P06 Letters Patent and Border Raiders

The Daguerreotype in Britain

WC 3831

The Daguerreotype, for twenty years the darling of America, received a much cooler welcome in Britain, at least in part because Louis Daguerre and his partner, Isadore Niépce had taken out a English patent on their process on 14 August 1839[1], five days before it became freely available to the rest of the world. This of course flew in the face of the generous intention of the French Government when it granted pensions to Daguerre and Niépce in return for their invention, having done so on the understanding that the daguerreotype did not lend itself to being secured by a patent and thus was to be made freely available *à tout le monde*[2].

Married in 1840, Queen Victoria and Prince Albert re-posed their wedding vows for the daguerreotype camera in 1854.

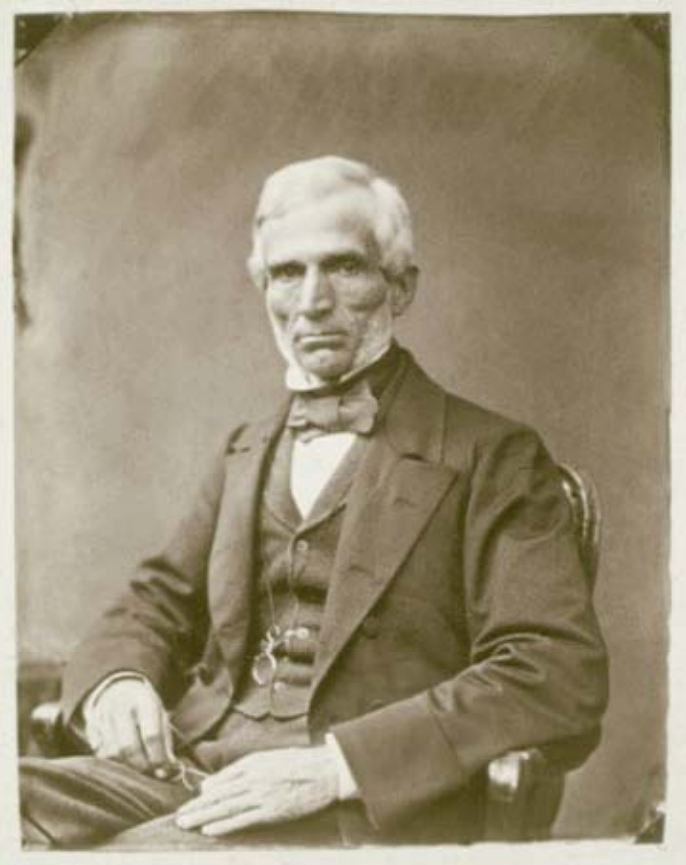
There was resentment too because Daguerre licensed Alphonse Giroux, a relative of his wife, to manufacture and sell authorised daguerreotype cameras anywhere in the world *except* in England! For a few weeks shortly after the patent was released in France, there was a M. de St. Croix giving public demonstrations and selling Giroux' cameras and instructions for making the new "sun pictures' in London and later, reportedly, in a couple of other cities[3]. This was clearly an infringement of the rights of the patentee who, by the end of October, secured an injunction preventing anyone from taking, demonstrating, exhibiting or selling daguerreotypes in that country.

To make matters worse, of course the patent did not apply in other parts of the United Kingdom. For example, Scottish law is distinct from English law and the letters patent did not extend north of the border. Would-be Daguerreotypists in Scotland — and Ireland — were, like in the rest of the world, able to enjoy the freedom to experiment with the new medium, buy Daguerre's authorised cameras and other accessories thanks to the generosity of the French government. This led

[1] Gernsheim, H: *The Origins of Photography*, Thames and Hudson, 1982, p 121

[2] So said the Minister of the Interior in support of the Bill before the chamber of Deputies on 15 June, 1839.

