PIONEIROS PORTUGUESES

-------- AURÉLIO DA PAZ DOS REIS -------

Depois da fantástica invenção dos irmãos Lumiére, a notícia depressa se espalhou. O interesse por esta nova máquina despertou em muitos homens de negócios e especialmente de fotógrafos uma inusitada vontade de possuir as máquinas e ter o domínio das suas técnicas. O fascínio pelas imagens em movimento são desde a sua origem uma fonte de grande admiração e paixão. O «Cinématographe» dos franceses Lumiére é a ambição de muitos homens da época. Entre eles está, Aurélio da Paz dos Reis que ficou também ele sucumbido pela magia do cinema.

Meses depois, da apresentação inaugural em Paris dos irmãos Lumiére, Portugal teve também a oportunidade de assistir a esta nova magia. Por iniciativa do empresário António Santos Júnior e do técnico inglês Erwin Rousby que representava a empresa do fabricante inglês de aparelhagem especializada de William Paul, traz a Lisboa e ao Porto o « Animatógrafo». Decorria então o mês de Junho de 1896. Depois de enorme sucesso na Capital a apresentação rumou para o Porto, onde apesar do fraco sucesso da iniciativa na cidade, houve um espectador muito especial que logo se interessou por ter também uma máquina daquelas. Era Aurélio da Paz dos Reis.

Aurélio da Paz dos Reis era comerciante. Possuía uma loja de flores e sementes no Porto. Para além da sua dedicação á floricultura, também se dividia por uma actividade de fotógrafo amador. É este gosto pela fotografia que o leva a Paris, com a intenção de adquirir uma máquina como a dos irmãos Lumiére. De regresso Aurélio da Paz dos Reis, não trouxe o « Cinèmatographe» igual ao dos irmãos Lumiére, mas sim um outro modelo, que se julga que tivesse sido o « Kinétographe». Uma aparelho que podia ser utilizado como câmara de filmar e projector.

Em Setembro de 1896 são registadas as primeiras imagens em movimento no nosso país. Imagens que foram recolhidas por Aurélio da Paz dos Reis com o seu «Kinétographe». A filmagem consistiu da «Saída do Pessoal Operário da Fábrica Confiança» do Porto.

Muitos outros documentos, ou quadros, como eram chamados na época, foram filmados por Aurélio da Paz dos Reis e seu sócio e cunhado Francisco Magalhães Bastos Júnior.

Em 1897 Aurélio da Paz dos Reis desloca-se ao Brasil com uma série de quadros filmados de vários pontos de Portugal. O objectivo seria conseguir fazer um bom negócio. Contando, em recuperar o investimento feito. Porém Aurélio da Paz dos Reis regressa frustrado a Portugal,

pouco tempo depois de ter partido. As razões desse fracasso são ainda hoje pouco esclarecidas. O que se sabe ao certo, é que o pioneiro português não mais filmou depois dessa viagem.
Muitos dos documentos por ele filmados ficaram irremediavelmente perdidos. Os seus filhos quando ainda crianças, brincavam recortando os fotogramas com uma tesoura. Assim se perdeu um espólio histórico de incalculável valor.
Para além das primeiras imagens portuguesas que recolheu, Aurélio da Paz dos Reis foi uma importante figura política do seu tempo. Aurélio da Paz dos Reis era um liberal e democrata que defendia a implantação de uma república para Portugal. Foi vereador na Câmara Municipal do Porto durante os anos da Primeira Guerra Mundial (1914-1918).

«Saída do Pessoal Operário da Fábrica Confiança» do Porto.

Aurélio da Paz dos Reis nasceu em 28 de Julho de 1862 e viria a morrer em 18 de Setembro de 1931.
Para a história , Aurélio da Paz dos Reis, comerciante, político, floricultor e fotógrafo amador, foi não só o criador do cinema português mas também o primeiro operador de câmara e director de fotografia.

Filmografia:
« Saída do Pessoal Operário da Fábrica Confiança»
«Feira de Gado na Corujeira»
«Chegada de um Comboio Americano a Cadouços»
«O Zé Pereira na Romaria de Santo Tirso»
«Azenhas no Rio Ave»
«O Jogo do Pau»
«Rio Douro»
«Mercado do Porto»
«Cortejo Eclesiástico saindo da Sé do Porto no Aniversário de Sagração do Eminentíssimo Cardeal D. Américo»
«O Vira»
«A Rua do Ouro»
«Marinha no Tejo»
«Saída de Dois Vapores»
«Torre de Belém»
«Avenida da Liberdade»
«A Dança Serpentina»
FONTES:
“ Filmes, Figuras e Factos da História do Cinema Português” de M. Félix Ribeiro – Edc. Cinemateca

