

THE TALBOTYPE ESTABLISHMENT AT READING—1844 to 1847

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IN THE MID-1840s a photographic business operated in Reading which at the time was unique in its purpose and in its method of operation. The Reading establishment (Fig. 1) attempted to extend the scope of photography, particularly in the field of book illustration, and to exemplify and advertise the advantages of the negative/positive photographic process over the direct positive daguerreotype process.

William Henry Fox Talbot had invented the talbotype process¹ in September 1840 and applied for a patent six months later. He believed his process was superior to the daguerreotype process but his initial endeavours to compete with that rival process were abortive. The early daguerreotypists were making small fortunes from their portrait studios. The daguerreotype² required shorter exposures and the completed portraits were sharper and more permanent. The daguerreotype process appeared to the operatives to be more reliable and the results, gilt-framed and glazed and enclosed in plush-lined morocco leather cases, must have appeared more precious than the flimsy, light-toned, paper talbotype prints.

The first licensee of the talbotype process was Henry Collen, a portrait artist specializing in miniatures, who operated a studio in London in 1841 and 1842. He appears to have abandoned the process

after about a year. Antoine Claudet, one of the first daguerreotypists in London, was approached with an offer of a licence in 1842, but he hesitated before accepting in 1844. From a profit-and-loss viewpoint the talbotype was a risky enterprise in the early 1840s².

By the summer of 1843 Talbot had rectified some of the defects of the patented process. He was now using sodium thiosulphate (hypo) as his fixative in place of the sodium halides he had used earlier. The negatives fixed with hypo were more permanent and more transparent and from them he could print a greater number of positives. The positive prints were also in more pleasing tones. Talbot was ready to mass-produce talbotypes.

THE OPENING OF THE READING ESTABLISHMENT
Sometime during the winter of 1843-44, Talbot commissioned his assistant, Nicholaas Henneman (Fig. 2), who had helped to perfect the new process, to establish a talbotype printing studio in Reading at a house in Russell Terrace which had previously been a private school. The precise date of Henneman's arrival in the Berkshire market town cannot be ascertained but it is clear from the following comment in the *Reading Mercury* that he was well established at his studio by 2 March 1844:

Figs. 1A and 1B. Talbotypes: The rear of the establishment at Russell Terrace, Reading

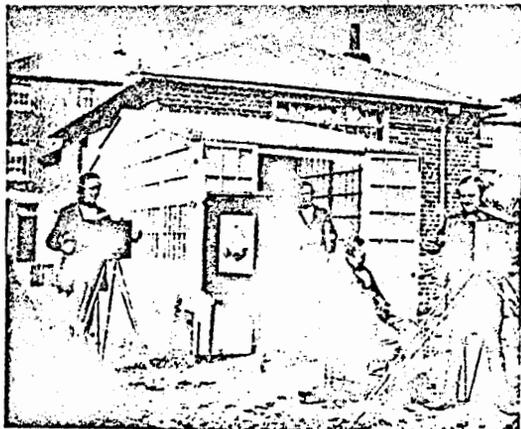
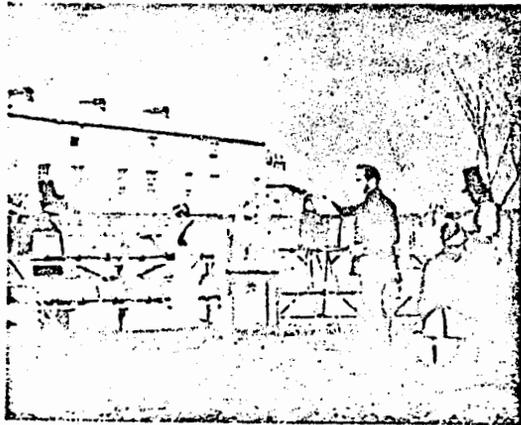




Fig. 2. Carte-de-visite portrait of Nicholas Henneman who worked for Thrupp in Birmingham when this photograph was taken (c. 1860).

“... There is now a gentleman in this town (Mr. N. Henneman, Russell Terrace), who has for sometime been engaged with Mr. F. Talbot (the inventor) in carrying out experiments, and effecting improvements in this beautiful art. The lovers of science would be highly gratified at witnessing the interesting process, as it is skilfully conducted by this gentleman, and we have heard with pleasure that it is not improbable that a lecture will be given upon this subject, at the New Rooms, by him. It is a subject quite new in the circle of the arts, and one which possesses unusual interest.”

As we shall see later, the lecture was not given until March 1845.

Why did Talbot select Reading as the site for his talbotype printing establishment? The reasons are not explicit, but several explanations are plausible. Because the contract he was negotiating with Claudet gave the latter exclusive rights to practise in the London area, Talbot could not locate his printing studio in the most natural place, London. Thus he turned to the provinces. The town of Reading possessed several advantages. The air was clearer than in London. The rents were probably cheaper. The location was quite convenient, for Reading was located on the newly-constructed Great Western Railway about half-way between London and Lacock Abbey, his country estate near Chippenham in Wiltshire. Henneman made frequent use of the railway in travelling to Chippenham and to London.

At the beginning of 1844 there does not appear to have been a professional daguerreotypist in Berkshire; but competition was not long in appearing. The editor of the *Reading Mercury* wrote in the issue of 4 May 1844:

“Mr. Beard, the patentee of the daguerreotype process, announces his wish to dispose of the agency for this

county of this recent discovery in the arts. Of the faithfulness of portraiture by this means there can be no question, and we understand that the objections originally made to the peculiar hue of these pictures is now quite obviated. The speculation may prove profitable if the party is skilful in philosophical experiment. We lately alluded to the Calotype process, which is very effectively managed by Mr. Henneman at present a resident in this town. We hear that he is now publishing a work which will be illustrated by Calotype pictures, produced by the rays of light. The late brilliant sky and clear atmosphere have been most favourable for these processes.”

