

Series editor: David Taylor

Antique ophthalmic instruments and books: the Royal College Museum

R Keeler

Part II Antiquarian book collection

The Royal College of Ophthalmologists is fortunate to have acquired a collection of 160 antiquarian ophthalmological books to add to the existing library. For students of history these books provide a fascinating insight into how ophthalmology and the diagnosis of eye disease evolved.

Before the invention of the ophthalmoscope in 1850 the structure of the eye beyond the pupil aperture was to all intents and purposes a closed book. The physician had to reason by inference rather than by direct observation and the profession attracted its share of quackery. However, it is humbling to read and see from fundus atlases how so much was achieved a century and a half ago using such primitive methods as a lighted candle and belladonna to observe the eye.

The oldest and most valuable book in the library (Fig 1) is one with the wonderful title of *Seabrooke's Caveat, or his warning piece to all his loving country men, to beware how they meddle with the Eyes, by Richard Seabrooke, practitioner in the Art of the oculist, 1620.*

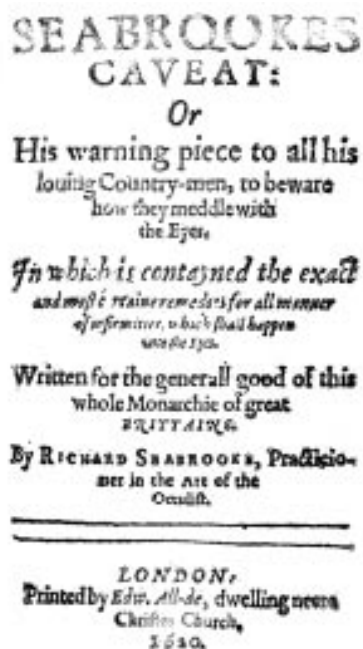


Figure 1 Title page from Richard Seabrooke's *Caveat*.

Another book of great interest is by Richard Banister whose portrait can be seen in the reception room of the college, holding an unidentified surgical instrument.

Banister's book of 1622 is in two parts, the first with the title *A treatise of one hundred and thirteen diseases of the eyes and eye liddes*. Much of the initial part is in verse and is plagiarised from William Guillemeau's 1585 earlier work of the same title. The second part is named *Banister's Breviary* which is his own work.

Banister was an English physician, describing himself on the title page of his treatise as a master in surgery, an oculist, and a practitioner in "physicke."

Garrison and Morton state that "he noted the hardness of the eyeball in glaucoma," thus being the first to recognise this as a cardinal sign of absolute glaucoma.

Many books in the library date well before the discovery of the ophthalmoscope but those ophthalmologists at the time and just after its introduction provide an insight into a division between advocates of this new tool and sceptics warning of the danger of damage to the retina by concentrating such strong light on it.



Figure 2 Portrait and title page from John Cunningham Saunders's *Treatise*.

A number of the books are on early surgery of the eye. It is quite apparent that in those days patients preferred to submit to the agony of the surgeon's knife without anaesthetic rather than face the continuing pain and suffering from their disease.

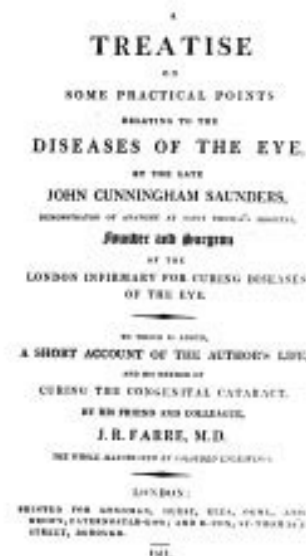
A first edition of Sir William Mackenzie's *A Practical Treatise on the Diseases of the Eye* (1830) is in the library. Mackenzie studied and practised in Glasgow after going to London, Paris, Vienna, and Italy. He was founder of the Glasgow Eye Infirmary. Mackenzie's book contains details of numerous cases that he treated and includes probably the first discussion about the increase of intraocular pressure as a characteristic of glaucoma. He introduced the term asthenopia and was the first to describe sympathetic ophthalmia as a distinct disease.

Later editions of his book were prefaced with an anatomical illustration and introductory explanation of a horizontal section of the human eyeball by Thomas Wharton Jones whose own book is also in the library.

John Cunningham Saunders (1773–1812) who was the founder of the Royal London Ophthalmic Hospital, later to become Moorfields, wrote *A treatise on some practical points relating to the diseases of the eye . . .*

This book was published posthumously with the first three chapters by Saunders (Fig 2). The title of the book continues "*To which is added a short account of the author's life, and his method of curing the congenital cataract of his friend and colleague J R Farre, MD*" (1811).

Saunders wrote on the symptoms and treatment of ophthalmic neonatorum and iritis and on the eversion of the upper eyelid and its cure by excision of the tarsus.



Saunders remained a director of the Royal London Ophthalmic Hospital for the rest of his life as well as being a demonstrator of anatomy at St Thomas's Hospital.