------- MANUEL MARIA DA COSTA VEIGA -------

Manuel Maria da Costa Veiga foi um dos pioneiros do cinema português. É ele que depois de Aurélio Paz dos Reis se torna o segundo “caçador de imagens”.
Ao contrário de muitos outros operadores de câmara, Costa Veiga, não é originalmente fotógrafo. O seu interesse no final do século XIX tinha muito a ver com as novas tecnologias emergentes na época. Como a mecânica e a electricidade. É este interesse pelas novas tecnologias que leva Costa Veiga a cruzar-se e a interessar-se pelo cinema. Em primeiro lugar pela exibição. Inicia alguns negócios sem sucesso. É em 1899 que Costa Veiga adquire num leilão de um coleccionador uma câmara de filmar. É a partir desse ano que se começa a notabilizar como operador de câmara.
Ao seu primeiro trabalho intitulo-o “Aspectos da Praia de Cascais”. No pequeno filme via-se o último rei de Portugal , D. Carlos, no banho na praia de Cascais. Muitas outras reportagens do género se seguiram ao longo da sua carreira.
Manuel Costa Veiga com sentido de oportunidade captou com a sua câmara momentos significativos no seu tempo. Visitas de pessoas importantes da época, como Eduardo VII, de Afonso XIII , o Kaiser da Alemanha e outros.
Depois da implantação da República em 1910, Manuel da Costa Veiga fixou com a sua câmara as festas um ano depois da revolução e as manifestações a Sidónio Pais em Lisboa. Muitos outros documentos teriam eventualmente sido filmados por este pioneiro. Porém, infelizmente não houve cuidados em preservar estes documentos.
No campo da ficção , Manuel da Costa Veiga foi o director de fotografia do realizador Leitão de Barros. O primeiro filme produzido pela Lusitânia Film « O Homem dos Olhos Tortos » não chegou a ser concluído por razões financeiras. A princípio seria uma série de nove episódios que contava as aventuras de um detective português. Seguiram-se depois « Mal de Espanha » e « Malmequer » que Manuel Maria da Costa Veiga viria a dividir a fotografia com Artur Costa de Macedo.


Malmequer


O homem dos olhos tortos

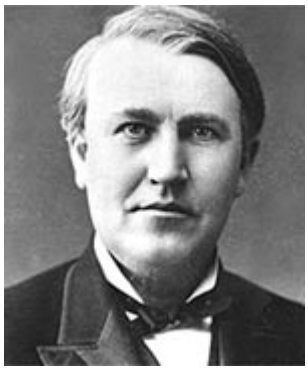

Funeral do rei D.Carlos e do príncipe herdeiro ítimas de assasinato em 1908

Filmografia.
« Aspectos da Praia de Cascais »
« Uma Parada dos Alunos da Casa Pia de Lisboa »
« Exercícios de Artilharia no Hipódromo de Belém »
« Uma Tourada à Antiga Portuguesa »
« Parada de Bombeiros »
« Uma Viagem de Cascais à Parede »
« A Operação dum Leão »

No campo da ficção.
Filmes em que participou como director de fotografia. Todos realizados por Leitão de Barros em 1918
« O Homem dos Olhos Tortos »
« Mal de Espanha »
« Malmequer »

O Vira

Pioneers



Thomas A. Edison

Regarded as the “Wizard of Menlo Park”, Thomas Alva Edison was born in Milan, Ohio on February 11th 1847. When he was seven, the Edison family moved to Port Huron, Michigan where the young Tom Edison set up his first chemical laboratory in the basement of their large house.

He attended school for only three months and at the age of twelve began selling newspapers on the Grand Trunk railway devoting every second of his spare time to experimentation with printing presses and electrical and mechanical apparatus.

In 1862 at the age of fifteen Edison published his own weekly paper - The Grand Trunk Herald - printing it in a freight car that served as a laboratory. Edison was taught the new science of Telegraphy out of gratitude from a Station Agent whose son Edison had saved by snatching him from the path of a moving train. The skills he learnt in Telegraphy afforded him a job as a Telegraph operator which took him across the country from Stratford in Canada to Adrian, Michigan; Fort Wayne and Boston.

It was while working as a telegraph operator that Edison made his first invention - a telegraphic repeating instrument which enabled messages to be transmitted automatically over a second line without the presence of an operator.