[3] There has been speculation that this M. de St Croix who vanished rather mysteriously from the record might have been François Gouraud acting under an assumed name. Gouraud, as we saw in the previous session, was Giroux' agent who arrived in America in September 1839 to publicise and sell daguerreotype cameras and accessories.



to a new version of the cross-border raiding which had gone on for centuries between southern Scotland and northern England when, like the Border Reivers[4], Scots daguerreotypists made forays into the northern counties, sold their services to eager Englishmen and dashed back into Scotland before the spies of the patentee were able to apprehend them.

Antoine François Jean Claudet (possibly a self-portrait)[5]

However, as all new technology always must, the daguerreotype eventually made its way to the very top, some examples being presented to Queen Victoria and Prince Albert on 15 October, 1839 by Antoine François Jean Claudet, an enterprising Frenchman living in London. Claudet was the proprietor of a London glass factory making those glass domes so dear to middle-class Victorians. Seeing a business opportunity, he went to Paris and took instruction from Daguerre himself, after which he returned to London with daguerreotypes of "*…Paris, Rome and other cities, their public buildings, bridges, fountains, and monuments; also landscapes…"* which his firm sold to the public for prices up to four guineas each.

Claudet made an unsuccessful attempt to raise the capital to buy the patent from the patent agent, Miles Berry — who held it for Daguerre — and also unsuccessfully attempted to persuade the Royal Society to purchase it. Although unable to gain the patent, he was granted a licence to make daguerreotypes in England so that, by July 1840, he was making daguerreotypes locally, advertising "portraits from nature", "microscopic objects immensely magnified" and even "figures from the living model". At that stage, except in America, exposures were still too long for successful portraits, so these "living models" were probably artists models accustomed to holding poses for a long time. At the time when John Draper in New York was using a camera with an aperture f1.4 (not uncommon on modern cameras) to take portraits in the brightly-lit Wolcott-type studio,

[4] Between the 13th and 16th Centuries, raiders from both sides of the English-Scottish border made excursions into each others' territories, plundering and stealing cattle. These were known as the Border Reivers or Border Riders.

[5] Photo from http://albumen.stanford.edu/library/monographs/masters/fiche-1-e8.jpg

daguerreotypists in Europe were still using cameras rated at f14 — this is a bit better than a pin-hole camera — and relying on ambient light so that their exposures were uncomfortably long.

Richard Beard (1801-1885)[6]

In March 1841, a former coal-merchant Richard Beard opened the first professional portrait studio in Great Britain where he used Wolcott's mirror camera to make daguerreotypes. Beard had paid the American inventor £200 plus his expenses for a one-half share in this rather strange camera which used a concave mirror rather than a lens to focus the image on the plate. Later he paid £7,000 for the other half, a decision he would live to regret because not only was the Wolcott camera limited physically to making only small pictures, but research elsewhere in Europe made much improved camera lenses available. Beard abandoned the Wolcott mirror camera two years after he bought it.

Beard, Claudet and others meanwhile were experimenting with new ways to speed up the photographic process. England, of course, was at that time the world's leading industrial nation and scientists and photographic enthusiasts there had a long experience of experimenting with photo-sensitive materials. Beard employed the chemist John Frederick Goddard who conducted tests using bromine as well as iodine to sensitise the metallic plate which, he found, speeded up the process to the point that exposures were reduced in good light from over five minutes to just several seconds.

Hearing of this activity, Miles Berry, Daguerre's patent agent in England, threatened legal action. Although Beard argued he was using "the American photographic process" rather than Daguerre's, he eventually bowed to pressure and paid Berry £150 p.a. for the right to take daguerreotypes but *only using his Wolcott camera.*

With the way seemingly now clear, Beard then opened his studio to which the public flocked, fascinated by the blue-glass roof and the small likenesses they

[6] Photo from www.spartacus.schoolnet.co.uk/DSphotoearly1A4.htm

could commission. It has been said that in those heady days, the Beard studio overlooking Cavendish Square made £150 a day although others say it more likely averaged £60 a day.

Richard Beard: A gentleman seated, 1849 (coloured daguerreotype)

Beard saw that owning the patent himself would make an already profitable business even more profitable so on 23 June 1841 he purchased the patent *"for England, Wales and the Colonies"* from Daguerre's agent, Miles Berry for the sum of £800. This had been previously offered to Claudet, as agreed with Daguerre himself back in 1839, but Claudet's partner, George Houghton, did not consider this a prudent venture and refused, a decision he certainly lived to regret because Beard is believed to have taken between £25,000 and £36,000 in the second year alone.