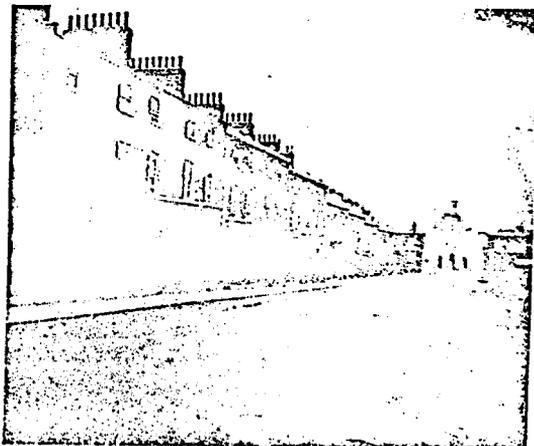
The first daguerreotypist in Reading appears to have been a Mr. Keats (or Keates). We hear of him in the following letter which Henneman wrote to Talbot on 26 January 1845:

“I have at last consented to give a Lecture to the members of the Reading Scientific Institution on Photography in consequence of a gentleman expressing his intention of doing so, who I am sure knew nothing of the subject but what he had gleaned from newspapers. If you will oblige me with a copy of ‘Some account of the art of Photogenic Drawing’ and any other papers, also the *Literary Gazette* containing the first notice of your invention they will be of great assistance to me, as I intend Reading the Lecture. I think I had better make some few extracts from them. If it meets your approbation I think I shall have an opportunity of getting it noticed in the *Times*. Do you not think I had better do so? The Secretary of the Institution, who is an intelligent Scientific man, has kindly offered me his assistance on the occasion. I have also asked some information of Mr. Keates on the Daguerreotype to which I shall be obliged to allude, any further information you can favor me with will be very thankfully received. The Lecture will not take place till March, still I shall be greatly obliged by your granting my request as early as convenient.”

THE WORK OF THE ESTABLISHMENT

The principal purpose of the new printing establishment at Reading was the production of talbotypes for book illustration. The immediate project, as the editor of the *Reading Mercury* revealed, was the printing of talbotypes for Fox Talbot’s book entitled

Fig. 3. Talbotype: Russell Street, Reading, a street adjoining Russell Terrace



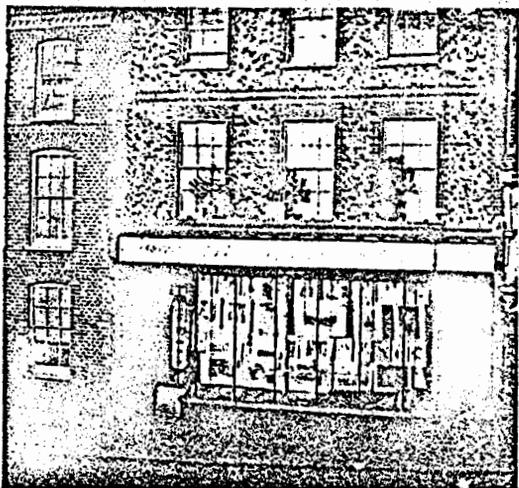
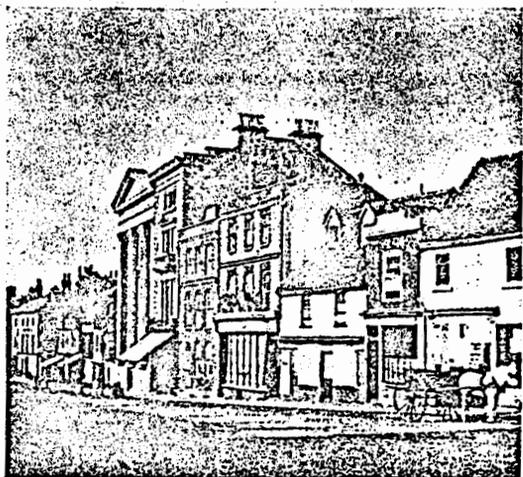


Fig. 4. Talbotype: Lovejoy's Library, London Street, Reading

Fig. 5. Talbotype: London Street, Reading



Pencil of Nature. Later Henneman produced the talbotypes used to illustrate several other books published in London between 1844 and 1847. In due time, single copies of these talbotypes . . . and many other talbotypes as well . . . were eventually produced at the establishment and sold to the general public through agents.

At first Henneman worked alone and acted quite secretly. His strange purchases in Reading's shops aroused considerable curiosity and suspicion among his neighbours. He was somewhat dependent upon several local shopkeepers for large amounts of chemicals and paper. In due time, it seems, he came to rely upon George Lovejoy's stationery shop and library (Fig. 4), located in London Street, for most of

his paper. It was through his contacts with Lovejoy that Henneman met and eventually employed to assist him in his printing establishment John Henderson and Alfred Harrison, both apprentices at the shop. Similarly, at the shop where he purchased his chemicals Henneman met Thomas Augustine Malone (another apprentice), who was recruited to work at Russell Terrace from the summer of 1844.

Our knowledge of Henneman and his several assistants is fragmentary indeed. What was Henneman's relationship to Fox Talbot? Was he simply a servant? Was he a junior partner? Or was he a licensee? It is clear that Henneman possessed certain managerial powers at Reading. He kept his own books. The assistants at Reading were recruited on his recommendations.

Henneman's several assistants worked on a part-time rather than a full-time basis in the printing establishment. Henderson generally worked in the evenings or on weekends in a more or less secretarial capacity. Harrison appears to have been connected with the actual printing process. In the course of his employment Harrison accumulated about 50 talbotypes and eventually mounted them in an album which bears his name. He evidently grasped their historical significance and retained them throughout his life.