Edison settled briefly in Boston and secured employment; he, again devoted all of his spare time to his research and experimentation during which time he invented a vote recorder which although it had its merits was not sufficiently practical to warrant its adoption. At the age of 21 he travelled, almost penniless to New York City and obtains employment at the Gold and Stock Telegraph Company after fixing a broken down machine. Earning $300 a month he greatly improved their apparatus and service, again spending his spare time devoted to working of new inventions.

Among his many inventions during his employment in New York was the “Universal Stock Ticker” and generated around $40,000 from the sale of this any many other inventions. With this new-found wealth Edison moved to Newark and opened a manufacturing shop there making stock tickers.

He remained in Newark until 1875 when, at the age of 29 he moved to Menlo Park in New Jersey and the following year established a laboratory there.

In his new premises, Edison carried out some of most important work, he devised an automatic telegraph system that made possible a greater speed and range of transmission. He developed machines that made it possible to transmit several telegraphic messages on one line increasing the usefulness of existing telegraph lines. Edison also invented a Carbon Telephone Transmitter which proved important in the development of the telephone - something which had recently been invented by American Physicist and Inventor Alexander Graham Bell. In 1877, Edison recorded sound. His phonograph employed a tinfoil cylinder onto which sound was mechanically etched.

He developed this idea later in his career using wax discs instead of tinfoil cylinders. Two years later, Edison exhibited what is often regarded as his greatest invention - the Incandescent electric light bulb. In the years that followed Edison occupied himself with the improvement of the light-bulbs and the dynamos for generating the necessary electric current. Such was his research in this area that on September 4th 1882 Edison started operation of the world's first large central electric power station on Pearl Street in New York.

In the spring of 1883, Edison employed W.K.L Dickson as his assistant. 1887 saw another move for Edison, this time from Menlo Park to West Orange, New Jersey.On this new site, Edison constructed a large laboratory for his experimentation and research. Motivated by the work of Marey and Muybridge Edison wrote on October 8th 1888 that, "I am experimenting upon an instrument which does for the eye what the phonograph does for the ear." Most of the experimentation and research was carried out by Edison's assistant, Dickson, with early experiments employing techniques developed with the phonograph. These involved arranging rows of tiny photographs on the outside of a cylinder with a light, or igniting sparks inside. Experiments using this idea as a starting point continued for some years.

On August 2nd 1889 Edison sailed to Europe and met with Jules Marey and witnessed the results achieved by Marey's roll-film Chronophotographe. Edison returned to America with his faith in the cylinder's shaken although he continued to experiment with this format. In October of 1890, one of Edison's laboratory workers Sacco Albanese was the subject for the first film to employ the cylinder method. The so called "Monkeyshines" clearly displayed the limitations of this method of presentation as viewing required huge monocular magnification, and even then the images would appear impossibly grainy. As a result, the cylinder method was abandoned in favour of film.

With Dickson leading the experimentation and research the Kinetoscope was developed - a peepshow device which required viewers to peer into the top of a large cabinet where they would be treated to a minute or so of moving pictures. The first Kinetoscope prototype was ready by May 20th 1891 and was demonstrated to a Convention of the National Federation of Women's Clubs invited to the laboratory by Edison's wife. In June of 1892 Edison announced his intention to included his Kinetoscope in the World's Columbian Exhibition in Chicago the following year.

Realising that a necessity for the Exhibition's Kinetoscopes would be films to view, Dickson perfected a working camera in October of 1892 and December saw the erection of a studio in the grounds of Edison's Laboratory which became known as the Black Maria, thanks largely to its resemblance to the police vans of the time. The first official public demonstration of the Kinetoscope was on May 9th 1893 at the Brooklyn Institute of Art's

and Sciences. The audience at this demonstration were lined up and filed past the machine to view a Blacksmith Scene.

Despite the best efforts of Edison's company, the Kinetoscopes were not ready in time for the Exhibition in Chicago.

One of the first films made for the Kinetoscope and copyrighted by Dickson was the now legendary "Record of a Sneeze" made in early January 1894. The subject of this film was one Fred Ott and each individual frame showing his antics were recorded on paper with its own number and sent, on January 7th to the Library of Congress for copyright. The desire to meet Edison and appear in his new moving pictures was great and this meant he was able to attract popular stage personalities to appear in short films - generally based on Vaudeville acts. Each of these events was usually a staged event - even the early films such as the Blacksmith Scene were recorded in the studio requiring an Anvil to be facilitated - the workers from Edison's machine room who appear in this film, can be seen pausing from their hammering and pass around a bottle of drink.

