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PROTECTING AND EXPLOITING PHOTOGRAPHY THROUGH INTELLECTUAL PROPERTY IN THE LONG NINETEENTH-CENTURY BRITAIN

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Abstract

This paper presents a broad survey examining how the photographic industry in Britain used the patent system, trade-mark and design registration systems to protect and exploit inventions during the nineteenth and early twentieth centuries. It looks at how patents were perceived by the industry, how manufacturers and retailers exploited them, and wider issues which surrounded them, all of which received extensive coverage in the pages of the contemporary photographic press. It does not look at copyright protection for photographs which involved separately.[1]

1) The issue of copyright for photographs is covered in Elena Cooper, *Art and Modern Copyright. The context image*, Cambridge, Cambridge University Press, 2018.

The Legislative framework and international differences

The patent system in England and Wales had developed continuously from the early 1600s making it the world's oldest patent system.[2] Patents were originally designed to stimulate industry by causing the details of the invention to be published and encouraging individuals or firms to exploit inventions, usually through the granting of a monopoly for a set period of time.

By the nineteenth century the system was in desperate need of reform and the Great Exhibition of 1851 acted as a catalyst for this as British manufacturers sought greater protection in the face of growing foreign competition. The 1852 Patent Act established the basis for Britain's modern patent law, replacing separate systems in England and Wales, Scotland and Ireland, although the Act only partially met the demands of reformers.[3]

Despite the Act the Photographic News had by 1860 already run an editorial titled 'The Cost of a Patent' which bemoaned the continued expense and difficulty of obtaining a patent.[4] New legislation in 1883, the Patents, Designs and Trade Marks Act, addressed some of these concerns and codified other areas of intellectual property.

Unlike the American, the British patent system did not require the patentee to show novelty and many patents were simply variants on existing designs rather than a novel designs of apparatus, chemical processes or application of photography.[5] The Photographic Review of Reviews in 1895 bemoaned this taking an 1850s example, it stated:

> We thus see that this colouring of photographs by daubing pigments in oil on the back of the paper after rendering it transparent with varnish, was allowed to be patented by three different individuals within a period of thirteen months, the Patent Office pocketing the fees without a blush.[6]

In Europe differing patent systems were in operation. France established a modern patent registration system by 1844 with the state acting as an active partner in managing patents and their exploitation. In Germany unified national patent legislation was passed in 1877 with the specific aim of encouraging economic development. Switzerland and the Netherlands, for a period, took the view that patents were not morally acceptable, and it was not until 1888 and 1912 respectively that these countries reinstated patent systems – mainly in response to international pressure. Elsewhere, Japan had in 1886 reviewed the various European and

2) A general history of the British patent system is given in Neil Davenport, *The United Kingdom Patent System. A brief history*. Havant: Kenneth Mason 1979, and a more specific history is John Hewish, *Rooms near Chancery Lane. The Patent Office under the Commissioners, 1852-1883*, London: The British Library 2000.
3) Klaus Boehm, *The British Patent System. I. Administration*, London: Cambridge University Press,1967, 14-37.
4) 'The cost of a patent', *Photographic News*, vol. 4, no. 113, 2 November 1860, 313-314.
5) Oliver E. Allen, 'The Power of Patents', *American Heritage*, vol. 41, 6 (September/October, 1990) / http://www.americanheritage.com/articles/magazine/ah/1990/6/ (26.01.06) provides a useful survey of the American patent system.
6) 'Our Patent Office', *Photographic Review of Reviews*, vol. 4, September 1895, 312-313.

American patent systems and passed its first patent law in 1888. It copied many of the features of the American system which it considered superior to those in Europe.[7]

The photographic press

The British photographic press actively reported on issues associated with the patent system and intellectual property. At the most basic level there was the question of whether it was even acceptable to have a system of monopolistic protection. While there were occasional calls to abolish patents altogether this was never seriously supported by the press.

In 1861 Thomas Sutton, himself a patentee, ran an extract from the Saturday Review supporting patent monopoly which he said 'embodies our own views exactly'.[8] When John A. Randall raised the same issue nearly forty years later and Alfred Watkins was quick to support the concept of patents.[9] The issue of protection for manufacturers and economic dominance grew more important throughout the century as Britain's economic position weakened relative to that of America and Germany. Patent reform to reduce costs, to provide international protection for British patentees, and to provide for some form of novelty search were priorities which the photographic press endorsed.

By the latter part of the nineteenth century all the main photographic trade periodicals considered patent matters a key part of their remit. The British Journal of Photography and, later, The Photogram regularly reported on new patents and published extracts of patents in their pages. In 1879 the Photographic News felt the issue of patents was of such importance that it stated:

> To Correspondents. Patents, Trade-Marks, &c.—We have made arrangements to answer through our columns any questions which may be addressed to us respecting patenting inventions and the registration of trade-marks and designs. As these subjects are of growing interest and importance, we invite all our readers in doubt on any point to write to us. It is almost needless to say we make no charge.[10]

Changes to British and international patent law were regularly reported on and given prominence in news and correspondence columns. The annual reports of the Comptroller-General of Patents were editorialised.

I want to turn now to the three main areas of protection for photographic goods.

7) B. Zorina Khan, 'An Economic History of Patent Institutions', http://eh.net/encyclopedia/article/khan.patents (01.01.08) provides a survey of different patent systems on which this section was partly based.
8) *Photographic Notes*, vol. 6, no. 131, 15 September, 1861, 261-264.
9) John A. Randall, 'Photography by Patent', *British Journal of Photography*, vol. 45, no. 2009, 4 November, 1898, 832; Letter from Alfred Watkins, *British Journal of Photography,* vol. 45, no. 2010, 11 November 1898, 735.
10) *Photographic News*, vol. 23, no. 1077, 25 April, 1879, 204.

Design registrations

The design registers which are held at the National Archives in Kew have some relevance for photography but there are only some thirty-eight registrations between 1847, when the first was registered, and 1883, depending on how one defines 'photography'.[11]

Until 1839 there had been copyright protection for some textiles, but most areas of the decorative arts, such as glass, metalwork, ceramics and wallpapers, had no protection at all and this changed with two Acts in that year. The Copyright of Designs Act of 1839 laid the foundations for the modern law on registered designs, giving protection for every new or original design, not just for ornamentation adorning an article, but also to its shape. It also introduced a system of registration and it is these registers which can be consulted.