In a letter from Henneman to Talbot dated 10 July 1846 we also hear of Harrison's brother:

"I believe you are desirous of engaging a young man to assist you, now [Alfred] Harrison has got a brother I think would be the very man for you, he is at present in London foreman in a carpenters business, but does not seem to like it very much, on account of the sameness, he has a great taste for philosophy, at least according to his brothers account, who told me a great many of his doings he seems to be very clever in mechanics, he told me when a boy at school he used to take a watch to pieces and put it right again. I cannot write you all I heard about him, only one thing among many is that he has been trying this last two years to discover the peritall motion (whether that proves him to merit to be thought of better in your opinion, or quit the reverse, I leave for you to consider) . . ."

HENDERSON'S REFLECTIONS ON THE ESTABLISHMENT

Most of our information about John Henderson comes from his own pen. In 1892, about 50 years after the events, John Henderson wrote a letter to his younger son Charles A. Henderson (then about twenty-five years of age) describing Henneman's printing studio in Reading. His reminiscences, clouded by the passing of time, nevertheless throw light on the lives of Henneman and his assistants. Several footnotes have been added by us to explain or query points in the letter.

Rostherne
Tilchurst
Reading

My dear Charley,

If your young friends the Dutchmen are amateur Photographers they may be interested in knowing that the first man who produced perfect pictures was a countryman

of theirs, and a very intimate friend of mine. I cannot distinctly remember the exact year of Mr. Henneman's arrival in Reading, but it was about 1842-43, about 50 years ago; our Town was then a very small one, everybody knew everybody else, and their business, and for some time the movements of this lively Foreigner were watched with some degree of suspicion, the chief reason being that he was known to be purchasing every possible variety of paper at the different stationers, and rather unusual quantities of chemicals at different shops. Added to this he lived alone in a rather large house for a bachelor, and worked all day in a sort of conservatory or small glass house at the back of his residence, which he never left unlocked, so the old Housekeeper thought him a most mysterious person, his hands being stained all shades from brown to black. He seldom appeared in public unless well gloved, and this habit he retained until late in life (see the Portrait). After I had known him some months we got very friendly and on early Summer mornings we used to go rowing up the River. I then discovered he had a keen eye for beautiful scenery, and on one occasion he casually observed "I shall get you to help me some day to take some of these views". Of course I said I could not draw, but he remarked he could take views without pencil or brush, and then disclosed to me the nature of his occupation and asked me to visit him the following Sunday, knowing that my then working hours were 14 per day and Sunday the only time I had a little leisure. Of course I went and was rather astonished at the sight his Studio presented. His cat and dog, himself, a large variety of Busts, Statuettes, and various articles in every variety of position appeared in various shades of brown on hundreds of sheets of paper; he had then done nothing away from home. In a few months we had become close friends. I was useful to him in carrying on a rather large correspondence with various people. This I mostly did late in the evening after business was over, but when he became a good customer to Lovejoy and the old man found out all about him, he occasionally allowed me to go down to write for him a whole evening, in this way it devolved upon me to copy out the whole history of Mr. Talbot's discovery and the process of Photography for old Lord Brougham, and some other great men of that day.

I am not quite sure whether my manuscript was used for the production of the first book ever published on the art called the "Pencil of Nature"⁴ issued in 1844 which you may remember to have seen in the Manchester Jubilee exhibition; this was published I think by Longmans, with specimens of Sun Pictures by Claudet⁵ & Miall⁶ (*sic*), with whom Henneman was then in partnership, he being the operator, but for years they had the credit of being the Photographer.

Probably a copy of this book might be in a Glasgow Reference Library; if your friends should have a look at it; they will there see that in 1833 when Mr. Talbot was visiting the Lake of Como he got his first ideas of producing Pictures by the action of the Sun, acting on sensitive paper. In 1839 after many experiments he had distinctly recognised the possibility of doing so, and produced what he then called Calotype pictures⁷. From that date until the time I speak of, with Henneman's help, he was continuously improving the process, but had he lived until now, with what amusement would the old man have looked upon the perfection of modern pictures.

In 1844 I think early in the year, Henneman left Reading for London, having made arrangements with Claudet and Miall (*sic*) to make the thing public. He was most anxious to take me with him as his assistant, but no one ever dreamed it was going to prove a very great success, and for other reasons it was not possible I could join him, and now perhaps all is for the best, as my path has been quite in another direction, and led to a different goal.



Fig. 6. Talbotype: New Rooms, London Street, Reading, where Henneman gave his lecture



Fig. 7. Talbotype: Coley Avenue, Reading

I think you would remember the genial and laughing Dutchman who came to see me once when you were a little boy in Prospect Terrace. I met 2 of his sons a few years afterwards in Jersey, but have never seen or heard of the old fellow since.

Your friends may like to copy the 2 Photos I send, but please do take care of them, and bring back when you come

at Xmas, as I value both of them and could not replace them.

Your affectionate Father,
John Henderson

P.S. I have only one Photograph taken by Henneman in 1842. 3, but in conversation with Alfred Harrison of Theale I find he has quite a collection. You may remember his father was my fellow apprentice and used to visit the Studio frequently and wisely kept his early specimens instead of giving them away.

It is interesting to note that Henderson was aware of Harrison's collection and that he recognized its historical value. It is something of a mystery as to how Henderson came into the possession of Harrison's talbotypes. Perhaps he purchased them from Harrison's son Alfred. Perhaps he received them as a gift from Harrison's survivors. Whatever the case, they were acquired by John Henderson sometime between December 1892 and May 1898.