The first Kinetoscope's were ready for shipping on April 6th and ten were sent to 1155 Broadway in New York City owned by the Holland Brothers. This was the location for the first Kinetoscope Parlour which was opened on April 14th 1894. The Kinetoscopes were arranged in two rows of five with a brass rail around for customers to lean on. Kinetoscope Parlours quickly opened across the country - the marketing for these parlours was handled by Norman Charles Raff and Frank. R. Gammon and became known as the Kinetoscope Company. A second group was formed - the Kinetoscope Exhibition Company - by Gray and Otway Latham, to market the Kinetoscopes and the films.

The Latham's saw the possibilities in recording prize-fights which were against the law in many states and such fights became popular with Kinetoscope viewers. The first foreign Kinetoscope Parlour opened on October 7th 1894 at 70 Oxford Street in London but by the end of 1894 the Kinetoscope craze was dying down and Edison's failure to patent the Kinetoscope properly meant his developments were much copied. In December of 1895, Thomas Armat demonstrated his projecting Phantoscope to entrepreneurs Raff and Gammon, who in turn approached Edison with a view to developing.

Edison, who had seen his peephole Kinetoscope losing popularity to other motion picture projecting devices such as the Lumière brother's Cinématographe agreed renaming the Phantoscope the Vitascope and marketing under the banner "Edison's Vitascope". At a demonstration of the Vitascope Edison played the role of its inventor convincingly well.

During his career, Edison patented over a thousand inventions and received many notable awards - in 1928 he received the Congressional Gold Medal for "development and application of inventions that have revolutionised civilisation in the last century."

Edison died in West Orange on October 18th 1931 aged eighty four.

W.K.L.Dickson

W.K.L (William Kennedy Laurie) Dickson was born in 1860 in Minihic-sur-Ranse, France to an English father and a mother from Scottish descent.

In February 1879 the Dickson family, William, his widowed mother and two sisters left France and moved to England. Once settled in England the nineteen year old Dickson wrote to Thomas Edison who, at that time, was working in Menlo Park in America. In his letter Dickson presented himself as, "...a friendless and fatherless boy" with "patience, perseverance, an ardent love of science and above all a firm reliance on God". Dickson concluded his letter by asking for employment. Dickson received a brief refusal.

Three months later, the Dickson's were on the move again, this time to the United States and four years after settling there William was finally given a job at the Edison Laboratories and quickly proved himself to be a valuable assistant.

In 1887, when Thomas Edison initially started thinking about moving pictures, Dickson was occupied with experimentation on a costly ore extraction process. The following year Edison set Dickson to work developing his ideas. Edison's idea was centred around his sound capture device - the phonograph.

Initially Edison described a series of microphotographs arranged in a spiral formation around the exterior surface of a cylinder - in the same way as recorded sound tracks were etched onto the surface of the tinfoil cylinders in the phonograph. In addition Edison described the illumination of these microphotographs from inside the cylinder using electric sparks.

The early experimentations carried out in Edison's laboratories show a determined effort to make this cylinder method succeed. Dickson placed orders for many interesting supplies - Magic Lantern plates, and plates from Eadweard Muybridge's Animal Locomotion Experiments. In September of 1888 Dickson ordered a quantity of microphotographic lenses - clearly for use in his motion picture experiments.

Other ideas put forward by Edison to Dickson included the coating of the cylinder with emulsion but this proved difficult and Dickson sought other alternatives, travelling to New York to obtain some "daguerreotype experiment" supplies.

In November 1888 John Carbutt announced to colleagues in the field of photography announced his successful production of photographic quality celluloid, available in 20 x 50 inch sheets. The decision by Edison's laboratory to order a dozen Carbutt film sheets the

following June seemed to signify an end to the cylinder experiments but the Summer of 1889 saw serious experimentation on what was now being called the Kinetoscope.

On August 2nd 1889, Edison left Dickson to continue with the cylindrical moving picture machine and sailed to Europe where he met Jules Marey.

Returning to his laboratories on October 6th he found an addition to his premises - a new “Photographic Building” had been erected to accommodate Dickson’s experiments.

Despite stimulus from two events - the introduction to Marey’s roll film Chronophotographe and apparent competition from William Friese-Greene (who had described a machine camera for taking 10 photographs a second) no real attempt was made to prioritise the Kinetoscope experiments and much of the Summer of 1890 was spent by Dickson and Edison experimenting with the Ore Extraction process.

Despite the Friese-Greene threat and the new possibilities opened up by flexible film, cylinder experiments continued on to the bitter end. In Late October of 1890, Dickson’s hard work produced its first successful results. He was able to show his first motion pictures produced by the cylinder Kinetoscope. The viewed scenes, the so called “Monkeyshines” starred one of the laboratory workers dressing up and fooling around for the camera.

