JOHN THOMAS QUEKETT

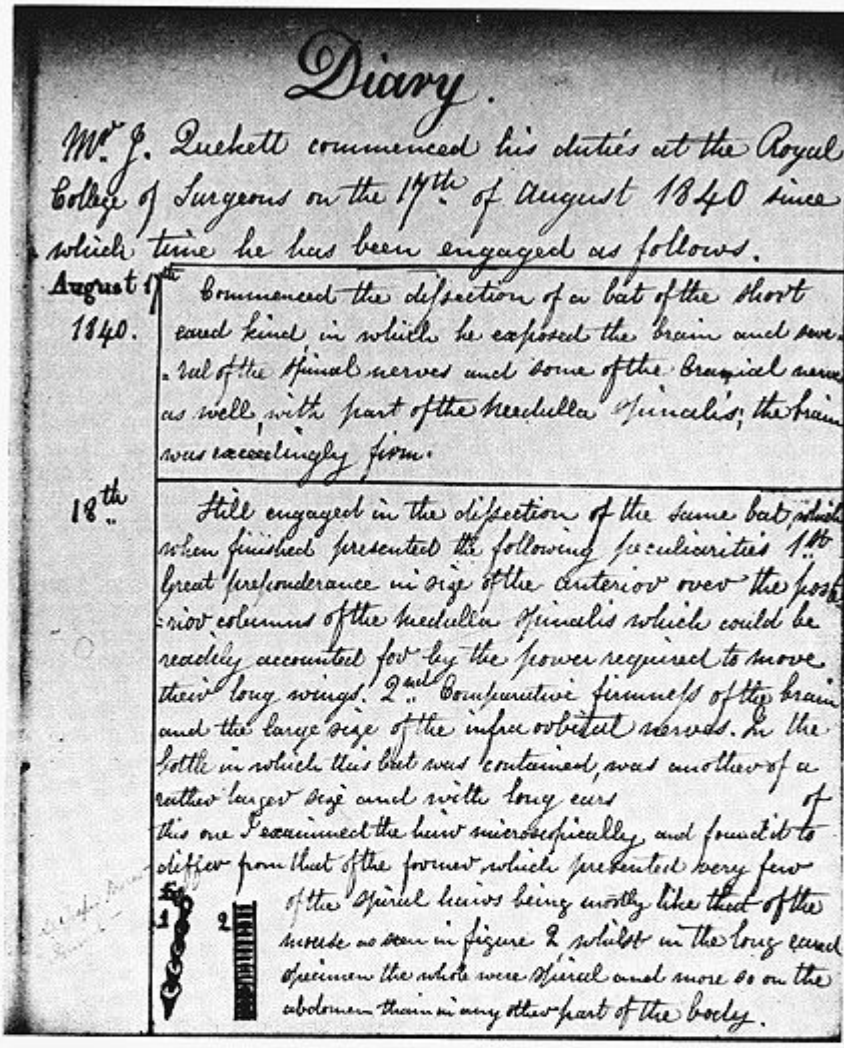
JOHN THOMAS QUEKETT was born at Langport in Somerset on 11 August 1815. He was the youngest son of William Quekett and Mary, daughter of John Bartlett. His father's family came originally from Scotland, settling in Lancashire some years after Culloden.

William's father had been killed at Bunkers Hill and he was brought up by his grandfather, who had acquired an estate at Bolton-by-Bowland, and was educated at Cockermouth Grammar School, where he remained until a young man. Coming to Somerset at the suggestion of a friend of his headmaster, with the intention of reading for Holy Orders, he learned of the vacancy for the mastership of the Endowed Grammar School at Langport and was successful in obtaining the appointment. Here he remained, a well-loved and respected figure, from 1790 until his death in 1842. In the words of his eldest son, the Reverend William Quekett, he educated 'the sons of all the gentry in the town and neighbourhood, and winning for himself universal respect . . .'