In a letter addressed to Sir Benjamin Stone bearing the latter date Henderson alluded to the "several specimens" of talbotypes that he then possessed. What sparked off Henderson's letter to Stone, who was then investigating the origins of photography, was a newspaper story crediting Daguerre with the discovery of photography. To set the record straight and, in particular, to give Talbot and Henneman their due, John Henderson rebutted the newspaper account and then committed to paper his own version of Talbot's discovery and Henneman's printing establishment:

Rostherne,
Tilehurst,
Reading.
May 2/98.

The writer of the Articles (in the *Standard* of April 28th 1898) to which I allude in my note, gives the chief credit to Daguerre for the discovery of Photography, which he made public in 1839; this is not quite correct, the process was totally different. I have several specimens of an early date but most of those which have long been exposed to the light, have almost disappeared from the Plate.

Mr. W. H. Fox Talbot, of Laycock Abbey, Wiltshire, who was born in Feb. 1800, was the actual discoverer of *Photography* as it is now known. From his own Manuscript I copied out about the year 1840⁷, the full particulars of the process for his friend the great Lord Brougham, who at that time was a frequent visitor to Reading, where his sister was then living. At that time I was serving my apprenticeship to Mr. Lovejoy, the well known Stationer & Librarian in my native town; his shop was for nearly 50 years the resort of all the Literary & Scientific people who came to the Town, much more so even than Robt. Wrightson's in New St., or Langbridge's Bull St. in Birmingham. Mary Russell Mitford, the Authoress, was at the height of her popularity, and many brilliant conversations have I listened to between her and such well known people as Brougham, Talfourd (a native of Reading whose tragic death on the Bench you will remember) Chas. Dickens, Mrs. Trollope, the Howitts, and many others; hence it came about that everything new or interesting was generally known there so soon as it became public, and as my memory is fairly good, I can recall after a lapse of nearly 60 years a great deal of what passed within my ken.

When on a visit to the Lake of Como in Dec. 1833⁸, Mr. Fox Talbot made his first discovery of producing "Sun Pictures" through observing certain effects caused by

passing clouds upon the shores of the Lake; upon returning home he carried out a series of experiments which convinced him it would be possible to produce such pictures upon chemically prepared paper, in this, after much trouble, he was successful, & by the year 1839 he had obtained a distinct recognition of what he termed the Calotype process⁹.

Daguerre having simultaneously made known his discoveries, induced Mr Talbot to make efforts for further research, and in 1840 or 41 he engaged a Dutchman, Mr Nicholas Henneman, who took up his residence in Reading¹⁰ as being a convenient place of call between Chippenham & London on the newly opened Gt. Western Railway, to make further experiments, and so far as possible perfect the process.

Henneman was nothing like the typical Dutchman, but a lively, volatile fellow who had lived much in Paris, & become more of a Frenchman; at all time knowing several Foreign languages, he was rather deficient in English, and as I soon became known to him, he was glad of my help, in assisting him with his growing correspondence, hence my being employed to copy Mr Talbot's MSS.

A rather amusing incident occurred soon after his settling down here; Reading was a comparatively small Town at that time, and any new resident was sure to cause some attention, especially if a Foreigner; his constant visits to our shop, where he purchased every kind of writing paper we could supply, and then going direct to a well known Chemist for various chemicals not in general use, soon aroused suspicion as to his vocation; he lived alone with an old housekeeper in a tolerably good house which had been a School, where there was a large room without windows, but a skylight in the play ground; this he used for his experiments, and always kept securely locked; prying neighbours and others who had made enquiries about him soon came to the conclusion that he was engaged in forging Foreign Bank Notes or some such nofarious pursuit. My fellow apprentice, Harrison, & myself were often questioned as to what we knew about him, but for a long time he kept his own counsel and we were all in the dark. Of course there was no special make of paper suitable for the purpose in those days and he was trying all kinds of chemicals upon such as we could procure for him; at last Fourdriners introduced the now well known Cream woven papers, which I believe were then as now largely made by Hollingsworths at Maidstone; these seemed to answer well, & to our great delight my friend Harrison, myself, and the Chemists assistant, Tom Malone, were invited to spend an evening with him, when he showed us all the nature of his occupation and explained what he was engaged in endeavouring to accomplish.

After this there was no further mystery about it, we were all pretty frequent visitors to his Studio, used to constantly sit for our portraits, and help him in preparing his papers, arranging the Camera, a rather ponderous affair, and doing all we could to assist in the work. It was during this period (1841-3)¹¹ that all the specimens I have mentioned as being still in existence were produced, therefore there cannot be any dispute as to their genuineness, though everyone except the widow of my friend Harrison, whose portrait is one of them, and myself, have long since passed away. When they were shown to me early in last year after not seeing them for a period of nearly 60 years, I could not but feel affected by the sight of them.

It was about this time Mr Fox Talbot made it known that it was not his intention to take any steps to secure to himself any advantages he might derive from his discovery, and one day meeting our County Member, Mr John Walter the chief proprietor of the "Times" (Grandfather of the present gentleman who owns Bearwood) who was a constant visitor at Lovejoys, he explained the whole thing

to him, and within a short period an article appeared in the columns of the "Times" making the process known, and a free gift to the whole world.

Henneman & I were sent over to Bearwood to take copies of a beautiful Marble bust of Miss Catherine Walter, whose recent death¹³ had caused great grief to all who knew the Family. I much regret I did not retain copies of this beautiful work of art, though I have been half inclined to ask the present owner to permit me to obtain some now, as it was really the chief cause of the appearance of the "Times" article. Mr Walter is not an M.P. or you might ask him with a better chance of success than I could.

In 1844 Mr Fox Talbot gave various specimens of Landscapes, Portraits &c which were published in a work entitled "The Pencil of Nature", thus to a greater extent making it a free gift to the public; this book has long been out of print, though in the Photograph department of the Manchester Jubilee Exhibition, I saw a copy of it, and again recognised some of the particulars I had furnished for the Publishers from Mr Talbot's MSS.

