.blogspot.com/>
- Edward W. Kellogg. "History of Sound Motion Pictures." *Journal of the Society of Motion Picture Engineers* [Journal of the SMPTE], volume 64 (1955). Part 1: June, pp. 291-302; Part 2: July, pp. 356-374; and Part 3 (with errata): August, pp. 422-437. Extensive illustrated technical history. A standard reference. Archived PDFs available online at... <http://www.aes.org/aeshc/docs/smpte/movie.sound/kellogg-history1.pdf> ,

<http://www.aes.org/aeshc/docs/smpte/movie.sound/kellogg-history2.pdf> , and
<http://www.aes.org/aeshc/docs/smpte/movie.sound/kellogg-history3.pdf>

Early Film Sound Papers from the *Journal of the Society of Motion Picture Engineers* (SMPTE), 1930–1932 (web site). An extensive PDF archive of numerous scanned articles culled from public domain holdings at [Archive.org](http://archive.org). Spans the final transition period, as the outlying markets adopted sound.
http://homepage.mac.com/craigsmith/smpe_site/SMPE_index.html

International History

Franklin S. Irby. “International Relations in the Sound Picture Field.” *Journal of the Society of Motion Picture Engineers* (SMPE), vol. 15, no. 4 (October, 1930). A contemporaneous survey of sound film-related corporate and patent history to 1930, including a rare overview of developments in Europe. Scanned PDF available via <http://bit.ly/9gfvI8>

“How the Pictures Learned to Talk: The Emergence of German Sound Film.” (Deutsches Filminstitut, undated) A brief overview buried at <http://www.filmportal.de/> or access directly via <http://bit.ly/cIrxHV>

Douglas Gomery. “Economic Struggle and Hollywood Imperialism: Europe Converts to Sound.” *Yale French Studies*, no. 60, Cinema/Sound (1980), pp. 80-93.

Douglas Gomery. “Tri-Ergon, Tobis-Klangfilm, and the Coming of Sound.” *Cinema Journal*, vol. 16 no. 1 (Fall 1976), pp. 51-61.

Jan Olsson. “In and Out of Sync: Swedish Sound Films 1903-1914.” *Film History* (Indiana Univ. Press), vol. 11 no. 4, Special Domitor Issue: Global Experiments in Early Synchronous Sounds (1999), pp. 449-455.

Freda Freiberg. “The Transition to Sound in Japan.” In T. O'Regan & B. Shoemith eds. *History on/and/in Film*. (Perth: History & Film Association of Australia, 1987), pp. 76-80. Archived online at <http://www.filmsound.org/film-sound-history/sound-in-japan.htm>

Edison Kinetophone

Rosalind Rogoff. “Edison's Dream: A Brief History of the Kinetophone,” *Cinema Journal*, vol. 15, no. 2, American Film History (Spring, 1976), pp. 58-68.

Art [Arthur] Shifrin, “Researching and Restoring Pioneer Talking Pictures: The 70th Anniversary of the Theatrical Release of Kinetophone,” *Journal of the Society of Motion Picture and Television Engineers* [Journal of SMPTE], (July, 1983), pp. 739-751.

A.B. [Arthur] Shifrin. “The Trouble with Kinetophone.” *American Cinematographer*, vol. 64 (Sept. 1983), p. 50.

Arthur Shifrin, “Restoration of Kinetophone Sound Motion Pictures,” *Journal of the Audio Engineering Society* [JAES], vol. 31, no. 11 (November 1983), pp. 874-890.

Kinetophone Soundtracks and Actor Auditions. Edison National Historic Site web page. Selection of MP3 recordings of rare original Kinetophone cylinders.

http://www.nps.gov/archive/edis/edisonia/motion_picture.htm

Phonofilms, Lee De Forest, and Theodore Case

Leo Enticknap. “De Forest Phonofilms: A Reappraisal.” *Early Popular Visual Culture*, vol. 4, no. 3 (Nov. 2006), pp. 273-284. Also as PDF via the author's web site:

http://www.enticknap.net/leo/research/de_forest_paper.pdf

Lee De Forest. “The Phonofilm.” *Transactions of the SMPE*, no. 16 (May 1923), pp. 61-75.