'My father was very careful about the education of his sons' wrote William many years later. 'He encouraged us from our earliest years to use our eyes and hands in the pursuit of knowledge, and instructed us in all manly exercises. We had boats and turning-lathes, a workshop, and a hot-house. We made our own tools, our fishing-rods and flies. In the river which ran at the bottom of our garden we became expert fishermen. Fishing was our father's favourite sport, learned in his boyhood among the lakes of Cumberland. We also became good shots, and we could all swim like fishes. Each of us was encouraged to take up some branch of natural history, and we made large collections of specimens in botany, entomology, ornithology, and zoology, having nearly all the British birds, insects, and plants. We were all educated at home; and it speaks highly for our father's care that we all did well'.

Here we have a picture of a family of well-educated young men with a lively interest in outdoor pursuits and in the plants, animals and insects they collected and observed for themselves. Small wonder all the brothers either took up scientific careers or retained some interest in science. The eldest, William, took Holy Orders. He reveals in his autobiography that he always carried his microscope when he travelled, and that he had a box of favourite slides which he used to entertain his hosts. He joined the Club in 1869. The second son, Edward, took up banking as a career. He was noted as an ornithologist and was a founder member of the Somerset Archaeological and Natural History Society. Edwin John qualified in medicine, and was also a botanist. He bought a practice in London and lived at 50 Wellclose Square off Cable Street, next door to his eldest brother at No. 51. In addition to his medical practice he also lectured in botany at the London Hospital. He was virtually the founder of the Microscopical Society of London, and it was in his house that the preliminary meetings were held.

John Thomas was the youngest of the brothers, and in common with the other members of the family, developed a liking for natural history pursuits. At an early age he evinced special interest in microscopy and not in the use of the microscope for purposes of investigation alone, but also in the



Diary.

Mr. J. Quekett commenced his duties at the Royal College of Surgeons on the 17th of August 1840 since which time he has been engaged as follows.

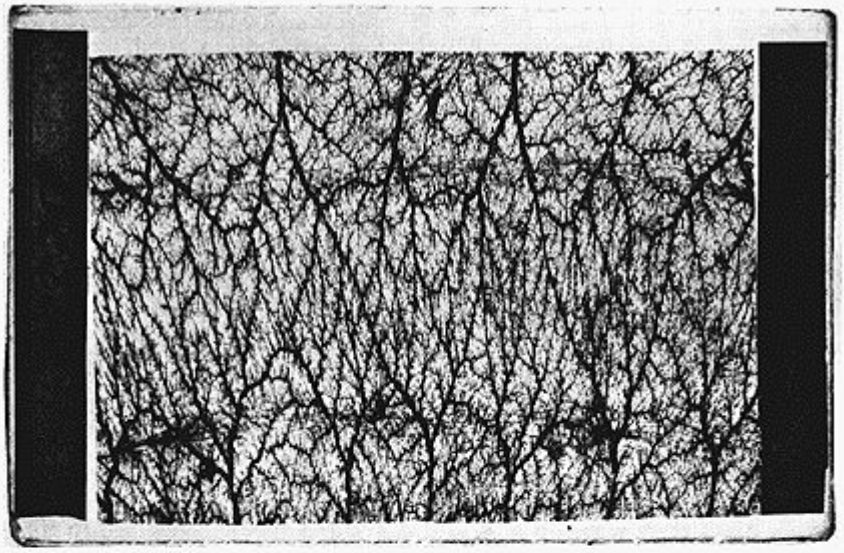
August 17th 1840. Commenced the dissection of a bat of the short eared kind in which he exposed the brain and several of the Spinal nerves and some of the Brachial nerves as well with part of the Medulla Spinalis; the brain was exceedingly firm.

18th " Still engaged in the dissection of the same bat, which when finished presented the following peculiarities 1st A great preponderance in size of the anterior over the posterior columns of the Medulla Spinalis which could be readily accounted for by the power required to move their long wings. 2nd Conspicuous fasciculi of the brain and the large size of the infra orbital nerves. In the bottle in which this bat was contained, was another of a rather larger size and with long ears of this one I examined the brain microscopically, and found it to differ from that of the former which presented very few of the Spinal tubes being exactly like that of the muscle as seen in figure 2 whilst in the long eared specimen the whole were Spinal and more so on the abdomen than in any other part of the body.