The Act was quickly replaced by the Ornamental Designs Act of 1842 which sought to confine registration to ornamental designs i.e. those which added something to a product over and above its function and it set different periods of protection from between nine months and three years depending on which class the design was registered. There were later Acts which also affected designs.

Every applicant was required to supply basic details and an illustration of the object itself. After registration proprietors were required to display their name, the registered number and date of registration on the 'Article of Manufacture' itself. Registration protected the decorative elements of the design from being copied and manufactured without permission. The detail of how an item worked – the mechanics of the design – could be protected by a patent.

Of the 38 designs directly relating to photography, the first was granted to Horne, Thornthwaite and Wood for a photographic dark slide. Also featured were cameras, lenses, stereoscopes, dark tents and magic lanterns. Notable amongst the registrations are:

- Thomas Ottewill's 1853 collapsible camera which was the subject of Lewis Carroll's parody poem Hiawatha's Photographing. This was an innovative design which allowed a rigid box form camera to collapse down to something that was much more portable. It was widely copied by other camera manufacturers, suggesting that the registration had little effect.
- George Knight and Company's Cosmorama Stereoscope (Figures 1 and 2)
- Murray and Heath's registered reflectors to evenly disperse light within a stereoscope
- William Rouch's design of portable dark tent
- William Powell Harrison's stereoscopic camera (Figures 3 and 4); and the last in September 1883
- J. F. Shew and Company's photographic dark slide, a similar subject to the first photographic registration of 1847.

Registering a design seems to have been used as an alternative to securing a patent: it was cheaper and easier to do and may have been seen as an alternative, where it was uncertain

11) See: Michael Pritchard, 'The rise of British photographic manufacturing 1839-c.1862: sources and trends' in Pritchard (ed.), *Technology and Art. The birth and early years of photography*, Bath: RPS Historical Group, 1990, pp. 57-65.

Fig. 1 George Knight & Co., Cosmorama stereoscope label. The Cosmorama was the subject of design registration number 3636 of 15 September 1854. Images: Denis Pellerin / London Stereoscopic Archive.

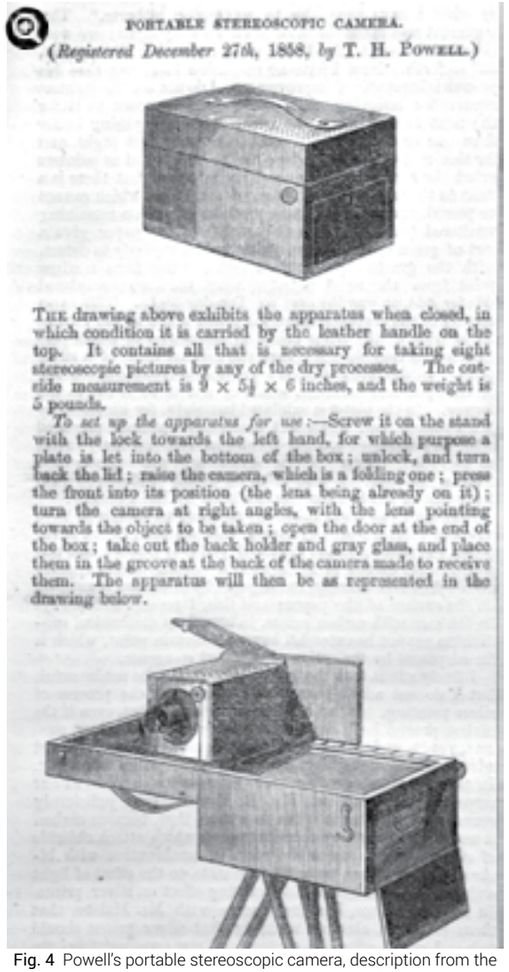
Fig. 2 George Knight & Co., Cosmorama stereoscope label. Images: Denis Pellerin / London Stereoscopic Archive.

that a patent would be granted. Registration would convey a sense of authority and provided, in theory, some limited protection against the design being copied. It appears to have been as much a marketing tool than anything else – and

Fig. 3 William Harrison Powell, design registration for John Harrison Powell's portable camera, no. 4143, 27 December 1858. The National Archives, Kew.

there appears to be only one case of a photography design registrant taking legal action against infringement.

The 1864 case of Rouch v. How attracted considerable attention in the photographic press. As the British Journal of Photography reported:


PORTABLE STEREOSCOPIC CAMERA.

(*Registered December 27th, 1858, by* T. H. Powell.)

The drawing above exhibits the apparatus when closed, in which condition it is carried by the leather handle on the top. It contains all that is necessary for taking eight stereoscopic pictures by any of the dry processes. The outside measurement is 9 × 5½ × 6 inches, and the weight is 5 pounds.

To set up the apparatus for use:—Screw it on the stand with the lock towards the left hand, for which purpose a plate is let into the bottom of the box; unlock, and turn back the lid; raise the camera, which is a folding one; press the front into its position (the lens being already on it); turn the camera at right angles, with the lens pointing towards the object to be taken; open the door at the end of the box; take out the back holder and gray glass, and place them in the groove at the back of the camera made to receive them. The apparatus will then be as represented in the drawing below.

Fig. 4 Powell's portable stereoscopic camera, description from the *Photographic News*, 7 January 1859. Michael Pritchard collection.

> The case of Rouch v. How although not of the same importance to professional photographers [as Talbot v. Laroche], is of more importance than the other to manufacturers of, and dealers in, photographic apparatus, all of whom must feel to a certain extent indebted to these two gentlemen – both of them manufacturers and dealers of reputation – for coming forward to fight a battle from which all may derive experience

The case was important because it showed the increasing importance given by the photographic trade to intellectual property rights. The introduction of trade marking legislation in 1883 with the Patents, Designs, and Trade Marks Act provided the photographic trade with an alternative and a better means of protecting their products.