A contemporary of Saunders was the controversial James Wardrop (1782–1869). He was understood to be a skilled and fearless operator, who was also an active lecturer and contributor to the medical literature in London. However, he alienated many of his colleagues by publishing personal attacks on them. Wardrop's book in the library consists of a series of *Essays on the morbid anatomy of the human eye*, written over a period from 1808 to 1818. This book is a landmark work, being the first to describe the pathology of eye disease. Wardrop introduced the term keratitis.

Our next ophthalmologist author is James Ware (1756–1815) (see Fig 3). Ware received a part of his training at St Thomas's Hospital and in 1800 founded the London School for the Indigent Blind.

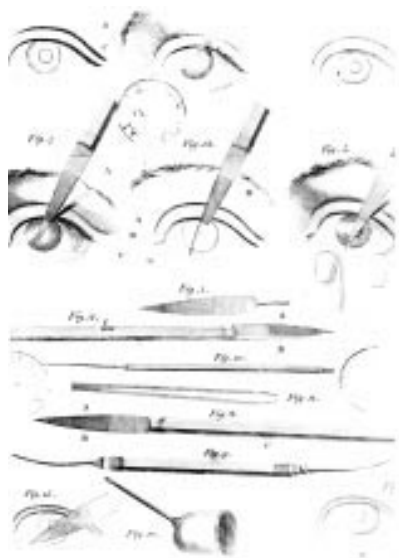


Figure 3 Illustration from James Ware's book.

At this time quackery in medicine was prevalent and Ware did much to rescue ophthalmology from these people. A second edition of his book published in 1787 is in the library and has the wonderful title of *Remarks on the ophthalmia, psorophthalmia and purulent eye; with methods of cure, considerably different from those commonly used; and cases annexed in proof of their utility; also the case of a gutta serena cured by electricity*.

Sir William Lawrence (1783–1867) was a major figure in ophthalmology of this same period. He was consultant surgeon at St Bartholomew's Hospital, Bridewell and Bethlehem, the London Fever Hospital, and the London Ophthalmic Infirmary. It was at the latter that he

A
TREATISE
ON
The Operations for the Formation
OF AN
ARTIFICIAL PUPIL;
IN WHICH THE MORBID STATES OF THE EYE REQUIRING
THEM, ARE CONSIDERED;
AND
The Mode of performing the Operation, adapted
to each peculiar Case, fully explained;
WITH
AN ACCOUNT OF THE OPINIONS AND PRACTICE OF THE DIFFERENT
FOREIGN AND BRITISH AUTHORS WHO HAVE WRITTEN
ON THE SUBJECT.
With Two Copper-plates.

BY G. J. GUTHRIE,

Member of the Royal College of Surgeons; Deputy Inspector of Hospitals during the Peninsular War; Surgeon to the Royal Westminster Infirmary for Diseases of the Eye; Member of the Medical and Chirurgical Society of London; Associate of the Medical Societies of the Faculty of Paris; Lecturer on Surgery, &c. &c. &c.

London:

PUBLISHED BY MESSRS. LONGMAN, HURST, REES, ORME, AND BROWN; CALLOW, PRINCES STREET, SOHO; BURGESS AND HILL, WINDMILL STREET; ANDERSON, SMITHFIELD; COX AND CO. BORO'; HIGHLY, FLEET STREET; MESSRS UNDERWOOD, FLEET STREET; CONSTABLE AND CO. EDINBURGH; AND HODGES AND M'ARTHUR, DUBLIN.

1819.

Figure 4 Title page from George Guthrie's *Treatise*.

gave lectures which became a milestone in ophthalmic surgery and formed the basis of his book *A treatise on the Diseases of the Eye* (1833).

This is the first English translation of *Traité pratique sur les maladies des yeux*, the first edition being published in French. Lawrence was a man of international repute and was honoured by membership of the medical associations of eight countries.

Another giant of the period was George Guthrie (1785–1856). One of the two books he wrote, which is in the library, is *Lectures on the operative surgery of the eye* (1823). This includes an important work on the artificial pupil. Hirschberg and other historians consider this to represent the first English textbook on ophthalmic surgery.

The other book Guthrie wrote was for students, based on a series of lectures on anatomy and diseases of the eye, the first to present such a systematic series in England.

As was the fashion in those days, the title of this book (Figs 4 and 5) was fully descriptive of its contents. *A treatise on the operations for the formation of an artificial pupil; in which morbid states of the eye requiring them are considered; and the mode of performing the operation, adapted to each peculiar case, fully explained; with an account*

of the opinions and practice of the different foreign and British authors who have written on the subject (1819).

George Guthrie, who founded the Westminster Ophthalmic Hospital, later incorporated with Moorfields, was twice elected president of the Royal College of Surgeons, and was a leading military surgeon of his day (under Wellington) as well as being a leading ophthalmic surgeon.

Sir Benjamin Travers (1783–1858) wrote a textbook in 1820 which was to become the authoritative book in England and America, being the first systematic treatise in English on the diseases of the eye. It was titled *A synopsis of the diseases of the eye and their treatment; to which are prefixed a short anatomical description and a sketch of the physiology of that organ*.