These few notes may interest anyone taking pleasure in the pursuit of the now well known Art, as showing the extraordinary strides it has made within the memory of one still living.

In 1845 my apprenticeship terminated, Mr Henneman offered to engage me as his assistant, but my own business appeared a more substantial one to follow, and hearing of a favourable chance to follow it in Birmingham, I sought my future fortunes there, and from that time ceased all connection with Photography as far as I am concerned.

Henneman shortly after moved to London¹³, taking with him young Malone, eventually joining with Myall (*sic*) of Regent St. who brought Portrait taking to considerable perfection, but my Dutch friend was rather of an erratic disposition, and never derived the benefit he ought to have done from the knowledge he possessed.

Years afterwards he was the operator for Sarony at Scarborough, and in later years for Thrupp of New St, Birmingham, and although a resident myself in your Town, (or at Aston) down to 1860, I never met him until I returned to Reading when he came to visit me about 1870.

I much regret I did not make a study of Photography to some extent; for 45 years my business engagements necessitated my visiting almost every Town in the United Kingdom, it has brought me into contact with people in all stations of life, of almost every Castle or Historical building, and every Cathedral in our dear old land, and though far below you as a Traveller, if I had possessed your talent and perseverance, I might have made a fairly good collection of Photographs.

Apologising for the length of my letter;

I remain

Yours faithfully;

JOHN HENDERSON

Within two years John Henderson died at Tilehurst, near Reading.

Henderson was survived by his widow Amelia Carolina Henderson; two sons, John and Charles; and two daughters, Laura and Florence. His residence in Tilehurst called "Rostherne" devolved upon his widow, who lived until 1905.

It was Charles A. Henderson who eventually inherited his father's collection of talbotypes and the afore-quoted letters. Charles was engaged in the stationery business throughout his life. He appears to have been a travelling representative for a large paper company. "In 1921, while representing his firm

Subscribers
to the *Saltzman Sun Pictures in Scotland*
1845
His Majesty the Queen
His Grace the Duke of Devonshire
Lord Dudley Stuart - - - 2 copies
Earl of Cardigan
Lord Seymour
Sir William Galtney
Duchess of St Albans
Earl of Arundell
Sir Robert Throckmorton
Earl of Mount Edgumbe
Am - Mrs Damer

Fig. 8. The first page of a list of subscribers to Sun Pictures in Scotland

SUN PICTURES IN SCOTLAND.

Preparing for publication in 1 vol. royal 8vo.

TWENTY-THREE PHOTOGRAPHIC VIEWS

SCOTLAND,

H. FOX TALBOT, Esq.

Price to Subscribers, One Guinea.

Subscribers names will be received by J. Rodwell,
Bookseller, New Bond Street, London.

Most of the views represent scenes connected with
the life and writings of Sir Walter Scott. Among them
will be found—

ABBOTSFORD,	LOCH KATINE,
MELROSE ABBEY,	DAYTON ABBEY,
DOUME CASTLE,	HERIOT'S HOSPITAL,
SIR W. SCOTT'S MONUMENT, EDINBURGH.	

Fig. 9. Prepublication notice of Sun Pictures in Scotland

in the Far East, he met Miss Lulu Cozad, an American school-teacher from Montana who was on tour, and they were soon married in Shanghai. Not long after this marriage Henderson and his bride returned to England and lived in West Dene Beach. In 1923 Charles A. Henderson died at the age of 67. He was survived by his widow and a niece, Eileen Henderson, the daughter of his older brother John.

Shortly after her husband's death, widow Henderson returned to the United States and took up residence in Montana. At the time of her death in 1962 she was living in Missoula. Her late husband's personal effects, including the materials comprising the Harrison-Henderson collection, were sold to a local antique dealer from whom one of us (V.S.) recently purchased them.

TALBOTYPES PRODUCED AT READING

One of the books illustrated by talbotypes, Talbot's *Pencil of Nature*, is well known and was the most important of the works produced at the Reading establishment. It contains 24 talbotypes and was the first book to contain actual photographs. It appeared in six parts between June 1844 and April 1846. In the text Talbot gave a brief history of his invention of photography and suggested some of its uses.

At about the same time that talbotypes for the first part of *Pencil of Nature* were being prepared, a talbotype appeared as the frontispiece of a privately printed booklet entitled *Record of the Death Bed of C.M.W.* The initials refer to Catherine M. Walter, daughter of John Walter, editor of *The Times*. It was written by John Walter, Junior, in January 1844. A copy of the booklet, kept by Henderson, was among the items recently discovered in Montana.

Henneman also produced talbotype illustrations for several other works. *Sun Pictures in Scotland* appeared in 1845. It contains 23 talbotypes and no text. From a list of subscribers (Fig. 8) in the Science Museum's Collection it would appear that 98 subscribers bought 118 copies of the work in response to a circular advertising it (Fig. 9).

In 1846 *The Talbotype applied to Hieroglyphics* was published. This contained three talbotypes (Fig. 10). The British Museum copy of this work was destroyed in the blitz, but the three talbotypes are among those preserved in the Science Museum's collection. The tablet described in the booklet is, or soon will be, beneath the waters of the Aswan High Dam, as a result of which these talbotypes have been the subject of renewed interest among Egyptologists.