For Claudet, however, this was not the end. He too had been experimenting and in May 1841 discovered that a combination of iodine and chlorine vapour significantly speeded up exposure times. He reported his findings to the Royal Society and to the Adadémie des Sciences in Paris the following month. Claudet was to make many contributions to photography in the following years but, although he patented them, never seems to have enforced his rights so that they not only became common practise everywhere in his day but many remain features of photography in our lifetime.

Also in June 1841, Claudet began to take portraits in the "glass house" he had built the previous year on the roof of the Adelaide Gallery, near St Martin's-in-the-Fields. Hearing of this, Beard promptly sought an injunction but the action eventually failed because Claudet, it must be remembered, already held a licence.

However, despite Claudet's improved process using both chlorine and iodine vapour, the public seemed to agree at this stage that Beard's daguerreotypes were still superior. Furthermore, Beard was now able to sell licences and so made possible the establishment of studios around the country, including one in Brighton run by William Constable who took the first daguerreotype of Prince Albert on 6 March 1842. Another provincial licensee of historical interest was Mrs A. Cooke, of 6 George Street, Hull, who was probably the first professional woman photographer in Great Britain.

Antoine Claudet:
portrait of a lady, c.1850

Beard also began to colour daguerreotypes, using a process he presumably bought from the Swiss inventor, JB Isenring. As was his wont, Beard of course patented the process in March 1842. Unable to use this method, Claudet collaborated with a well-known French miniature painter, L. Mansion, to copy and colour his images. Claudet, however, was sceptical — and correctly so — that daguerreotypes would ever be able to be taken in colour.

Rather than concentrating of colour, Claudet sought to improve daguerreotypes by adding interesting backgrounds in place of the plain screens which had been used to this time. He had scenery painted to represent trees, architecture and even a library in front of which his sitters could pose. However, even more innovative that painted backgrounds, Claudet also introduced what we know as the "dark room" and the use in it of red light, a "safe light" because the chemicals were least sensitive to this wavelength. He also developed a camera within which the plate could be sensitised with mercury vapour without resort to a darkroom. A small red window in the side of the camera allowed the photographer to watch the process[7].

Antoine Claudet: family group

In May 1942 the first issue of *The London Illustrated News* made its appearance with the promise that everyone who took out a six-months subscription would receive *"A grand panorama print of London, a picture bigger than anything previously issued"*[8] Claudet was commissioned with the task of taking the daguerreotypes on which the final

[7] This reminds me of the little round red window on my first Box Brownie through which I could see the numbers as I wound the film on between "shots".
[8] See Gernsheim, op. cit. p134.

engravings would be based. The final engravings measured 91.5 x 127 cm (36 x 50 inches) and were published on 7 January 1843, one showing the view of London to the north of the Duke of York column in Pall Mall, from the top of which Claudet had taken his pictures, and the other to the south. From then on, *The London Illustrated News* relied heavily on daguerreotypes, particularly for portraits, for their illustrations.

The Chessplayers, attributed to Claudet circa 1843 (salted paper print).

The following year — 1843 — saw Claudet once more in Paris where, among other dignitaries, he photographed King Louis-Philippe. Perhaps more importantly for the history of photography, he returned to London with Petzval lens which vastly improved his picture-taking ability. Not only was this lens much faster, it also allowed him to take much larger images. Some idea of the impact of this can be seen in that previously the limit was about 2 ½ x 3 inches but the new Petzval lens bumped this up to 16 x 13 inches. The public, particularly the rich and famous, quickly realised the advantage and rushed to M. Claudet's studio which soon became too small and so, in 1844, he moved to larger premises in King William Street. Here, following Beard's example, Claudet provided a waiting room for ladies whom he advised not to wear white (it showed up either too bright or spotty in the final image) or purple which, because the sensitised plate was more sensitive to this colour, ended up looking white in the daguerreotype. And, furthermore, because smiles held for the duration of the exposure tended to look forced, he suggested as ….*a recipe for a pretty expression of mouth — let them place it as if they were going to say* prunes.[9]