Results were clearly achieved by the cylinder machine as evidence still exists pertaining to the fact, but it was clearly a dead end. The moving pictures produced were only viewable using huge monocular magnification - under which the microscopic images would almost certainly appear grainy.

Work on the cylinder device ended late in 1890 and work began on a moving picture Kinetoscope using roll film. By May of 1891 Dickson had produced a working prototype, this followed with a camera and patent specifications for the Kinetograph camera and Kinetoscope viewer were filed on 24th August 1891.

Edison’s announcement that he would show films on his new Kinetoscope at Chicago’s World Columbian Exposition meant that a great deal of work was needed to fulfil the expected twenty five machines. Dickson identified the need for films to show in these machines and when Dickson perfected the Kinetograph Camera in October 1892, he set to work designing a studio to make these films.

Building work began on the studio in December in the grounds of Edison’s West Orange Laboratory. The studio was constructed of wood and tar paper with a removable roof and sat on circular tracks enabling rotation to trap the maximum amount of sunlight. The studio became known as the “Black Maria” due to its supposed similarities to the police wagons of the period.

Regrettably the twenty five Kinetoscopes promised for the Chicago Fair weren’t ready by its opening in May 1893.

Edison’s reputation as an inventor and businessman meant that Dickson was able to persuade major showbusiness figures to travel from New York to the Black Maria Studio to star in Edison films. Many vaudeville acts travelled to New Jersey, often waiving their fee including Eugene Sandlow - “The Strongest Man in the World”, and Ruth Dennis - “High Kicker”.

In the two years that followed, Dickson's Kinetoscope attracted performances from Barnum and Bailey's Circus and Buffalo Bill's Wild West Show - featuring Annie Oakley and Buffalo Bill Cody.

April the first 1894 saw the appointment of a new general manager of Edison's Enterprises - William E. Glimore. Friction was soon generated between Dickson and Gilmore, Gilmore insisting that all copyrights held in Dickson's name be changed to Edison.

The growing differences between Dickson and his employer was aggravated further when Edison put Dickson's colleague, Charles Kayser, to work developing a projection apparatus for motion pictures. Edison had previously stated categorically that he had no interest in projecting moving pictures in favour of the current peephole method.

Outside of work, Dickson spent time with the Latham's (Gray and Otway) as well as with engineer friend Henry Norton Marvin and his partner Herman Casler. With Marvin and Casler, Dickson discussed the idea of a simple alternative to the Kinetoscope.

Retaining the peepshow format Dickson's idea involved an elaboration on the flick-book principle and on November 21 1894 Casler filed a patent application for this device under the name Mutoscope. The following March Casler demonstrated a camera - the Biograph to take "views" for the Mutoscope.

Around this time is recorded a confrontation between Dickson and William Gilmore, little is known about what exactly was said but it is believed Gilmore accused Dickson of being disloyal to Edison. Dickson, upset and angry that, after all his hard work his loyalty was called into question resigned from Edison's Company on April 2nd 1895.

By early June in 1895, Casler's camera was in operation and Dickson appears to have spent that summer at Casrastota, New York, with Marvin and Casler and probably made some of the first mutoscope films.

Dickson was now firmly committed to the development of the Mutoscope, November 5th 1895 saw its patent issued and nine days later a application for a patent was made for a handheld mutoscope. November also saw a mutoscope adapted with a mirror device to project motion pictures and soon after the group perfected a through the film projector which they called the Biograph.

The American Mutoscope company was established on December 27th 1895 - the partners listed as Dickson, Marvin, Casler and Elias Hoopman. They set up premises at 841 Broadway, in New York.

Dickson's knowledge of the European marketplace made him an ideal candidate for manager of the Mutoscope and Biograph Syndicate's London Office, which he became as the century drew to a close.

Lumière Brothers

The Lumière brothers, Auguste and Louis, were sons of well known Lyons based portrait painter Antoine Lumière. They were both technically minded and excelled in science subjects and were sent to Technical School.

Antoine, noting the financial rewards of new photographic processes, abandoned his art and set up a business manufacturing and supplying photographic equipment. Joining him in this venture was Louis who began experimenting with the photographic equipment his father was manufacturing.

During his experimentation, Louis discovered a process which assisted the development of photography. Louis developed a new 'dry plate' process in 1881 at the age of seventeen, it became known as the 'Etiquette Bleue' process and gave his father's business a welcome boost, and a factory was built soon after to manufacture the plates in the Monplaisir quarter of the Lyons Suburbs.