In 1847 Henneman also produced the talbotypes for 25 copies of a volume of Sir William Stirling's *Annals of the Artists of Spain*. On completing the work he sent the following letter to Talbot:

Reading May 5/47

Sir,
I have finished the principal order for Mr Sterling. I intended to finish to-day but the weather turned out very

bad and altho I copied some they are not to my satisfaction being convinced I can do them a great deal better especially two oil-paintings Mr. Sterling wanted me to do to see how we could do oil painting, as he has a great many to do, please to let me kno if the glass house curtains are up, for if so, *in case* the weather should be bad tomorrow, I think I better bring them up to finish in London, if the weather proofs fine tomorrow I can finish the *whole* lot, except one wish is 4 feet 6 inch by 2 ft 2 inch and he wants it diminished to 3 inch by 1½. I should very much you to let me kno *how* to do it. I think the best way to get it *distinct* is to take a large one first *and then* a small one from that. The people are all highly delighted with their portraits and every body had seen them wanted theirs done. I suppose you could not let me kno by return of post wat you sel the exclusive Licence for Berkshire for likewise will you sel the copyright of Miss Mitfords Portrait and what prise do you want for it. I should feel much obliged if you could let me know these two questions by return of post.

Your obedient servant,
N. Henneman

It is quite surprising that Henneman should consider the copyright of the portrait of Mary Russell Mitford (Fig. 11) to be of value. The days when photographs of celebrities were sold in shops were, one would think, still in the future. Henneman did not buy the exclusive licence for Berkshire. By the autumn of 1847 he and Malone were running a talbotype studio at 122 Regent Street, London.

Separate talbotypes were also produced at the Reading establishment. Most of these were distributed to stationers' shops and then sold to the interested public. In London, Gambert, Junior and Co. of Berner's Street, acted as the principal distributing agency? In Oxford, specimens were on sale at Mr. Vincent's shop, and at Messrs. Wyatt and Sons in the High Street. For these last-named stationers Henneman provided talbotypes of most of the Oxford Colleges.

The principal outlet in Reading—about which more evidence is available—was Lovejoy's bookshop. George Lovejoy (Fig. 13), the proprietor of this well-known bookshop and library, was an amiable and energetic entrepreneur who hobnobbed with such literary figures as Mary Russell Mitford and Charles Kingsley. His shop at 117 London Street contained one of the largest private subscription libraries outside London and attracted people from far and wide.

In one of Lovejoy's (undated) sales catalogues he advertised several talbotypes view of Reading and a portrait of Mr. Claudet which were for sale. The price was five shillings each. Lovejoy's talbotypes, mounted on gilded cards, were described as "gilt framed".

Henneman gained some free publicity for the sale of talbotypes from a scientific exhibition held in Reading. In December 1845, the Reading Mechanics Institution sponsored a Polytechnic Exhibition and Bazaar which it held in its New Rooms, located a few doors away from Lovejoy's Bookshop. The exhibition featured among many scientific displays

The Talbotype, applied to Hieroglyphics—
Printed at Reading—discovered by Dec^r. 1845, by Mr. H. G. Harris, forwarded to
 the undersigned, and communicated by Mr. Saml. Beichs to the R. Soc. of Literature,
 with Translation by—Vide Lit. Gaz, 25th July 1846—photographed by Mr. H.
 Fox Talbot's kindness, from Mr. Jos. Bonomi's design—London, Aug^r. 46.
 George K. Cliddon

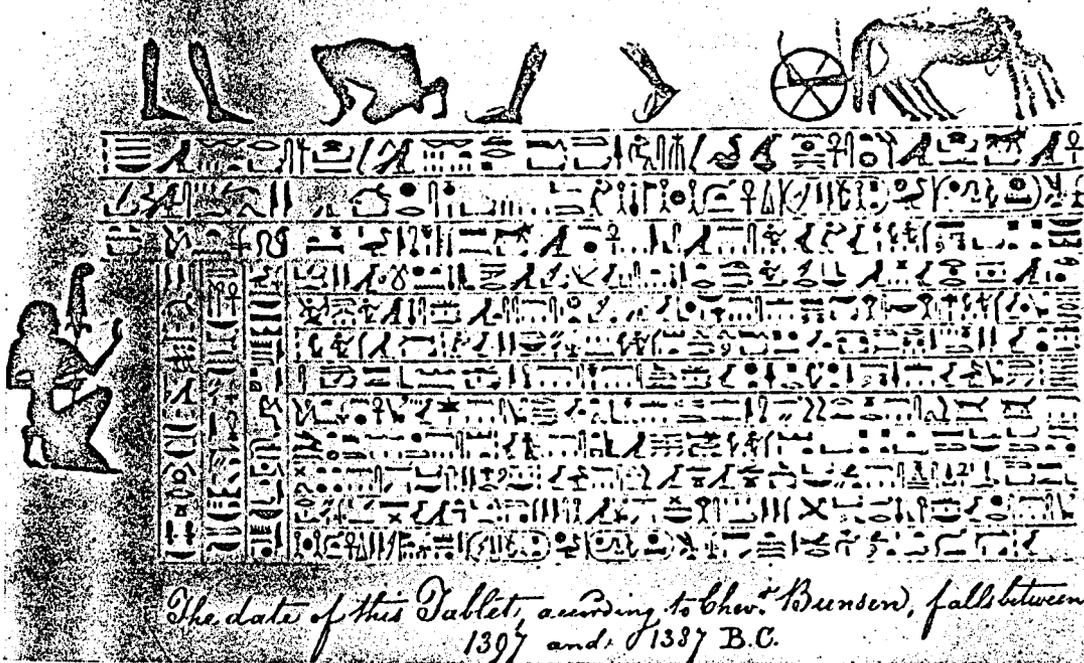


Fig. 10. Talbotype: The first illustration from *The Talbotype applied to Hieroglyphics*

talbotypes printed by Henneman at the Reading studio and daguerreotypes produced by Claudet. William Henry Fox Talbot himself entered a separate exhibit under his own name. No doubt this served to publicise the new art of photography in the areas outside of London.