Trade marks

Increasingly through the nineteenth century trade marks were used as a sign of quality on both materials that had

been patented and to protect objects that had not been patented.[12] The cost of defending a patent could be prohibitive for patentees who, in many cases, saw little financial return from their invention. As early as 1864 Spencer was highlighting the trade mark on his paper:

> Mr Spencer has learnt with regret that Albumenized Paper has for some time past been sold as his which has not been manufactured by him. To put a stop to this practice, and as a protection to himself and a guarantee to purchasers of this well-known article, every sheet will in future be impressed with his name … and each Ream with bear a distinctive Label and Trade Mark. [13]

In 1868 Lampray & Co. claimed that every sheet of sensitised paper: 'is stamped Lampray & Co., London and any infringement or colourable imitation of this Trade Mark will be proceeded against' [14]

The Merchandise Marks Acts of 1862 and 1887 and gave manufacturers increased protection and the Trade Marks Registration Act of 1875 recognised the trade mark as intellectual property and gave the right to sue for infringement.[15] (Figure 5) The strengthening of the law and the increasing commercial pressures between photographic manufacturers from the 1880s led to a rash of court case cases over trade mark infringement. For example, in 1886 The Derby Photographic Dry Plate Company took issue with Barker, Pollard, Graham & Co. over their use of the word 'Derwent' to described their products which the Derby company claimed was too close to their 'Derby' trade mark which had been registered in December 1885.[16]

The biggest legal case during the period was over the use of 'Britannia Dry Plates' between the manufacturer of the plates, Alfred Harman, and Marion & Company, which sold the plates. A dispute between the two parties had grown increasingly acrimonious and Harman stopped making the plates for Marion's and began retailing them on his own account and applied for an injunction to stop Marion from selling their version of the plate under the same name.

The case was the subject of a decision in the High Court of Chancery in February 1886, and won by Marion as it was the trade mark owner. Harman was only the manufacturer.[17] Both parties advertised in the same issue of the British Journal of Photography: Marion highlighting its success and the right to use the name and Harman giving notice 'that, in future, these well-known Plates will bear the title of "The Ilford Dry Plates"'.[18]


VOL. 15. No. 176.

THE

TRADE MARKS JOURNAL.

Wednesday, July 29th, 1891.

APPLICATIONS TO REGISTER TRADE MARKS.

LISTS OF—TRADE MARKS REGISTERED—
SUBSEQUENT PROPRIETORS—REGISTRATIONS
RENEWED—REGISTRATIONS EXPIRED.

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,

PRICE SIXPENCE.

Fig.5 *Trade Marks Journal*, 29 July 1891. The journal was a weekly publication introduced in 1876 and still published. It reported trade mark applications, accepted and discontinued marks. Michael Pritchard collection.


REGISTER OF TRADE NAMES

Fig.6 British Photographic Manufacturers Association. *The Photographic Industry of Great Britain 1918*, pp. 98-99, showing current trade marks from British photographic manufacturers. Michael Pritchard collection.

Photographic Patents: General trends

Although design registrations and trade marks were reported on and used by photographic manufacturers, it was the patent that saw the greatest use. (Figures 6, 7 and 8)

The first British photographic patent was granted to Miles Berry, a well-known patent agent, on behalf of Louis Jacques

12) See: The Patent Office, A Century of Trade Marks, London: HMSO 1976; David C. Newton, *Trade Marks. An introductory guide and bibliography*, London: The British Library 1991, 13-15, 17.
13) Advertisement. *British Journal of Photography,* vol. 11, no. 239, 2 December, 1864, i.
14) Advertisement. *British Journal of Photography*, vol. 15, no. 420, 22 May, 1868, vii.
15) *Trade Marks Journal. List of Applications for the Registration of Trade Marks*, London: HMSO. The Trade Mark Journal was the official register of trade marks and their owners and was established after the passing of the 1875 Trade Marks Registration Act and modified under the Patents, Designs and Trade Marks Acts of 1883 and 1888. A recent survey of the *TMJ* from its first publication in 1876 (no. 1) to 1900 (no. 1187) in December 1900 shows a relatively small number but increasing number of photographic companies making use of trade marks throughout the period.
16) '*Photography in Court'. British Journal of Photography*, vol. 33 no. 1344, 5 February 1886, 92.
17) *British Journal of Photography*, vol. 33, no. 1347, 26 February, 1886, 129.
18) *British Journal of Photography*, vol. 33, no. 1347, 26 February, 1886, iii, xv.

Fig.7 British Photographic Manufacturers Association. *The Photographic Industry of Great Britain 1918*, pp. 100-103. Michael Pritchard collection.

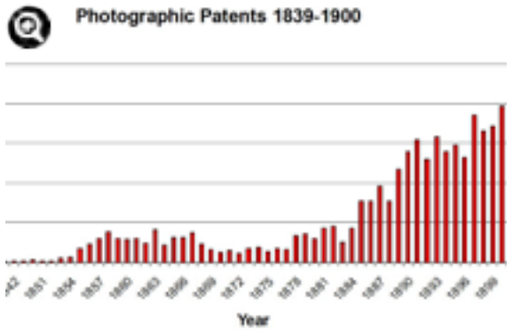


Fig.9 British patents for photography 1839-1900, based on patent abridgements.

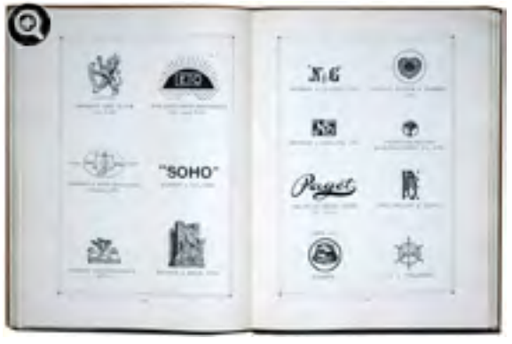


Fig.8 British Photographic Manufacturers Association. *The Photographic Industry of Great Britain 1918*, pp. 100-103. Michael Pritchard collection.

