FREDERICK TYRRELL
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BY

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FREDERICK TYRRELL was born on December 30, 1793, at the Guildhall. His father, Timothy Tyrrell, held the post of City Remembrancer. Frederick was one of fourteen children, four of whom died in infancy and were buried in the old church of St. Lawrence Jewry which stands within the precincts of the Guildhall. John, the eldest, practised as a barrister and served on the committee of the Royal London Ophthalmic Hospital, George, the second son, entered the Navy and retired with the rank of captain. Edward, born the year before Frederick, stepped into his father's civic shoes and held the office of City Remembrancer for thirty-six years. Only one of the other children reached any position of great distinction: William, the youngest. He became Bishop of Newcastle, Australia, and left his name on the map, Lake Tyrrell, Victoria, being named after him.

Frederick Tyrrell lived with his parents at the Guildhall till 1804, in which year they took a house at Kew, facing the Green, with a garden running down to the river. The house still stands, although much altered. A narrow lane at the side leading to a small dock is known to the older inhabitants as Tyrrell's Lane. Tyrrell was

educated at Reading under Dr. Valpy, and, on leaving school, was apprenticed to Mr. Astley Cooper, for the usual period of six years. He afterwards went to Edinburgh to complete his medical studies. In 1815, shortly after the Battle of Waterloo, he served in the Military Hospital at Brussels for a brief period. He then started to practise his profession at 26, New Bridge Street, Blackfriars. He was married shortly afterwards to Miss Frances Susannah Cooper, sister of Bransby Cooper, the nephew and biographer of Sir Astley. In 1822 he succeeded Mr. Chandler on the staff of St. Thomas's Hospital. He also succeeded Mr. Travers on the staff of the London Infirmary for Curing Diseases of the Eye, thus becoming the colleague of Lawrence. This Hospital was removed in 1822 from its old quarters in Charterhouse Square to Blomfield Street, Moorfields, and was then known as the Royal Ophthalmic Infirmary.

In the following years he extended his labours to other fields by becoming Professor of Anatomy and Surgery at the Royal College of Surgeons and teaching at the Aldersgate School. He remained on the staff of the Royal London Ophthalmic Hospital, as it had once more been rechristened, until 1843, a period of 26 years. He died suddenly, on May 23, 1843, in his fiftieth year, after hurrying up some stairs to bid at an auction. He left a widow and seven children, one of whom, Walter Tyrrell, surgeon, was the father of the writer of this biography.

In 1840 Tyrrell published his book on diseases of the eye in two volumes, dedicated to his ophthalmic pupils. This work gives a good account of the clinical methods in use at that time, and is illustrated by excellent coloured plates. His interests were obviously more in the clinical side of his work. His account of his first cataract operation is of some interest as showing how his mind was swayed against the violent antiphlogistic methods of excessive bleeding and purgation prevalent at the time. He says, "When I became surgeon to the Hospital the usual practice was to take blood from the patients submitted to the operation of extraction in the evening after the operation; the first patient, a female, from whom I extracted a cataract, was bled in the evening according to the ordinary practice; after the loss of a few ounces of blood, the patient became faint, felt sick, after a few minutes vomited violently, and during the act of vomiting, the vitreous humour was ejected through the section in the cornea in so large a quantity as to destroy the eye. My operation having been performed as I wished, I was much annoyed by this untoward result, yet it gave me a useful lesson; I did not again allow a patient to be treated on the same plan."

The notes of his cases, now in the possession of the author, deal largely with the external diseases of the eye. The remedies of leeching, venesection, and purgation predominate, as they did in all

the clinical work of this period ; but the fact that he was less drastic than others in his application of them, must be put down to his credit. His belief in nourishing, rather than lowering, the vitality of his patients, is evident in all his later writings. That he was by no means at first completely won over to the other side is shown by his report of the case of a man of the name of Death, who was admitted into the Hospital with purulent ophthalmia. He says, "I directed bleeding from the arm till the patient fainted ; and, as his bowels had been freely acted upon, I prescribed a solution of tartar emetic, of which he was to take a dose containing a quarter of a grain every quarter of an hour, till he became nauseated, after which the dose was to be repeated whenever the nausea appeared to be subsiding ; further, he was to take two grains of calomel and half a grain of opium every six hours, and he was furnished with three dozen of leeches, with directions to apply twenty round the left eye if he experienced a return of pain or uneasiness. I visited him about ten o'clock at night, and found that all my directions had been carefully attended to ; he had been kept in a state of nausea, and thirty leeches had been applied round the left eye, on the palpebræ and cheek, but he still complained of much local pain. He had lost near thirty ounces of blood from the general bleeding, and several ounces more from the application of the leeches, yet I thought it necessary to take away a further quantity, there being evidence of acute local action. I therefore bled him again from the arm till he fainted, which he did after he had lost eight ounces of blood." He goes on to say that the poor fellow took several months to recover from the severe depletory treatment. The final result of the case was not a happy one.