PROCESSING TALBOTYPE PRINTS AT READING

The type of paper used to make talbotype negatives and positives was considered extremely important at the Reading establishment. Both Henneman and Malone visited Hollingsworth's Turkey Mill at Maidstone, Kent, to obtain some insight into paper-making. Indeed Malone, when editor of the *Liverpool and Manchester Photographic Journal*¹³, wrote on the subject of paper-making at some length. On his first

visit to the mill he had the opportunity of superintending the manufacture of 10 or 12 reams of paper.

The best paper for talbotypes was writing-paper having a smooth surface, a close and uniform texture and good wet strength. Hollingsworth Turkey Mill paper was considered to be the most suitable and was said by Malone to have been used for printing the *Pencil of Nature*. One hundred and eighty prints from *Pencil of Nature* and *Sun Pictures in Scotland* are in the Science Museum, and 31 have a legible watermark. Of these, 25 have the watermark "J Whatman Turkey Mill" followed by the year of manufacture (in most cases 1840). The other six came from other mills such as R. Turner's Chafford Mill.

Sizing of the paper by the manufacturer to produce a smooth, strong paper was, from the point of view

of the talbotypist, the important step in the preparation of the paper. Turkey Mill paper, and indeed all English papers, were sized with gelatin. Gelatin has such a useful combination of properties that it has been called the Almighty's gift to the photographer. But at Reading the gelatin appears to have withheld its beneficence, for camera exposures were of the order of a half minute at $f/8$ in bright sunshine—more than 100 times greater than the gelatin dry plates which were to appear about thirty years later. During the 1850s the gelatin of English papers was believed to reduce their speed. The French papers did not contain gelatin. Presumably during the sizing, the gelatin became mixed with so much desensitizing material that it had no effect on the speed of the sensitized paper. Turkey Mill paper was considered good not because of its speed but because of its texture and because it could be used with strong solutions of developer. A full 24-hours could elapse between exposure and development.

For practical details on the making of positive talbotype prints we are indebted to Malone, who published a short article on the subject¹⁸. The paper was first soaked in common salt solution for about two minutes, the strength of the solution depending on the type of paper used. The paper was then wiped on both sides with a cloth and spread out on clean paper in a warm room to dry. The sensitizing solution was at first made by adding ammonia solution to silver nitrate solution until the precipitate of silver oxide was re-dissolved. This was found to give "smoky" and cold, slate-coloured prints. To produce warmer tones Talbot advised adding dilute nitric acid. If too much acid was added a gaudy orange-red print resulted and the acid had to be neutralized. The tint aimed at was a "good rich velvety mulberry tint".

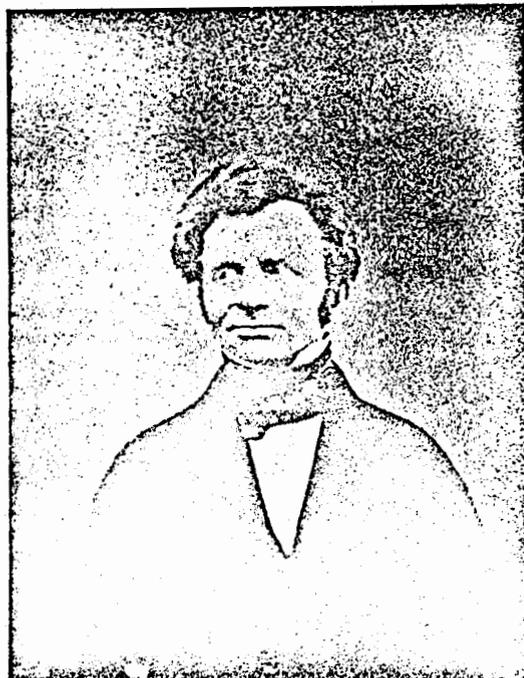
The sensitizing solution was applied with a brush and the paper left to dry spontaneously, a little heat being applied to drive off the last traces of moisture. The paper was generally used the same day but could be kept a little time in a press or copying frame. The prints were made out of doors, as can be seen in the photographs of the rear of the establishment (Fig. 1). The printing of positives was a print-out process without development. The prints were fixed by immersion for ten minutes in a hypo solution as hot as the hand could bear. Three or four changes of water were used to wash the prints, the absence of a sweet taste in the washing water being taken to mean that the prints were completely fixed.

After fixing, the prints were partially dried with blotting paper and then placed on shelves in a warm room to dry completely. After the talbotype of the marble bust of Catherine Walter had been pasted into the booklet it was dried with a hot iron. It was found that this produced a new and pleasing tint and as a result from then on it was common to iron prints or to dry them in front of a fire.



Fig. 11. Talbotype: Portrait of Mary Russell Mitford

Fig. 13. Talbotype: Portrait of George Lovejoy



1846

BY ROYAL LETTERS PATENT.

IODISED PAPER,
FOR MAKING
SUN PICTURES.

PREPARED BY
N. HENNEMAN, RUSSELL TERRACE, READING.

Five Sheets, 3s. 1 or, to Licenses, 2s. 6d.

NOTICE TO PURCHASERS.

This Paper is prepared for the convenience of *Amateurs*, who engage to use the same *both sides* for purposes of amusement only.

Persons wishing to make a commercial or professional use of the Art can take out a License from the Patentee.

All applications for Licenses to be addressed to Mr. HENNEMAN, Reading.

Received of H. J. Talbot Esq. 26s. 1846

for five sheets of iodised paper
Laycock & Co. 11/10
N. Henneman

Fig. 12. Label for iodised paper. Amateurs could use the process without taking out a licence even at this date (1846)

AN UNPROFITABLE VENTURE

Talbot claimed to have spent £7,000 on his photographic experiments and on bringing his invention before the public. While a precise estimate of the profitability of the Reading establishment is impossible to arrive at, there can be little doubt that financially it was a failure and a substantial portion of the £7,000 may have been spent on the venture. A major expense at the establishment was salaries. Henneman received £150 a year, paid quarterly (Fig. 14). In 1847 T. A. Malone was paid £2 10s. 0d. a week, Alfred Harrison £1 18s. 5d. a week and his brother £1 10s. 0d. a week.