THE OPENING PAGE OF JOHN QUEKETT'S DIARY

construction of instruments and accessories, an ability which he developed and retained all his life. At the sale of his effects two lathes, a large number of tools, a quantity of metal stock and a number of unfinished items of work were auctioned, showing that he was actively engaged in making, or at least modifying and adapting instruments, as so many of us do today. It is recorded that when he was sixteen years of age he gave a course of lectures on microscopy to the pupils of his father's school, and that for this he contrived a microscope from odds and ends of metal acquired for the purpose from a local marine store dealer.

Like his brother Edwin, John decided to enter the medical profession. It was still the custom at this time for aspiring entrants to serve an



ONE OF QUEKETT'S PREPARATIONS OF INJECTED BLOOD VESSELS (Natural size)

apprenticeship with an established practitioner. After an initial training with a surgeon in Langport, he came to London as an apprentice to his brother and was entered as a student at the London Hospital Medical College, and at King's College, London.

In 1840 he qualified at Apothecaries Hall and also gained his Diploma from the Royal College of Surgeons of England.

In the same year in which he qualified he was also successful in the competition for the three-year Studentship of Human and Comparative Anatomy at the Royal College of Surgeons, thus marking the commencement of his life-long association with that body. The first Studentship had been awarded to William Crozier the year before; when Quekett joined him they worked together and in the Library of the College there is a manuscript produced under their joint authorship and entitled 'Notes of Dissections performed by William Crozier and John Quekett'.

At the conclusion of his Studentship in 1843, Quekett was appointed Assistant Conservator of the Hunterian Museum under Richard Owen. William Clift, the devoted assistant of John Hunter, had been appointed the first Conservator on Hunter's death and when he retired in 1839, Owen, his son-in-law, succeeded him. Owen remained in this post for 17 years before taking up an appointment at the Natural History Department of the British Museum. Quekett was then made Conservator and at the same time was also created Professor of Histology. He continued in these posts until his untimely death.

During the tenure of the Studentship, Quekett made a great number of microscopical preparations — some 2,500 slides altogether, including many injections, in the making of which he greatly excelled. In 1846 these were purchased by the College and many more were added as the years went by. By a stroke of good fortune, the collection survived the bombing and the

subsequent vicissitudes of the College collections in the last war. A high proportion of the slides are still intact; undoubtedly a good deal of the deterioration that has been suffered by the collection must inevitably be blamed on the fire and subsequent storage underground.

Even quite a number of the fluid mounts are in reasonable condition; in this connection it is interesting to recall that Goadby, inventor of the preservative fluids that bear his name, worked alongside Quekett at the College.

When he first took up his duties on 17 August 1840, Quekett commenced to keep a diary in which he recorded his day-to-day activities at the College. The volumes for 1840-42, 1844, 1845, 1847 and January to March 1848 are in the College Library. The volume 1842-43 is in our own collection.

The diaries convey a good insight into his working routine and contain references to men he knew and whose names will always be associated with the history of microscopy: numbered among them are such figures as Carpenter, West ('I see young West the artist' he writes on 16 June 1847), Smith (of Smith and Beck), Darker (of the selenite stage), Ross, Sowerby, Woodward (President of the Islington Scientific Society and author of an early work on polarized light), and 'young Topping' to whom he makes many references and who apparently did much work for him. This would be Amos, then in his early 'teens, son of Charles Morgan Topping. The Toppings, father and son, were prolific mounters and between them they spanned the century. They both joined the Club: C.M. in 1866 and Amos in 1871. He was very friendly also with Joseph Jackson Lister, father of Lord Lister and whose discovery of the two aplanatic foci of a combination had such a profound influence on the improvement of the achromatic microscope. Quekett dedicated his *Practical Treatise on the Use of the Microscope* to Lister.