Tyrrell's reputation as an ophthalmic surgeon rests chiefly on his operation for artificial pupil. It is recorded in a notice, after his death, in the archives of the Royal London Ophthalmic Hospital for 1843, that he was specially to be remembered for his success in this field.

The following is his own account of the method in which the operation was performed. "The patient should be placed as if about to undergo an operation for cataract. The broad needle should then be passed through the cornea, close to its junction with the sclerotic, and at that part of its margin which corresponds to the interval between the depressor and abductor muscles. In pressing the needle through the cornea, one flat surface should be parallel to the surface of the iris, and the other, of course, directed forwards—the instrument should be made fairly to penetrate the the anterior chamber of the eye, but should be kept quite free of the iris ; it should not be passed so far as the pupil. The puncture of the cornea usually admits of the escape of some portion of the aqueous humour ; but if it be carefully made, a very small portion of the fluid only exudes : and it is advantageous to retain such a

quantity that the hook may be carried into the anterior chamber without risk of entanglement in the iris.

The hook should be passed with the bent limb towards the cornea, or forward; and then it should be carried as far as the aperture of the pupil; and the extremity of the instrument being introduced through the pupillary space, the bent part of the hook should be directed backward, by half rotating the handle of that instrument between the finger and thumb. The pupillary margin of the iris should next be caught by the hook, by pressing the point gently towards the surface of the lens, at the same time that the instrument is carefully withdrawn. When, however, the bent part of the instrument is withdrawn, as far as the opening in the cornea, its passage will be generally impeded, whilst the point is directed backwards, as when catching the margin of the iris. It is then again necessary to half rotate the handle, so as to direct the bent limb forwards; but in doing this, the instrument must not be allowed to recede from the opening in the cornea, or the iris may slip from the hook. The hook being directed forwards, and still retaining a hold of the pupillary margin of the iris, should then be withdrawn through the corneal puncture, bringing with it part of the iris; and sufficient of the membrane should be drawn through the opening in the cornea, to effect the desired change in the position of the pupillary aperture of the iris.

The pupil, of course, loses its circular figure, and becomes pear-shaped, and narrowest immediately in connection with the puncture in the cornea.

The piece of the iris drawn through the opening in the cornea may be cut off by a fine pair of scissors, or left to separate by ulceration. I usually cut it off, as it lessens the after irritation of the organ."

He makes no mention of sympathetic ophthalmia occurring, but this was evidently not recognized as such at this time.

Bowman states in the *Medical Times and Gazette*, January 3, 1852, that the operation as modified by Tyrrell was almost exclusively practised in cases of corneal opacity at Moorfields Hospital at that time. Bowman introduced a further modification, using what he called a needle hook, of about the same size as Tyrrell's hook but with a sharpened flat end at the bend. This was thrust through the cornea without any preliminary incision, and the iris pulled through the incision. The advantage he claimed for this method was the retention of the aqueous throughout the operation.

to the Hospital for Sick Children, Great Ormond Street, and honorary physician to the King George Hospital. He had a charming personality—lovable, modest, genial, and tolerant.

Charles Edward Glasgott, senior consulting surgeon to the Manchester Royal Eye Hospital, died on August 14, after a brief illness, at Budleigh Salterton, Devon, where he had lived for some years in retirement. He had been Vice-President of the Ophthalmological Society of the United Kingdom (1902-1905).

We regret to announce the death, on July 19, of William James McCulloch Ettles, at the early age of 49 years. For many years he practised in the City, but on devoting himself exclusively to ophthalmology, he migrated to Harley Street. He was Treasurer, and had been President of the Hunterian and Optical Societies.

The following deaths are announced from America: John Chase, 62, of Denver; I. S. L. Bermann, of Washington, D.C.; H. T. Moore, 31, of Wilmington; A. F. Sanders, of Cincinnati; N. J. Hepburn, 71, of New York City; and Frank C. Todd, of the University of Minnesota.

Stephen Bernheimer, Fuchs's successor in the Vienna chair, died at the age of 57 years, on March 19, 1918. Ewald Hering, widely known for his researches on colour vision and other physiological problems, died on January 26, 1918, at the age of 84 years. A full account of his scientific achievements is to be found in the June number of the *Klinische Monatsblätter für Augenheilkunde*. Dr. Nicolai was killed in France, at the age of 50 years, on April 13, 1918. In civil life he enjoyed an extensive eye practice in Berlin.

NOTE

Appointment

MR. R. R. CRUISE, C.V.O., has been appointed a Surgeon-Oculist to His Majesty the King.

CORRIGENDUM

IN Wardrop's biography, published in the August number of this journal, it was stated that the brothers Hunter, like Wardrop, were born near Bathgate. The writer of the biography now informs us that the Hunters came from a district considerably farther west than Bathgate. The author was misled by a reference from a book generally considered as authoritative.