By 1894 the Lumières were producing around 15,000,000 plates a year. Antoine, by now a successful and well known businessman, was invited to a demonstration of Edison's Peephole Kinetoscope in Paris. He was excited by what he saw and returned to Lyons. He presented his son Louis with a piece of Kinetoscope film, given to him by one of Edison's concessionaires and said, "This is what you have to make, because Edison sells this at crazy prices and the concessionaires are trying to make films here in France to have them cheaper".

The brothers worked through the Winter of 1894, Auguste making the first experiments. Their aim was to overcome the limitations and problems, as they saw them, of Edison's peephole Kinetoscope. They identified two main problems with Edison's device: firstly its bulk - the Kinetograph - the camera, was a colossal piece of machinery and its weight and size resigned it to the studio. Secondly - the nature of the kinetoscope - the viewer, meant that only one person could experience the films at a time.

By early 1895, the brothers had invented their own device combining camera with printer and projector and called it the Cinématographe. Patenting it on February 13th 1895, the Cinématographe was much smaller than Edison's Kinetograph, was lightweight (around five kilograms), and was hand cranked. The Lumières used a film speed of 16 frames per second, much slower compared with Edison's 48 fps - this meant that less film was used an also the clatter and grinding associated with Edison's device was reduced.

Perhaps most important was Louis's decision to incorporate the principle of intermittent movement using a device similar to that found in sewing machines. This was something

Edison had rejected as he struggled to perfect projection using continuous movement. The brothers kept their new invention a closely guarded secret with Auguste organising private screenings to invited guest only.

The first of such screenings occurred on 22nd March 1895 at 44 Rue de Rennes in Paris at an industrial meeting where a film especially for the occasion, Workers leaving the Lumière factory, was shown. Unlike Edison, the Lumière Brothers were quick to patent the Cinématographe outside of their native France, applying for an English Patent on April 18th 1895. The brothers continued to show their invention privately, again on June 10th to photographers in Lyon.

Such screenings generated much discussion and widespread excitement surrounding this new technology - in preparation for their first public screening on 28th December at the Grand Cafe on Paris's Boulevard de Capuchines. The programme of films on show that day was as follows:

La Sortie de usines Lumière (1894)
La Voltige (1895)
La Peche aux poissons rouges (1895)
La Debarquement du congres de photographie a Lyons (1895)
Les Forgerons (1895)
L' Arroseur arrose (1895) Repas de bebe (1895)
Place des Cordeliers a Lyon (1895)
La Mer (1895)

Louis photographed the world around him and some of his first films were 'actuality' films, like the workers leaving the factory. The brothers began to open theatres to show their films (which became known as cinemas). In the first four months of 1896 they had opened Cinématographe theatres in London, Brussels, Belgium and New York.

Their catalogues grew from 358 titles in 1897 to 1000 in 1898 to 2113 in 1903; although out of the 2113 titles in the 1903 catalogue, less than 50 were the brothers. The rest were taken by other operators like Promio, Doublier and Mesguich. In 1900 the brothers projected a film on a huge 99 x 79 foot screen at the Paris Exposition, after which they decided to curtail their film exhibitions and devote their time to the manufacture and sale of their inventions.

In 1907 they produced the first practical colour photography process, the Autochrome Plate.

Antoine, after the initial cinematic explosion, returned to his art and continued to paint until his death in 1895.

Robert W. Paul

Robert William Paul was a successful electrical engineer with his own workshop in Hatton Garden in London when in 1894 he was approached by two Greek entrepreneurs who wanted him to make duplicate version's of Edison's Kinetoscope they were already operating.

Realising that, a mistake on Edison's part meant there was no patent held on the Kinetoscope in England, Paul seized the opportunity and agreed to make several machines for the Greek gentlemen.

Paul successfully copied the Kinetoscope and made several machines which, after fulfilling his order with the Greeks, he sold to other showmen. Unfortuantely, Paul found his customers unable to show Edison's films on his machine as they were not licensed Kinetoscope operates and Edison only provided films to those with a license.

Needing a camera to produce films for his Kinetoscope copies, Paul turned to photographer Birt Acres who he had recently met and in February 1895 Acres had provided Paul with provisional designs for a moving picture camera. The following month the partnership of Paul and Acres had produced a working camera which Acres used to make the first film in Britain - 'Incident at Clovelly Cottage'.

The camera Paul and Acres produced was based upon Marey's Chronophotographe and used 35mm sprocketted film which worked with the Kinetoscope design. Their camera provided a basis for a ten year business agreement founded in March 1895.