Mandé Daguerre and Joseph Isidore Niépce, junior, on 14 August 1839 and over the course of the next sixty years to 1900 some 3209 photographic patents were granted .[19] Patent activity over this period was not consistent and as figure 9 shows there was a general increase in patent activity throughout the period with marked increases after the 1852 and 1883 Acts, a consequence of the simplification of the application process and the reduction in cost.

Photographic patents showed a steeper rise in the rate of patent activity than for patents as a whole suggesting other factors associated with photography were active. [20] The failure of W. H. F. Talbot to substantiate his claim to the collodion process which had held back other experimenters freed up this area for patentees from the mid-1850s and in the 1880s the development of dry plates and portable hand cameras linked to the rapid growth of amateur photography acted as an incentive to inventors.

Patent Exploitation

It was not simply enough to secure a patent. A method of exploiting or licensing it to a third party on either an exclusive or royalty basis was needed if the patentee was to profit from it. What is immediately apparent from a review of British photographic patents is that the over-whelming majority between 1839 and 1900 were never exploited commercial by either the patentee or a licensee. Those that were are the exception. It is difficult to quantify how many patents were exploited commercially as they are often difficult to identify from surviving equipment or materials. From the author's database of all British photographic patents, and an examination of all patent specifications, it would seem likely that fewer than 15 per cent enjoyed any commercial success.

The daguerreotype patent which was licensed to Richard Beard is the earliest example of the commercial exploitation of a photographic patent and has been well-covered in the literature.[21] The Heathcotes record a series of geographically-based licenses which Beard negotiated on an individual basis with his sub-licensees. In addition, Beard would, on occasion, require a royalty on each portrait taken and would also supply the apparatus required for taking portraits. Talbot's own patent for the Calotype process was the subject of a patent in 1841 and was licensed to photographers. According to Arnold, Henry Collen, Talbot's first licensee, was to pay Talbot thirty per cent of his takings. During the three years Collen worked as a Calotypist the total amount due to Talbot did not exceed £200.[22]

Both processes had the novelty associated with the discovery of photography and by the 1850s there was more commercial realism associated with photographic patents and in their potential value when exploited. The main methods are exploitation are examined below:

Direct exploitation

Some patentees were able to exploit their own patents and undertake the commercial manufacture of their invention.

19) The Daguerre patent was number 8194 of 1839. For ease of reference patents are cited in the form: patent number and year. In Britain, unlike the United States, there was no sequential numbering of patents until 1916 when numbering started at 100,001. Until then patents were numbered on an annual basis. The number of 3209 photographic patents is approximate as some patents that might be considered photographic were included in other classes of patents and the photographic class included patents that are clearly not photographic, for example, for emulsifying milk.

20) The data for this has been compiled by the author. A searchable database of all British photographic patents from 1839-1900 has been built, with each patent categorised to give visibility to some of the apparent trends.

21) See: Bernard & Pauline Heathcote, *A Faithful Likeness. The First Photographic Portrait Studios in the British Isles 1841 to 1855,* Lowdham: Bernard & Pauline Heathcote 2002; B. V. & P. F. Heathcote, 'Richard Beard: An Ingenious and Enterprising Patentee' *History of Photography* vol. 3, 4 (October 1979), 313-329; R. Derek Wood, 'The Daguerreotype in England: Some Primary Material Relating to Beard's Lawsuits', *History of Photography*, 3, no. 4 (October 1979), 305-9; http://www.midley.co.uk/ (01.01.08).

22) H. J. P. Arnold, *William Henry Fox Talbot*, London: Hutchinson Benham Ltd 1977, 138-141.

Thomas Grubb's improved photographic lens 'was manufactured under the license and supervision of the patentee, by his son, Mr Henry T. Grubb'.[23]

The Autotype Company manufactured the materials needed to produce autotypes and also authorised other manufacturers to do this same. In an 1877 advertisement it stated that Marion and Company is 'empowered to manufacture patent carbon tissue and transfer papers'.[24] B. J. Edwards, who was always quick to protect his patent rights, stated: 'we have made arrangements for granting sub-licences to photographers who may desire to prepare their own isochromatic plates'. At the same time he was producing his own plates according to his patent.[25]

In the 1890s the patentee Arthur S. Newman entered into partnership with Julio Guardia to manufacture cameras and shutters 'under the well-known Newman patents, the exclusive rights to which they hold'.[26] With the Thornton-Pickard Manufacturing company, John E. Thornton was the initial patentee and inventor with Edgar Pickard providing the business and financial backing to commercialise them.[27]

Licensing

From reports and advertisements in the photographic press it seems that licensing was often the preferred means of a patentee exploiting an invention. This had the advantage that the patentee had no capital outlay in setting up manufacturing facilities and could pass on the responsibility for commercial success to the licensee. If a royalty were involved the patentee had a vested interest in promoting the product. All patentees had an interest in defending their invention from being illegally copied.

Some patentees were involved in licensing directly, for example, D. A. Woodward, the patentee of the solar camera, gave the right to manufacture it to John Atkinson of Liverpool but retained the licensing: 'No camera will be sold or used without being accompanied by a printed or written License to use the same, signed by D. A. Woodward, Patentee'.[28] The validity of Woodward's patent was subsequently questioned and eventually it was allowed to lapse.[29] Arthur J. Melhuish patented the first all metal bodied camera which he had made for him, while he retained control of the selling and distribution of the camera.[30]

Other patentees tried advertising to try and secure a partner to exploit their patent. In 1859 Mr Hartt placed the following advertisement in Photographic News:

> To photographic dealers and manufacturers. The inventor of important improvements in Photographic Apparatus is desirous of finding a Party to complete and make for the invention, which has already received provisional protection. For particulars, apply to the Inventor, Mr Hartt, Horncastle, or Mr Spence, Patent Agent, 50 Chancery Lane, E.C. [31]

Thomas Sutton was prepared to license the manufacture of his 'New Instantaneous and Portrait camera' to 'any of the first class firms' on 'reasonable terms'. [32]

The early photographic processes were frequently licensed although there was a wide variation in the charges made. As early as 1855, A. Rollason was advertising his collodion transfers and inviting applications for licenses:

> The patentee will grant licenses to public operators at £5 per annum; and to amateurs, upon the receipt of one guinea for practical instructions, he will grant a permit, and will otherwise meet the photographic public in a liberal spirit.[33]

The Autotype Company wrote in 1877 that 'we have 363 licensees on our books' without specifying the price of a license, but claiming terms were 'not onerous'.[34] Alfred Harman was prepared to grant licenses to operate his process for finishing enlargements which was the subject of an 1878 patent and advertised: 'charge for licence and instruction, 10 guineas'[35] A successful invention could be very profitable. B. J. Edwards, at the height of the demand for dry plates, held a key patent for a plate-coating machine:

> …the ingenuity of our friend, Mr B J Edwards, whose plate-coating machine figures in so many dry-plate factories. We are told that "Mr Edwards rents out on royalty twenty of his patented plate-coating machines at a yearly rent of 500 dols. Per machine. One company uses five of them. Mr Edwards was a photographer, knew the needs, and applied his inventive ingenuity, finally accomplishing a successful result…[36]

23) Advertisement. *Photographic News*, vol. 2, no. 32, 15 April, 1859, v. This relates to British patent number 2574 (1857).
24) Advertisement. *British Journal of Photography*, vol. 24, no. 898, 20 July 1877, vii.
25) Letter from B. J. Edwards. *British Journal of Photography,* vol. 35, no. 1448, 3 February 1888, 80.
26) *British Journal of Photography*, vol. 38, no. 1649, 11 December 1891, 800.
27) Douglas A. Rendell, *The Thornton-Pickard Story*, Prudhoe: Photographic Collectors Club of Great Britain 1992, 6-11.
28) Advertisement. *British Journal of Photography*, vol. 7, no. 109, 1 January 1860, ix.
29) 'The Solar Camera', *Photographic News*, vol. 5, no. 146, 21 June, 1861, 289. Woodward's patent was number 2459 of 1857.
30) A. J. Melhuish, 'The Patent Metal Camera', *British Journal of Photography*, vol. 7, no. 109, 1 January 1860. One example of the camera is known and was offered at Christie's and is now in the collection of the National Media Museum, Bradford.
31) Advertisement. *Photographic News,* vol. 2, no. 49, 12 August, 1859, iii. This may relate to British patent 1139 of 1859 by Frederic William Hart [sic] for a photographic printing frame.
32) Advertisement. *Photographic Notes*, vol. 6, no. 131, 15 September 1861, n.p.
33) Advertisement. *Liverpool Photographic Journal,* vol. 2, no. 23, 10 November, 1855, n.p.
34) Letter from the Autotype Company. *British Journal of Photography*, vol. 24, no. 905, 14 September 1877, 443. The Autotype Company had itself purchased from John Robert Johnson and Ernest Edwards their interest in a contract with the patentee of the carbon printing process, J. W. Swan. The company's letter was a stout defence of their patent rights and licensing methods in response to comments made by the BJP's contributor 'A Peripatetic Photographer'.
35) British patent no. 2174 (1878). Advertisements, *Photographic News*, vol. 22, 1031, 7 June 1878, vii.
36) *British Journal of Photography*, vol. 39, no. 1928, 16 August, 1895, 519. The BJP was quoting from a paragraph headed 'Royalties' in Scientific American.

Licenses for working Squire and Co.'s Elephantinon process for colouring photographs were available at five guineas each.[37] Unusually this made no distinction between amateur and professional use, probably because there was an assumption that it would only be utilised by commercial studios. More usually patentees differentiated between professional and amateur use in terms of fees, on the basis that professionals were likely to be able to pay more for a process which might give them commercial advantage and a small, or no charge, for amateurs was preferable than nothing - especially if there was the opportunity to sell the materials needed to operate a process.

The British Journal of Photography, in editorial comment on the wothlytype process noted:

> We believe that it is now contemplated by the Directors of the United Association of Photography, Limited, to make a single charge of ten guineas to professional photographers desirous of using the Wothlytype process; but that no charge will be made to amateurs who use it solely for themselves, and not for profit. We also understand that the prices to be charged for materials, together with full particulars, will be given next week. [38]

The wothlytype had limited success. The platinotype process, which was much more successful, was also licensed and from 1882 the Platinotype Company charged a modest fee of five shillings to both professional and amateurs.[39] By 1889 the company advertised 'no license is now required for printing on the patented sensitised papers manufactured by the Platinotype Company'.[40] The popularity of the process and resultant profit on the sale of chemicals and papers was more significant; the need for a license acted as a barrier to these sales.

From the 1880s fewer processes were being patented and there was more limited commercial exploitation. The rise of the amateur photographer made the supply of chemicals and materials for home use more commercially important. One of the first significant chemicals patented was the subject of British patent 5207 of 26 March 1889 with the compound being sold under the trade name Eikonogen.[41] Marion and Company of London had the new developer for sale by July and it was an instant success attracting wide editorial comment and correspondence in the photographic press.[42] Patent-wise there was less enthusiasm as other manufacturers in Germany claimed priority with their own chemical compounds. By 1893 these had been resolved:

> We are requested to note that the patent disputes between the manufacturers of amidol, metol, glycin, diamidophenol, &c., have been settled amicably by mutual consent, and in future the sale of these developers in Britain and the Colonies will be effected through Messrs. Fuerst and Messrs Arthur Schwarz, in London, being sole agents for Professor Hauff, of Fuerbach, and Dr Andresen, of Berlin, respectively, All photographic dealers will now supply these developers. [43]

German patentees, reflecting the growth of the German chemical industry, were increasingly evident in patenting compounds for photographic use from the 1890s.