Claudet photographed many of the most famous people of his day, including the Dowager Queen Adelaide and the Duke of Wellington (1845). This was the only photograph for which the Iron Duke ever sat and formed the basis for the many other portraits which abounded. Among Claudet's distinguished clients were also Henry Fox Talbot (who, as we will see later, perhaps more so than Niépce was the inventor of photography as we know it today) and the old master himself, Daguerre.

[9] Quoted in Gernsheim op cit p137.

With his star in the ascendant, Claudet opened new premises in the refurbished Coliseum in Regents Park where he engaged an architect to make his studio the most elegant and luxurious in Britain. Here, among other advantages, he also found that the air was cleaner, free of the smoke which was a nuisance elsewhere. Within a few years, so many other studios — glass-houses — had been built nearby that the street became known as Glasshouse Street and was one of the tourist attractions of London.

In 1853 Claudet reached the peak of his career when he was commanded to take stereo daguerreotypes of Queen Victoria and the Royal Family at Buckingham Palace and his subsequent appointment as "Photographer-in-Ordinary to the Queen".

Claudet died in 1868, boasting that he was not only the first to take daguerreotypes in England but also the last! He did not take ambrotypes, the cheaper successor to the daguerreotype, but spent much of the 1850s specialising in stereography. Then, when JE Mayall started the fashion for *cartes-de-visite* in 1860, Claudet readily joined the trend. But as the historian Gernsheim[10] points out, it was not only as a portraitist that Claudet is remembered:

> *His scientific attainments and his inventive genius were of a very high order. Indeed, few people are so closely identified with the progress of photography in its first three decades. There was not a single year between 1841 and his death in 1868 in which Claudet did not bring some valuable practical or scientific contribution to photography to the notice of the British association, the Royal Society (which elected him a Fellow in 1853), or some other scientific or photographic body, in Britain or in France*[11].

Among his many practical inventions which have not already been mentioned is one which deserved recognition: in 1848 Claudet was the first in the world to develop a meter which measured the intensity of light, a device which today we call a photometer or more commonly, a *light meter*.

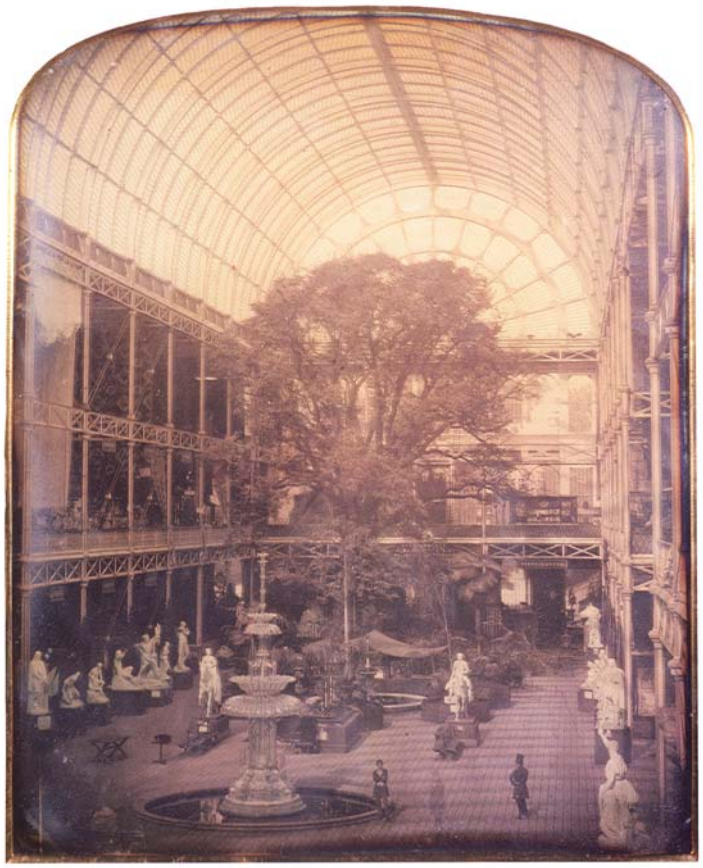
While Claudet seems to have been relaxed about his patents, Beard was ever vigilant to protect his and even employed a network of *agent provocateurs* to help him police them and prosecute those who made daguerreotypes without his permission. This eventually led to his undoing. Among the many law-suits he brought against people who infringed his patent was one, *Beard vs John Egerton* which dragged on for 5 ½ years, the longest case in the history of photography in Britain. Although he eventually won the case, the cost of the protracted proceedings bankrupted him and what had been his empire closed down. However,