The agreement, sadly, lasted only six weeks before the two partners fell out. It is widely presumed that the reason for their break-up was Acres decision to patent the camera they developed together in his name.

In the years that followed, the feud between Paul and Acres continued. Robert and Birt each concentrated on improving upon their designs. Paul began work on improving the camera and incorporated a Maltese Cross mechanism which provided the film with an intermittent motion.

He also developed a projector, the Theatrograph, giving the first public demonstration on 20th February 1896 at Finsbury Technical College.

Paul's design proved successful and he was soon hired by enterprising businessmen to hold regular showings at venues around London - including the Egyptian Hall from 19 March 1896 and the Alhambra Theatre of Varieties in Leicester Square from the 25th March. Paul's engagement at the Alhambra was initally for two weeks but proved so successful that he

remained there for two years. In June of 1896, Paul attended the Epson Derby and filmed the finish and the Prince of Wales' Horse "Persimmon" winning. He processed the film overnight and screened it to an enthusiastic Alhambra audience the next day - becoming one of the first news films.

Sales of Paul's cameras and projectors soared and Paul was kept incredibly busy spending evenings travelling from music hall to music hall rewinding the films during each journey.

So successful was Paul that between March 1886 and March 1897, he managed to make a profit of over £12,000 from an initial investment of just £1000, all his hard work had finally paid off.

As well as manufacturing cameras and projectors, Paul also turned his hand to film production; he concentrated on "Actuality" films, to start with - such as the Derby and Queen Victoria's Diamond Jubilee Procession but quickly branched out and as early as April 1896 made a short comedy - "The Soldier's Courtship".

In 1898 Paul began construction on Britain's first film studios in Muswell Hill, North London and during that summer produced over eighty short dramatic films.

Paul's production company peaked during 1900 and 1905 but he gradually became disenchanted with the business. Finally in 1910, he decided that the film business was too risky and closed his production company down, destroying his stock of negatives in the process. After turning his back on the film industry he returned to his previous occupation, concentrating on electrical engineering.

Georges Méliès

Maries Georges Jean Méliès was born in Paris in 1861 and from a very early age he showed a particular interest in the arts which led, as a boy, to a place at the Ecole des Beaux Arts in Paris where Méliès showed particular interest in stage design and puppetry.

In 1884, Méliès continued his studies abroad, in London at the request of his parents - they insisted he learn English after which they intended him to work at his father's footwear business. While in London, he developed a keen interest in stage conjury after witnessing the work of Maskelyne and Cooke.

On his return to Paris he worked at his father's factory and took over as manager when his father retired. His position meant that he was able to raise enough money to buy the famous Theatre Robert Houdin when it was put up for sale in 1888.

From that point on Méliès worked full time as a theatrical showman whose performances revolved around magic and illusionist techniques which he studied while in London as well as working on his own tricks.

When the Lumière brothers unveiled their Cinématographe to the public on December 28 1895 Méliès was a member of the audience. What he witnessed clearly had a profound effect upon him. After the show he approached the Lumière Brothers with a view to buying their machine - they turned him down.

Determined to investigate moving pictures, Méliès sought out Robert Paul in London and viewed his camera - projector building his own, soon afterwards. He was able to present his first film screening on April 4th 1896.

Méliès began by screening other peoples films - mainly those made for the Kinetoscope but within months he was making and showing his own work, his first films being one reel, one shot views lasting about a minute.

Méliès' principle contribution to cinema was the combination of traditional theatrical elements to motion pictures - he sought to present spectacles of a kind not possible in live theatre.

In the Autumn of 1896, an event occurred which has since passed into film folklore and changed the way Méliès looked at filmmaking. Whilst filming a simple street scene, Méliès camera jammed and it took him a few seconds to rectify the problem. Thinking no more about the incident, Méliès processed the film and was struck by the effect such a incident had on the scene - objects suddenly appeared, disappeared or were transformed into other objects.

Méliès discovered from this incident that cinema had the capacity for manipulating and distorting time and space. He expanded upon his initial ideas and devised some complex special effects.

He pioneered the first double exposure (La caverne Maudite, 1898), the first split screen with performers acting opposite themselves (Un Homme de tete, 1898), and the first dissolve (Cendrillon, 1899).

Méliès tackled a wide range of subjects as well as the fantasy films usually associated with him, including advertising films and serious dramas. He was also one of the first filmmakers to present nudity on screen with “Apres le Bal”.