E.I. (Earl I.) Sponable. “Historical Development of Sound Films.” *Journal of the Society of Motion Picture Engineers*, vol. 48, nos. 4–5 (April/May, 1947). (See above.)

Brian Yecies. “Transformative Soundscapes: Innovating De Forest Phonofilms Talkies in Australia.” *Scope: An Online Journal of Film & TV Studies* (University of Nottingham, UK), no. 1 (Feb. 2005)

DVDs and Home Video

Discovering Cinema. (Flicker Alley, 2007) An excellent 2-disc set devoted, respectively, to early sound and early color. Disc 1 includes the new feature-length documentary *Learning to Talk*, plus 18 extremely rare restored European and US sound shorts (and fragments) from 1908-1929.

<http://www.flickeralley.com/>

The Amateur as Auteur. Discovering Paradise in Pictures. Volume 6 in the DVD box set, *Unseen Cinema: Early American Avant-Garde Film 1894-1941* (Image Entertainment, 2005) This disc includes seven early sound-on-film tests by Theodore Case and E.I. Sponable, circa 1924-25 (including the famous Singing Duck).

Max Fleischer's Ko-Ko Song Car-Tunes. (Inkwell Images, 2002) DVD-R. A collection of six Fleischer Phonofilm releases from 1925-1926, including early bouncing-ball sing-alongs.

<http://www.inkwellimagesink.com/>

The Jazz Singer, Three-Disc Deluxe Edition. (Warner Video, 2007) The newly-restored feature, plus a raft of documentaries, four hours of early Vitaphone shorts, booklet, etc.

More Treasures from American Film Archives 1894-1931. (NFPF – National Film Preservation Foundation, 2004) This joyfully eclectic 3-disc set includes two early DeForest Phonofilms (with Eddie Cantor and President Calvin Coolidge), Theodore Case's unforgettable *Gus Visser and His Singing Duck*, and other early-sound rarities. Extensive background notes on disc and in a book.

Edison: The Invention of the Movies. (Kino Video/MOMA, 2005) This excellent four-disc set all but ignores Edison's sound films, but a fully restored and synchronized version of the Dickson Experimental Sound Film is included. Generally, disc 1 covers the very earliest film experiments.

The Broadway Melody (1929) (Warner Home Video, 2005) Though bare-bones, this DVD comes with seven rare Metro Movietone shorts and excerpts, in addition to the breakthrough sound musical.

Paris 1900 (1947, dir. Nicole Védres) (Grapevine Video, 2010) DVD-R. The 1952 dubbed English version of *Cinéma Parlant 1900*, a rare "travelogue"/documentary using period footage and narration.

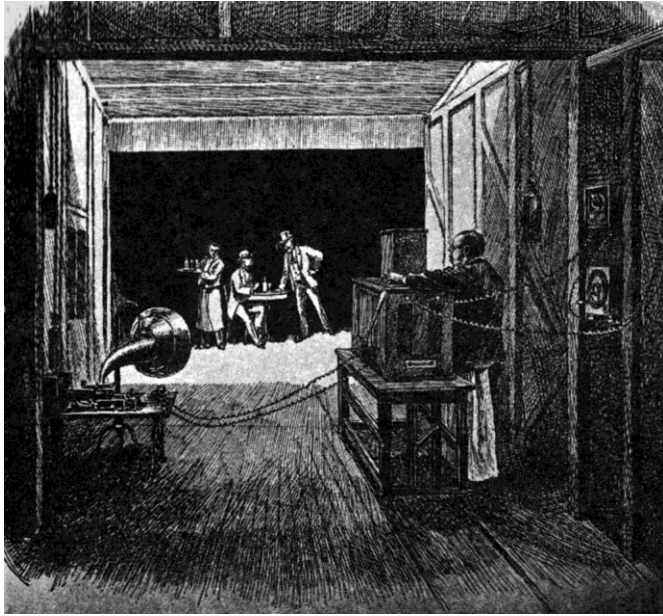
Includes clips from several of the Phono-Cinéma-Théâtre "sync sound" films from 1900.