Buying patent rights

Rather than acting as a licensee Lampray and Company bought out the entire patent of Thomas Sutton for a modest £10. The firm was the London agent for Thomas Sutton's paper advertising: 'Sutton's patent albumenized paper…Manufactories – Hammersmith, Westminster, & Jersey'.[44] When Messrs Ordish and Company began advertising the same paper and claimed to be sole agents for its sale Lampray stated this statement was 'entirely false…[and] I have instructed my solicitor to take the necessary proceedings to punish the authors'. He stated:

> I bought Mr Sutton's patent years ago for £10, and, in addition, I paid his patent agent's bill. Subsequently Mr Sutton was employed by me for several years in giving the paper its preliminary coating before I placed it in the hands of my work-people for albumenising [45]

Patents that could no longer be successfully exploited were, where possible, sold on as the British Journal of Photography reported:

> We are informed that Messrs R W Thomas & Co. have disposed of the patent rights of the Sandell plate for Germany to a firm of German plate makers. [46]

In the case of a company failing then patents were seen as important assets with a value to be realised. When McKellen, Limited, was sold in 1901 the buyer, Richard H. Risk purchased: 'The stock of cameras and other photographic goods, with the machinery and all patents, belonging to the firm'.[47]

37) Advertisement, *Photographic News*, vol. 5, no. 171, 13 December 1861, i.
38) 'Wothlytype Process', *British Journal of Photography*, vol. 11, no. 235, 4 November 1864, 441. The Wothlytype process was the subject of patent no. 2347 of 1864 and used uranium salts to produce a photographic image.
39) Advertisement. *British Journal of Photography*, vol. 29, no. 1131, 6 January 1882, vii.
40) Advertisement. *British Journal of Photography,* vol. 36, no. 1504, 1 March 1889, ii.
41) Granted to M. Andresen [sic], the patent abridgement summarised the patent as: 'relates to a developing solution the eseential portion of which consists of diamido-napthalene, amidonaphthol, dioxynaphthlalene, or their sulpho acids. One or more of these substances may be used'.
42) Advertisement. *British Journal of Photography,* vol. 36, no. 1524, 19 July 1889, xix.
43) 'Notes'. *Photographic News*, vol. 37, no. 1807, 21 April, 1893, 242.
44) Advertisement. *British Journal of Photography*, vol. 12, no. 265, 9 June 1865, vii.
45) T. Lampray, 'Sutton's Patent Albumenized Paper', *British Journal of Photography*, vol. 22, no. 768, 22 January 1875, 48. Letter from Thomas Sutton, *British Journal of Photography*, vol. 22, no. 770, 5 February 1875, 71.
46) 'News and Notes', *British Journal of Photography,* vol. 41, no. 1766, 9 March 1894, 154. The Sandell patents had a chequered history with Sandell himself establishing two companies to exploit his patents, both of which had limited commercial success and ultimately failed.
47) *Photographic News*, vol. 45, no. 295. New Series, 23 August, 1901, 543.

In the case of Taylor, Taylor & Hobson, which was primarily a lens makers and optical engineers, rather the camara makers, the Newman and Guardia Company took over TTH's patent for a reflex camera, to which it had made further improvements. The camera was marketed as the N&G Princess reflex where it extended N&G's own camera range.[48]

On occasion a patentee, having initially worked a patent, would set up a separate company to take over the rights:

> We are informed that the Tella film camera having proved such a great success, Messrs Adams & Co. have sold the patent rights to the Tella Camera Company, Limited, who will shortly open convenient premises at 110, Shaftesbury-avenue, with a full stock. [49]

In this case A. L. Adams, the patentee and owner of A. Adams & Co., remained a director of the new company. In another example, Alfred Watkins, having initially licensed R. Field & Company of Birmingham to produce his exposure meters, bought out their licence and established his own company to manufacture his invention:

> Mr Alfred Watkins has purchased from Messrs R Field & Co., Suffolk Street, Birmingham, their interest as licensees, their goodwill, and all book debts relating to the Watkins's exposure meters and eikronometer, and will carry on the business at the Imperial Mills, Hereford, under the title of the Watkins' Meter Company. [50]

Patent protection

If commercial exploitation could be a somewhat of a hit or miss affair the protection of a patent from unlicensed use was necessary to preserve financial success, although legal action could be expensive and unsatisfactory. This was exacerbated by the lack of a requirement to show novelty in British patents which led to frequent disputes between patentees.

The 1864 case of Rouch v. How, noted earlier, although not relating to a patent – it related to a registered design – was important because it showed the increasing importance being given to intellectual property rights. As the early Beard and Talbot cases had shown patents were a more serious affair with, potentially, greater financial benefit and there were a number of legal cases after the 1850s where patentees attempted to assert their rights.

Actions

In 1871 B. J. Edwards, who fought a number of court cases to protect his patents, undertook the first of these against Colonel Stuart Wortley in an attempt to protect his patent combination printing frame. This was being made for him by the camera maker Patrick Meagher. The case, which had been threatened for several months, was concluded in December and after extensive submissions the Vice-Chancellor declared the patent invalid as Edwards had 'not given such a definite indication of the exact points that he claimed as novel to make his patent good; the improvement had not be described nor had the novelty been defined'.[51]

Edwards defended what was a far more valuable patent for his plate coating machine in 1884 when he was criticised by another plate maker, Samuel Fry, for trying to patent a machine which Fry claimed was already in use. Edwards defended his patent with the justification:

> I may add that the number of applications I have already received from plate-makers in various countries is alone sufficient evidence of the novelty and value of my invention

He secured his right to the patent, and in an extensive advertisement for the machine which strongly highlighted the fact it was patented, he offered an annual licence or hire of the machine and warned against infringement. The machine was widely adopted and claimed to be 'successfully worked by the principal Dry-Plate Manufacturers in Great Britain and on the Continent'.[52] As Scientific American noted in 1895 Edwards enjoyed a significant income from its exploitation.