In the Science Museum's Collection is what appears

to be an account of the running expenses of the establishment from January 1846 to May 1846. If we interpret this correctly, it seems that Talbot, instead of paying for paper and materials, paid Henneman an agreed sum for each print produced. Thus during the first five months of 1846 Talbot received 2,800 prints from Reading, paying in return 1d. to 4d. for each print depending on size. For a large mounted print the price rose to a little over 7d. One interesting item on the list is; "25th February. Pictures of H.R.H. The Prince of Wales copied for Her Majesty . . . £5". Another: "Expenses for teaching Lord Brougham's servant . . . £3". The total bill for prints, travelling expenses of Henneman and incidentals

Fig. 14. Receipt for salary signed by Henneman

Reading September 7th 1846

Received of H. J. Talbot Esq. The Sum of

Thirty seven pounds ten Shillings

for one quarter's salary due in August

L 37: 10..

N. Henneman

No. to the *Pencil of Nature* April 1844

		Total
6. brown	188	42
7. leaf	112	38
8. book on shelves	123	27
9. black letter	143	7
10. large book	183	47
11. heads	136	14
12. study of nature	100	50

		Total
1. 1st part	50	200
2. 2nd part	50	200
3. 3rd part	50	200
4. 4th part	50	200
5. 5th part	50	200
6. 6th part	50	200

Fig. 15. List of *Pencil of Nature* talbotypes sent to the bookbinder, Tarrant, from which the number of copies of the work produced is derived

comes to £86. Other expenses, such as the upkeep of the house, rent and rates, advertising etc., cannot be estimated.

Most of the income of the establishment must have accrued from talbotype illustrated books, the first of which was *Pencil of Nature*. This was published in six parts. Two hundred copies of the first part were produced by the publishing date in June 1844, and a further 85 copies were produced by the end of the year. Many copies of the first part were given away to friends. One hundred and fifty copies of the second part were produced by its publishing date in January 1845 (Fig. 15). The six parts sold at a total price of three guineas.

Sun Pictures in Scotland sold at a guinea a copy and, assuming the list of subscribers is complete, only 118 copies were sold. Of the other talbotype illustrated books produced, *Annals of the Artists of Spain* is the only one likely to have produced any

substantial profit; but the amount received for the 1,700 talbotypes in the 25 copies of the illustrated volume of that work is not known.

Receipts from the sale of single talbotypes through agents appear to have been very small indeed. Messrs. Gambert and Company, London, sold 286 talbotypes between 29 May 1846 and 8 February 1847 for a total sum of £27 10s. Od.; half of this sum was their commission. Over approximately the same period Mr. James Gardner of London, Talbot's other agent, appears to have been more successful, selling about 500 talbotypes and returning £40 to Talbot.

The sale of iodized paper, and the sale of licences and apparatus probably formed a negligible part of the business of the establishment. One other source of income was portraiture. We have seen that a daguerreotypist, Keats, started up at about the same time as Henneman and he was still in business 20 years later. The business of a daguerreotypist consisted almost entirely of taking portraits. Yet there is no evidence that this formed much of the business of the Talbot establishment. A comparatively small number of portraits are known to have been taken there.

CONCLUSION

The failure of the Reading establishment to make money at a time when existing daguerreotype portrait studios in London were thriving and new ones were opening, meant that a new approach was needed to bring the talbotype before the public. In 1847 Talbot was free to set up a studio in London (Claudet's contract was by that time void) and so the Reading establishment was closed and premises at 122 Regent Street, London, were acquired and redecorated. Henneman, Malone and the Harrison brothers moved to London. Henderson preferred to remain in Reading.

The printing establishment at Reading, the prototype of all later developing and printing establishments, had not realized Talbot's ambitions. He had intended that his agents would travel to distant lands, bringing back paper negatives, the prints from which would be sold in large numbers in books and, singly, in stationers' shops. But, as with many other brilliant inventors, Talbot lacked the business flair to exploit his inventions, a shortcoming which none of his associates was able to obviate.

Talbot's idea of the place of photography was not exclusively in the portrait studio. Indeed he considered portraiture as one of its minor uses. *Pencil of Nature* shows that he had a very much broader view of its future. It is ironic that his patents are blamed for the lack of development of amateur photography. In fact, apart from the talbotypes produced at Reading one seldom sees photographs taken before 1852 in England which are not portraits from professional studios.

ACKNOWLEDGMENTS

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References

- (1) Also called the calotype process. The photographs were called talbotypes, calotypes or sun pictures.
 - (2) See D. B. Thomas, *The First Negatives*, Science Museum Monograph, H.M.S.O., 1964.
 - (3) The extracts from Henneman's letters are given with their original spelling.
 - (4) *Pencil of Nature* was the first book illustrated with photographs and was not the first book on photography.
 - (5) Claudet did not begin taking talbotypes until after the first part of *Pencil of Nature* was published.
 - (6) It is very unlikely that Mayall took any of the talbotypes for *Pencil of Nature*.
 - (7) This would have been 1844.
 - (8) This should be October 1833.
 - (9) The calotype or talbotype process was invented in 1840. Previously the process Talbot used was called photogenic drawing.
 - (10) In 1843-4.
 - (11) 1844-47.
 - (12) She died in January 1844.
 - (13) Henneman moved to London in 1847.
 - (14) Malone was editor of *The Liverpool and Manchester Photographic Journal* from June 1857 to February 1858.
 - (15) *The Liverpool and Manchester Photographic Journal*, Vol. 1, p. 270, 1857.
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