[10] Op. cit. p141
[11] ibid.

Beard deserves a place in our history because from 1841 onwards, as a matter of course he referred to his portraits not as daguerreotypes but as photographs because, as he said[12], this was

> *….a name better suited to the principles of English nomenclature than that of daguerreotype, which, although a favourite word on the Continent, is by no means suited to our views, as it has no reference whatsoever to the principles of the subject.*

Photography, of course, has the meaning of drawing or writing with light (from the Greek *phos*, light and *graphis*, a stylus or paint brush) and it has been this association with light which has fascinated public and scientist alike since long before Niépce and Daguerre made permanent images possible. Sometimes, and especially in the 19th Century, this fascination has verged on religious awe, almost as though one's image was being drawn by the finger of God — or, more accurately, the Sun-God.



John Mayall, Crystal Palace 1851 daguerreotype 20.2 x 25.5cm.

This reverence was in itself an important motivation for people to pay to have their image recorded on the shiny mirror-like surfaces of the daguerreotype which, for all their disadvantages, were felt to capture the "real you" as only God or Nature could know you. We have to remember that the Victorians were romantics, heirs to the philosophical views of Rousseau. Although these find expression nowadays in the Environmentalist Movement, people in the 19th Century had been raised on the pantheistic poems of Wordsworth[13] and the exhilaration of the great outdoors as expressed in the "Happy Wander" songs of Schumann[14].

[12] ibid p. 130.
[13] The classic is of course Wordsworth's poem: *Lines Composed A Few Miles Above Tintern Abbey, On Revisiting The Banks Of The Wye During A Tour July 13, 1798*
[14] *The Happy Wanderer*, *Words*: Joseph Baron von Eichendorff, *Music:* Robert Schumann

By the time the daguerreotypists were "writing with light", a growing concern that the crowded and smog-filled cities of the Industrial Revolution were causing disease and deformity had given rise to even more paganistic attitudes, one expression of which was the emerging Naturist Movement with its emphasis upon fresh air, pure water, vegetarianism and most important of all, sunlight. By the end of the Old Queen's reign, this sun worship had even grown into full-frontal *Nudism*.

In 1846, the new daguerreotypist on the block was John Jabez Edwin Mayall, a chemist from Philadelphia where he had been running a studio since 1842. He managed Claudet's studio for a time while the new premises were being established in the Coliseum, but moved to his own studio in The Strand in April 1847. Calling himself "Professor Highschool" as he had done professionally in Philadelphia, he did flourishing business at his "American Daguerreotype Institution", trading on the reputation the Americans had for superior daguerreotypes. This reputation was well-deserved: the Americans by this time were ahead of Europe because not only were their cameras faster but they also used a method of polishing the metal plates which resulted in a far better surface.

Mayall soon developed a reputation for exceptionally large and poetic — indeed, artistic — daguerreotypes. In 1845 before leaving Philadelphia he had produced a series of 10 daguerreotypes illustrating *The Lord's Prayer* in what he saw as a new genre, *photographic fine art.* In this, *…some of the most beautiful and talented ladies of Philadelphia…* [embodied] *… the precepts of this Divine Prayer.* In 1849 he exhibited a "life-sized" portrait in Birmingham which was described as *….the largest picture which the pure pencil of the sunbeam has ever painted.*[15] Later he also produced a copy of a painting, *Bacchus and Ariadne*, which measured 61 x 38cm (24 x 15 in) which, for its time was a wondrous feat.