Edwards had a dispute with a firm manufacturing an orthochromatic photographic emulsion for which he held the sole rights for 'Great Britain and the Colonies' from the patentees Attout and Clayson.[53] The infringers settled without resorting to court:

> In consequence of a dispute having arisen as to Patent Right, Messrs Dixon & Son Discontinue the issue of the Dixon & Gray Orthochromatic Plates [54]

There were two further notable patent cases relating to photographic patents both involving the London firm of Shew. The first case in 1892 Skinner & Co. v. Shew & Co. related to the design of a hand camera which had been the subject of a Shew patent.[55] The second, in 1896, Shew v. The Sociéte des Lunetiers involved the latter's infringement of Shew's patent for the Eclipse camera.[56] In the first, Skinner took action

48) 'Taylor, Taylor & Hobson Reflex Cameras', *British Journal of Photography,* vol. 56, no. 2540, 8 January 1909, 27. TTH's remaining stock of cameras were sold off at a reduced price 'and in the meantime the new model, with improvements, is receiving the attention of Messrs Newman and Guardia, at the their works, and should be ready in the course of a very short time'
49) 'Ex Cathedra', *British Journal of Photography*, vol. 46, no. 2023, 10 February 1899, 82.
50) *Photographic News,* vol. 44, no. 254 New Series, 9 November 1900, 738.
51) 'Edwards's patent combination printing-frame', *British Journal of Photography*, vol. 18, no. 605, 8 December 1871, 576-577.
52) Letter from Samuel Fry, *British Journal of Photography*, vol. 31, no. 1271, 12 September, 1884, 590; Letter from B. J. Edward, *British Journal of Photography*, vol. 31, no. 1272, 19 September, 1884, 606-607; Advertisement, *British Journal of Photography*, vol. 32, no. 1336, 11 December 1885, *supplement*. The Edwards patent at issue was number 8643 (1884).
53) Advertisement. *British Journal of Photography*, vol. 34, no. 1392, 7 January, 1887, supplement. The original patent was 101 of 1883 for sensitised plates.
54) Advertisement. *Photographic News,* vol. 31, no. 1482, 28 January 1887, v.
55) 'An important Patent law case', *British Journal of Photography*, vol. 39, no. 1679, 8 July 1892, 441-442.
56) 'Ex Cathedra' and 'Important patent case', *British Journal of Photography*, vol. 43, no. 1894, 21 August 1896, 529, 539-540. 'Legal', T*he Photographic Dealer*, August 1896, 58-59.

against Shew after being threatened over a new hand camera which they had asked the London Stereoscopic Company to make for them and which Shew claimed infringed its 1884 and 1885 patents. Shew lost the case over a point of law. In the second case Shew sued over infringement and won.

In 1910 a dispute over patents relating to reflex cameras also ended in court. George Nicolls claimed damages against A. Kershaw & Son of Leeds. Nicoll's had patented a reflex mechanism in 1904 which was built into cameras made by Spiers and Pond and sold by several firms from December 1907. Kershaw's own patent of 1904 was included in a camera that was made by them and sold by several firms, principally by Marion & Co. as the Soho reflex camera. Judgment was given for Kershaw with the court ruling that there had been no patent infringement.[57]

Rather than resorting to the expense of a court case, public apologies were often solicited. In 1864 J. H. Dallmeyer forewent legal proceedings and obtained a public apology from Charles Burr for substituting Dallmeyer lenses for his own.[58] In 1888 W. J. Lancaster of Birmingham received a public apology in the photographic press from another Birmingham camera manufacturer for infringing his 1887 patent for 'Improvements in Photographic Cameras'.[59]

Sometimes an amicable resolution was possible. In 1903 E. Merck of London unwittingly infringed John J. Griffin and Son' patent for packaged photographic chemicals and was able to make 'arrangements with Messrs John J. Griffin and Sons, which enables me to continue the supply of photographic chemicals in cartridges with glass partitions'.[60]

Threats

Photographic patentees often resorted to advertising the threat of proceedings against infringers of photographic patents rather taking legal action. R. W. Thomas in his advertisement for his patent box tent stated:

> Caution to Manufacturers and others. Proceedings in Chancery will be taken against any person or persons infringing Mr Thomas's Patent…[61]

James Cadett advertised:

> The patentee having received intimation that his rights are being infringed, We are instructed to take immediate proceedings against any person or persons making or selling photographic apparatus actuated in any way by pneumatic appliances. Fitch & Fitch,.. solicitors for Mr Cadett.[62]

In both cases, despite many apparent copies of both patents, no legal action appears to have been taken.

Failure to patent

The lack of completing the patent process or renewing a patent could also have an impact on a patentee's exploitation of it. W. J Stillman claimed to have invented and taken out a provisional patent for the folding baseboard on a camera. He sent drawings to Meagher who claimed the design was not workable and eventually had the camera made by George Hare. Stillman was 'subsequently to see the camera as later constructed by Mr Hare in Meagher's catalogue without any credit'.[63]

In one case dating from c.1858, E. Edwards, a patent agent, who did not patent his design for a stereoscopic camera still benefited when he was approached by the photographic manufacturer W. W. Rouch who had made his prototype: 'Mr Rouch obtained my consent to continue the manufacture of this apparatus, and supplied a considerable number, not without pecuniary advantage to myself'.[64] The opposite applied to Henry Proctor who in 1887 noted that he had made a detective camera similar to one recently patented by A. S. Newman. He had made no patent application and therefore had no grounds to complain.[65]

More significant was the public dispute surround the Rowsell graphoscope for viewing photographs and stereographs which became extremely popular in the later 1860s and 1870s (Figures 10 and 11). C. J. Rowsell's patent 270 of 1 February 1864 for 'Improvements in Apparatus for Viewing Photographs' was never completed and Rowsell consequently lost out on the commercial success of the graphoscope. The camera maker George Hare of London was said to be the most extensive manufacturer of graphoscopes in Europe.[66]

Fig. 10 and 11 Rowsell patent graphoscope and detail of the label. Images: Denis Pellerin / London Stereoscopic Archive.

57) 'Reflex camera lawsuit', *British Journal of Photography,* vol. 57, no. 2594, 21 January, 1910, 52-53, 57; no. 2595, 28 January, 1910, 60-61, 72-73.
58) Advertisement. B*ritish Journal of Photography*, vol. 11, no. 216, 15 June 1864, v. Burr was made to take out advertisements in the B*JP and Photographic News* apologising for the passing off of goods.
59) Advertisement. *Photographic News*, vol. 32, no. 1541, 16 March, 1888, xii. Shaw's apology was made in front of a solicitor and was advertised in four journals.
60) Letters to the Editor. *Photographic Notes*, vol. 46, no. 383, New Series, 1 May, 1903, 286.
61) Advertisement. *Photographic News*, vol. 9, no. 351, 26 May 1865, vii. Thomas's patent for 'Developing-tents and the like' was number 2122 of 29 August 1864. There were a number of manufacturers producing similar devices and the threat of action was probably made explicit as any court case to uphold his patent would have been expensive and difficult to win.
62) Advertisement. *Photographic News*, vol. 25, no. 1205, 7 October 1881, x.
63) Letter from W. J. Stillman. *British Journal of Phtography,* vol. 44, no. 1964, 24 December 1897, 832.
64) Letter from E. Edwards. *British Journal of Photography*, vol. 19, no. 609, 5 January 1872, 5.
65) Letter from Henry R. Proctor. *British Journal of Photography*, vol. 34, no. 1413, 3 June 1887, 351.
66) 'The Graphoscope', *British Journal of Photography,* vol. 18, no. 564, 24 February 1871, 84-85.