Travers studied under Astley Cooper and in 1810 became a surgeon at the London Eye Infirmary, Moorfields, and in 1815 was appointed surgeon at St Thomas's Hospital where he improved the extraction operation method for cataract.

Travers was surgeon to Queen Victoria and was succeeded by our next author Sir William White Cooper (1816–1886) in 1859. This in fact was the same year that White Cooper's book *On Wounds and Injuries of the Eye* was published. This was the first ophthalmic textbook in English devoted to injuries of the eye.

Among the many anecdotes and case reports there is the amazing story of the highly intoxicated fisherman in Ostend who managed to enucleate his own eye when falling on the key of his bedroom

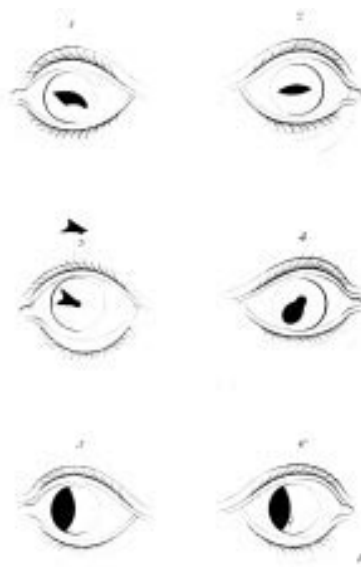


Figure 5 Illustration of artificial pupil from George Guthrie's *Treatise*.

door, went to bed, and slept deeply unaware of the injury he had caused himself. His eye was found on the floor the next morning! The case is illustrated by a woodcut of a bent key in a lock and the enucleated eye!

White Cooper was trained at Barts and was afterwards associated with John Dalrymple. In 1843 he was to become the first ophthalmic surgeon at St Mary's Hospital.

White Cooper was Queen Victoria's oculist from 1859 until his death in 1886. Two days after being informed of his knighthood he died from pneumonia. Queen Victoria held him in such esteem that she granted his wife the title of Dame.

The college is the proud owner of a copy of the first atlas of ophthalmoscopy. Richard Liebreich (1830–1917) produced his *Atlas des Ophthalmoscopie* in 1863.

Liebreich was assistant to von Graefe from 1854 to 1862, so witnessed first hand the enthusiasm that the greatest advocate of the ophthalmoscope brought to ophthalmology.

Liebreich left for England in 1870 and was appointed ophthalmic surgeon at the newly built St Thomas's Hospital where he stayed for the next 7 years before going to Paris. On his retirement his interest turned to painting and in 1899 he exhibited a portrait of his mentor von Graefe at the International Ophthalmological Congress held in Utrecht.

"The value of old books is enhanced by their scarceness. Most works dealing with scientific achievement eventually lose their original informative usefulness but Richard Liebreich's atlas is an exception: Even now it is readable and instructive." This comment was written by Paul Tower, MD, in an article published in the *Archives of Ophthalmology* in 1961 on Richard Liebreich and his atlas.

Apart from the antiquarian collection of ophthalmological books, the reference section in the Oxford Room includes 80 books from the classics of ophthalmology library donated to the college by Barrie Jay and John Winstanley. These facsimile editions have beautiful bindings and are a sheer pleasure to handle and read. Of the multivolume publications there are copies of Duke-Elder's *System and Textbook of Ophthalmology*, his own copy of Graefe-Saemisch's monumental work, *Handbook der Gersamnten Augenheilkunde*, and a set of the *American Encyclopedia of Ophthalmology*, edited by Casey Wood.

Professor Norman Ashton's lifetime's achievement in the form of a collection of 15 medals and awards is now displayed in a glass frame. Nearby hangs a beautiful black and white portrait of Helen Keller and her aide Polly Thompson, captured by the recently deceased photographer Yousuf Karsh. This was donated to the college by Norman Ashton who had received it on becoming the Helen Keller Laureate in 1998.

Not on display but available for study are Ida Mann's original documents of her publication on *Developmental Anomalies of the Eye*. Less well known are her two novels, *The Cockney and the Crocodile* and *China 13*, written under her married name Caroline Gye. These novels are a wonderful travelogue of her journeys in Australia, the Far East, and South America in search of trachoma.

A museum is often the final resting place for an individual's passion for collecting and so it is with this antiquarian library and the collection of ophthalmic instruments. As news of the college's museum has spread, other individuals have started to donate valuable books and old ophthalmic and surgical instruments. As with most collections in museums there is not enough space to display more than a small number of items at any one time.

It is to be hoped that by gathering together these old instruments and rare books at the college our ophthalmological heritage will be permanently preserved and it will provide researchers and visitors with a rich source of material to study.

Br J Ophthalmol 2002;**86**:712–714

.....
Author's affiliations

R Keeler curator, Royal College of Ophthalmologists; rkeeler@freenetname.co.uk



Antique ophthalmic instruments and books: the Royal College Museum

R Keeler

Br J Ophthalmol 2002 86: 712-714

doi: 10.1136/bjo.86.7.712

Updated information and services can be found at:

<http://bjo.bmj.com/content/86/7/712.full.html>

Email alerting service

These include:

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:

<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:

<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:

<http://group.bmj.com/subscribe/>