Mayall was the first to introduce the vignette or what he called, *crayon daguerreotypes* to Britain. While vignettes have been easily made in photographic darkrooms during our lifetimes, it was not so readily done with a daguerreotype where the photographer could only open the lens and let the light do the rest. Invented in Boston and patented in Philadelphia in 1849, and later improved by Mayall, this device was a small clockwork machine which ran a revolving disk in front of the camera lens. In the disk was cut a star-shaped aperture: as the disk revolved, the section of the image opposite the centre of the star received full exposure but the outer edges, opposite the points of the star, received less light and so were increasingly under-exposed to the point where, at the periphery, no image appeared at all.

Mayall along with Claudet, Beard (while he was still in business) and others, including William Edward Killburn, Archibald Lewis Cocke, TR Williams, and

[15] Gernsheim, op. cit. p 141

William Telfer were the famous London daguerreotypists of their time but of course, there were many, many others all over the country who ran photographic studios for better or for worse, artistically and financially, throughout the daguerreotype era in Britain. As in America, by 1860 the daguerreotype's glory days were done and a new era of photography had begun. From now on, except in some printing processes, photographs were made on paper, not on metal plates.

Looking back…

With the benefit of hindsight, can we say what were the pros and cons of the daguerreotype era?

Con:

- Although it looked simple on paper, in practise the daguerreotype process was complicated with much that could easily go wrong;
- Working with mercury in particular, but also with iodine, chlorine and bromine vapours were all serious health hazards;
- The image was never perfectly visible on the plate but had often to be oriented to catch the light at the right angle;
- Copies could not be made: the daguerreotype was a one-off process;
- The metal plates on which the image was made did not permit the transfer of the image to other printing processes as was possible later with paper, film or glass stocks.
- There was no way that a coloured image could be taken: all colouring had to be done afterwards, by hand, by very skilled colourists;
- Given the exposure times required to obtain an image, only fairly static subjects could be photographed: in portraiture, "action" rendered the person blurred or even invisible.
- The image had to be hermetically sealed to avoid discolouration;

Pro:

- Well made, a daguerreotype was a beautiful object, the image floating like a perfect reflection on a shining pond;
- The image, provided it was protected from the atmosphere, was permanent and has provided us with accurate likenesses of people and landscapes in the past;
- In its time, the daguerreotype gave us much on which to build modern photography even if, twenty or so yeas after its invention, it had all but disappeared except among those photographers interested in past technologies.

So, looking back, what were the main discoveries during this period, 1839-1860, which have become part of our mainstream photography?

1. The *camera obscura* evolved into a practical and working camera which was easily modified into the cameras of later eras even though the daguerreotype was long gone;
2. Lenses were greatly improved, particularly by the development of the achromatic lens which allowed light to be focussed at a single plane in the camera rather than in a series of overlapping images depending on the wavelength of the light involved;
3. The knowledge that light at the ultra-violet end of the spectrum is the most chemically active (actinic) while light at the other end, the red-infrared is the least actinic ;
4. This led to the invention of the darkroom with its red safety light;
5. The knowledge that you don't have to wait to see an image but that the latent image can be developed, thus speeding up the process;
6. The invention of the light meter;
7. Photographic magazines;
8. The realisation that all the silver halides are light-sensitive and can be used in conjunction with each other to enhance the production of the image;

In this era we also saw the beginning of several features of later photography: professional women photographers, photo-journalism, bridal photos; lunar and astronomical photography, photo spectroscopy, and an area we did not look into, photo-microscopy.

And, of course, there is the matter of the words *photography* and *photograph*. Although we no longer talk of "painting with sunbeams" or using "Nature's pencil", we still hold an immense respect for the Sun and its ability to help us make images. Unfortunately for the litigious Mr Richard Beard, it was not actually he who first combined the two Greek words to create a new one we have known all our lives: Photography, like the Daguerreotype, came to England from France where it was called *la photographie*….