Summarising the situation the British Journal of Photography stated:

> Some of our metropolitan camera-makers having added to their usual branches of manufacture the production of an article now known as a "graphoscope", Mr Rowsell has written to a contemporary stigmatising such conduct as unfair and dishonest.... Mr Rowsell did not complete his patent and the graphoscope has, therefore, become the property of the public [67]

James Forrest's patented plate glass substitute was a cheaper alternative to Chance Brothers & Co.'s glass for photographic plates and was popular between 1872 and 1887.[68] It was also widely imitated but Forrest, rather than issues threats or undertake legal action, encouraged purchasers to check for the trade mark:

Caution. We are extremely annoyed to find that spurious imitations of our Patent Plate Substitute Glass are being sold to the Public under our name. Please observe that none are genuine unless the packets are labelled with our Trade Mark [F]. J. A. Forrest & Co., Glass Manufacturers, 58 Lime Street, Liverpool. [69]

The patent as a marketing tool

One aspect of the patent which has not been widely discussed by historians is the role of the patent in advertising, as a promotional device. Throughout the period 1840 to 1910 having a patent associated with a particular piece of equipment or process conferred a status to the product that was not simply highlighting an improvement or ensuring it was not copied. Manufacturers' advertisements frequently emphasised the presence of a patent by quoting 'protected by patent' or 'patented' and including the royal arms. This was more than simply a warning to potential infringers: it was a positive endorsement of the novelty and efficacy of the product.

Retailers and agents for patentees also promoted the presence of patent to their clientele. Much of Richard Beard's advertising for the daguerreotype noted its patented status. Richard Kennett in 1874 stated that he will 'on and after the 2nd of March, issue his patent Sensitised Gelatine Pellicle'.[70] The makers of cameras and photographic apparatus, especially in the period before the 1880s, included the patented status in their advertisements. Other companies such as the Patent Dry Collodion Plate Company of Birmingham and Patent Films Syndicate Limited included the presence of the patent in their business name. [71]

How much the presence of a patent was noted by a purchaser or added to the sale of a product is impossible to quantify. What it would do was to add to a sense of originality and gravitas about a particular product, the detail of which did not need to be further specified. (Figures 12 and 13)

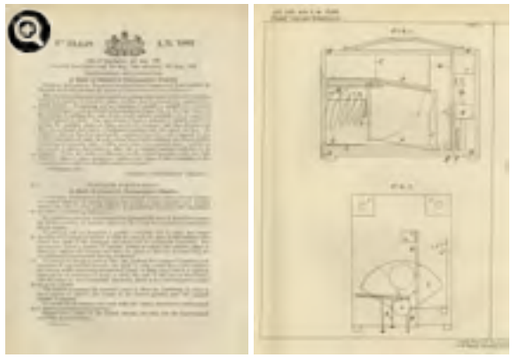


Fig. 12 and 13 British patent specifications no. 13,448 of 1891, for a hand or detective camera by George Frederick Fraas.

Increasingly by the turn of the century the trade mark and trade name had overtaken this function as more careful marketing and advertising to endorse a brand rather than particular products became the norm, although for true novelties the patent still had this role to play.

Conclusion

Photography was active, but not exceptional, in the way that individuals and companies used design registrations, trade marks and patents to protect, commercialise and market new technical designs, processes, optics and chemistry. Other areas products such as scientific instruments, sewing machines and other consumer products also saw similar trajectories.

Patents were important in offering protection against the copying of innovations although cost was a disincentive. The introduction of trade marks (which could include names as well as designs) became more widely used with their introduction and a register from January 1876, showing the mark offered both protection against infringement and a marketing opportunity.

The cost of taking out these protections was a factor in which was chosen and, of course, enforcing rights came with a legal cost and there are few examples of patents during this period being enforced. The use of trade names and marks being more popular at the end of the century as, only those novelties that justified it or had some potential commercial return, could justify being patented. However, many trade names and marks were not formally registered.

Where there was a commercial reason to do so patents were licenced and patentees were also active in protecting their rights from infringement. The presence of a patent was

67) *British Journal of Photography*, vol. 17, no. 506, 14 January, 1870, 14. Paul Wing, *Stereoscopes. The first one hundred years*, Nashua: Transition Publishing 1996, 131-132.
68) 'News and Notes'. *British Journal of Photography,* vol. 42 no. 1842, 23 August, 1895, 540. Forrest's plate glass substitute sold for an average of 1s per superficial foot against 2s 9d for Chance Brothers & Co.'s patent plate glass. Forrest erected a factory to supply his substitute and it remained popular until glass from Belgium superseded it.
69) Advertisement. *British Journal of Photography,* vol. 17, no. 548, 4 November 1870, iv.
70) Advertisement. *British Journal of Photography,* vol. 21, no. 719, 13 February 1874, iv.
71) The Patent Dry Collodion Plate Company was formed by Dr Richard Hill Norris to exploit his patent number 2029 of 1 September 1856 for an improved dry collodion. The Hill Norris collodion was very sensitive and was popular until the 1870s. The Patent Films Syndicate Ltd was registered in 1892 (National Archives, BT 31/5428/37468).

also seen as a marketing opportunity, similar to a trade mark where its use for marketing was implicit.

Patent, trade marks and intellectual property offers a fertile ground for examining the development of photography from a number of perspectives it remains under-researched and it is hoped that this paper has shown its potential.