First Sound of the Movies: The Original Pioneering Sound Motion Pictures by Dr. Lee De Forest (Inkwell Images, 2003) Sadly, now out of print. Includes a short documentary about Phonofilms (as well as Maurice Zouary), plus a number of actual Phonofilms, some of which are included on the same label's *Ko-Ko Song Car-Tunes* DVD. A "Bonus Edition" included a second DVD titled *The Birth of the Talkies*, with an episode of the Joe Franklin Show (NYC) with guests Zouary and Jack Poppelle, as well more early sound films.

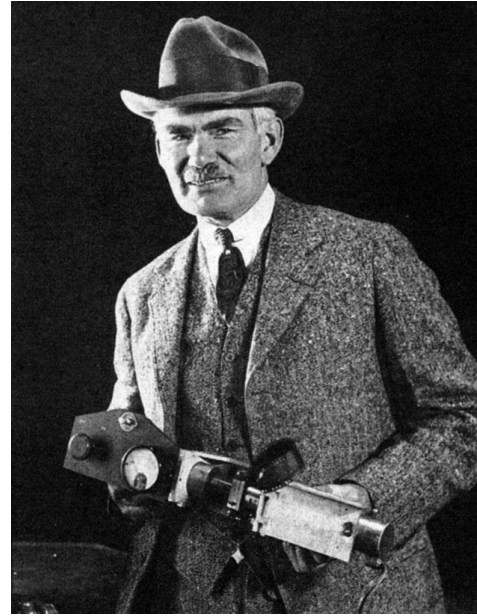
The Kinetoscope and Kinetophone 1894-1896. (George C. Hall, 2006) A very-overpriced 14-minute homebrew DVD-R consisting of a home-video tour of a collector's original Edison machines and their mechanisms, plus three simulated recreations of first-generation Kinetophone films based on pairings suggested in an 1896 Edison catalog.

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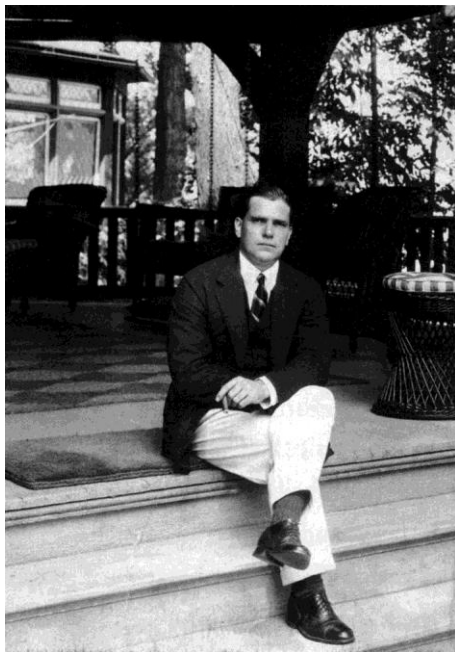
Program notes compiled by Spencer Sundell.



Experimental Edison Kinetophone theater, ca. 1894



Lee DeForest



Theodore Case

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Advertisement, 1924

First Words



The Birth of Sound Cinema 1895 - 1929

Rare short films
music, cartoons, vaudeville, *and more*

Plus: period 78rpm records *on*
antique hand-wound phonographs

Thursday, September 23, 2010

7:30 PM - Victrola Favorites *w/* Robert Millis & Jeffery Taylor

8:00 PM - Film Screening

Northwest Film Forum

1515 12th Ave. www.nwfilmforum.org

Co-presented by The Sprocket Society

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