When he joined the College he was also designated Demonstrator of Minute Anatomy, a post which carried the duty of delivering an annual course of lectures based on the collections. He was a popular lecturer. Two volumes of his *Lectures on Histology* were published, dealing with vegetable as well as animal tissues. They were based on articles he had written for the *Medical Register* and are remarkable for their scope and originality. He used them for his lectures at the College. He also prepared two volumes of the Descriptive and Illustrated Catalogue of the College collections. His *Practical Treatise on the Use of the Microscope* was published in 1848, with revised editions in 1852 and 1853; and translated into German, it was published at Weimar in 1850. Over twenty papers were published in his name, most of them in the *Transactions of the Microscopical Society of London.*

Specimens reached him from all parts of the world. He made a number of investigations outside his immediate duties, and was consulted on numerous matters. The Prince Consort came to him about having some alterations and improvements made to his large silver microscope, particularly in respect of the old, very inferior lenses with which it was fitted. The work was carried out by Ross. The Prince had instruction from Quekett on the use of the improved instrument and on mounting specimens. It was his opinion that Prince Albert was by no means a tyro in matters of microscopy. The foregoing incident is recorded in *My Sayings and Doings* by his brother the Reverend William, who was present when the microscope was brought by the Prince.

A very interesting series of investigations in which he was involved

concerned the presence of human hair and skin under the nails of church doors. He examined a number of such specimens and published a paper on them in 1849 in the *Transactions of the Microscopical Society of London*, **2**, 46. His brother was present when he made an examination of a leathery sample found under a metal plate on the door of the church at East Thurrock, Essex. In the book already mentioned, he records the details of the examination that John made on this occasion (pages 117-119) and his conclusion that it was, in fact, the skin of a light-haired man, thus confirming the local tradition of a Danish raider of churches, who was caught in the act and flayed alive and his skin bolted under a plate on the church door.

In 1855, whilst staying with his brother William, who was then just recently installed as Rector of Warrington, Professor Quekett gave a lecture on pearls to a large audience in the Warrington Music Hall. It was illustrated by numerous large drawings, and according to the reporter from the *Warrington Guardian*, it was delivered in an easy, colloquial style and listened to in 'breathless silence' by a large audience.

One last incident from William's book must suffice. He had organised an excursion for 450 of his parishioners from Warrington to London in June 1857. In three days they visited all the principal sights of the city, including the Tower and Crystal Palace. Several hundred visited the museum of the College of Surgeons and were shown round by Professor Quekett, who had earlier lectured to them at the Crystal Palace and accompanied them on their sight-seeing.

In 1857 he was elected to Fellowship of the Linnean Society, and in 1860 to the Royal Society. In the same year he relinquished his position as honorary secretary to the Microscopical Society, a post in which he had succeeded Arthur Farre two years after the founding of the Society. His health was failing and he requested that they should not proceed with their intention to create him President. His letter was delayed, however, and he later found that he had, in fact, been elected. He was prevented from attending any ordinary meetings; but at the termination of his year of office he delivered his Presidential Address. The Address is printed in the Transactions of the Society. This may well have been the occasion of his last public appearance: he was indeed a sick man and six months later he died on 20 August at Pangbourne in Berkshire. Of him, Farrants said, '. . . He was endowed with a rare combination of qualities, the exercise of which made him the accomplished microscopist he confessedly was. He was thoroughly familiar with the practical use of the instrument, dexterous and delicate in manipulation, singularly skilful in preparing objects for examination, diligent and patient in research, sagacious and cautious in interpreting the phenomena the microscope revealed — above all, he was honest and candid in recording his observations. His simple aim was truth; his labours were mainly directed to determining facts, leaving to others to draw the inferences they might justly warrant . . .'

When he died various schemes were put afoot to commemorate his name. The Microscopical Society purchased some books and instruments from his collection, including a splendid example of a Benjamin Martin microscope and the Manchester Literary and Philosophical Society, Microscopical Section, with funds they had raised, bought a microscope and had it engraved In Remembrance of the late Professor Quekett — April 1862. Of the suggestion to set up some form of permanent memorial nothing materialised and it remained for three men to associate his name with a newly-projected club four years later.