Faced with a shrinking market once the novelty of his films began to wear off, Méliès abandoned film production in 1912. In 1915 he was forced to turn his innovative studio into a Variety Theatre and resumed his pre-film career as a Showman.

In 1923 he was declared bankrupt and his beloved Theatre Robert Houdin was demolished. Méliès almost disappeared into obscurity until the late 1920’s when his substantial contribution to cinema was recognised by the French and he was presented with the Legion of Honour and given a rent free apartment where he spent the remaining years of his life.

Georges Méliès died in 1938 after making over five hundred films in total - financing, directing, photographing and starring in nearly every one.

Cecil Hepworth

Cecil Hepworth came to moving pictures from a background of Magic Lanterns. His father was a popular magic lantern entertainer and it was here that a young Hepworth developed an interest in projecting pictures.

His childhood was spent assisting his father with his lantern shows and toured the country attending many lectures. His interest in the projection of both still and moving picture continued when in 1896 he began touring with his own mixed slide and film show.

His technical knowledge of photography equipment and the art of moving pictures, built up from the many lectures he attended as a child, led Hepworth to publish the first handbook on the medium of film entitled 'Animated Photography' and it was in 1898 when he began making films for Charles Urban, who had recently arrived in London as manager of what would eventually become the Warwick Trading Company.

Hepworth set up a laboratory in 1899 and by 1900 he was releasing a hundred films a year. He was primarily a producer more than an actual film-maker but did on occasion, write, direct, edit, photograph and star in many films, however many of the films credited to him were in fact the work of his associated Percy Slow and Lewin Fitzhamon, the latter co-directed perhaps Hepworth's most celebrated work 'Rescued by Rover' (1905) as well as other inventive comic films such as 'The Other Side of the Hedge'(1905) and 'That Fatal Sneeze' (1907).

Hepworth was a dedicated film pioneer and the driving force, many believe, behind the origins of the British Film Industry.

Hepworth's skill with publicity and his ability to charm his stars to appear in many of his films made his company the only British Film Company to compete well with the wealth of foreign imported films.

He returned to directing in 1914 and continued into the 1920's where he began to fall behind the times in terms of film techniques - it was this that contributed to his bankruptcy in 1924. He ended his film career directing trailers and advertisements.

Hepworth died in 1953 aged 79.

Edwin S. Porter

Edwin S. Porter joined the Vitascope Marketing Company in 1895 where his experience with electrical engineering was called into use.

Whilst at Vitascope, Porter was central in the organisation of the first projected movie show in New York on the 23rd April 1896. He continued to use his engineering skills in the laboratory at Edison's Manufacturing Company but left to become a freelance projectionist at the Eden Musee Theatre in 1898.

Whilst working as a projectionist, one of Porter's many duties included the illegal duplication of Méliès films. He would take apart one act reels and combine several of these into a fifteen minute programme.

In addition, he attempted to create his own camera and projector but his efforts were in vain and in 1900 he returned to Edison's Company not in an engineering capacity but as a producer and director at Edison's East 21st Street Skylight studio.

A fan of the films of Georges Méliès, Porter tried to emulate the trick photography which Méliès had introduced to the world and had proved incredibly successful, in films such as 'The Finish of Bridget McKeen' (1901) and 'Jack and the Beanstalk' (1902). Porter was also one of the first directors to shoot at night in his 'Pan-American Exposition by Night'.

Porter's skill with editing and methods of projection were used to great effect in some of his earliest films. He combined documentary footage with his own footage in films like 'The Execution of Czoyosz' (which he made with actor and set painter George S. Fleming); in 'Life of an American Fireman' he adopted a documentary style of filmmaking .

'Life of an American Fireman' combined stock actuality footage of fires, firemen and fire engines with dramatised scenes which Porter shot, this juxtaposition added tension and release to the film making it truly dramatic in contemporary setting, unlike Méliès whose filmatic drama was derived from his films' fantasy settings.

Porter was convinced, from the audience reaction that he had discovered a new way of telling stories and developed his ideas the following year with the release of 'The Great Train Robbery', perhaps the most influential film of that decade.

'The Great Train Robbery' benefited from a strong storyline, well composed, sophisticated camera work and an excellent climax, joined together by Porter's excellent use of editing.

Although it was not the first 'Western', 'The Great Train Robbery' was the first Epic Western, which boasted a cast of forty actors working to an actual script.

During his time at Edison, he made many films for the company, in fact he was the mainstay of their film production for over five years. He left in 1909 and took senior production posts with a number of new independent companies.

Six years later, In 1915 Porter returned to his firs enthusiasm - projectors and remained involved with projection for the rest of his working life.