

Sir John Tomes: father of modern dental surgery in England

This year marks the 200th anniversary of the birth of John Tomes. He is recognized, without doubt, as the father of modern dental surgery in this country.

From primitive times, mankind has suffered the agonies of dental caries and dental abscesses. This is demonstrated by large numbers of examples of these conditions found in prehistoric skulls and mandibles from all over the world.

Relief from this suffering could only be obtained by submitting to the extremely painful procedure of dental extraction. This would have been carried out by men engaged in the other branches of the healing art, whether these were barber-surgeons or witch doctors, and there are references to dental extractions in Greek and Arabic medical writings.

Albucasis of Cordoba in the 10th century AD, in his 13-volume textbook, provides the first illustrations of instruments used for dental extraction. 'The pelican', so called because it resembled a pelican's beak, was a forceps designed to lever the diseased tooth from its socket; its use must have caused considerable damage to adjacent tissues. The 'dental key', about the size of a corkscrew, was used to lever out the carious tooth. A variety of fine metal picks could be used to remove residual fragments of tooth.

Most extractions would probably have been carried out by itinerant practitioners who had learned their skills from their seniors, and who would travel from town to town, often appearing at country fairs, to practice their skills. You have certainly seen them portrayed in old paintings, often accompanied by an assistant beating a drum to drown the screams of the victim.

Interestingly, in this country, one man, John Tomes, did much to establish modern dental practice and dental training.

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Tomes was born 200 years ago in Weston on Avon, Gloucestershire, on 21 March 1815. His father was a farmer. After attending local schools, Tomes was articled at the age of 15 years to a general medical practitioner in Evesham, and in 1836 he enrolled as a medical student at the Middlesex Hospital and King's College, then temporarily united. Although not qualified, he served as house surgeon at the Middlesex between 1839 and 1840.

Tomes then decided to become a dental surgeon and, in 1840, now aged 25 years, he set up in practice in what is now Cavendish Place, in central London.

'In 1850, at the age of 35 years, [Tomes] was elected Fellow of the Royal Society.'

Immediately he was appointed dental surgeon at King's, and from 1843 till 1874 he was dental surgeon at the Middlesex Hospital.

While still a student, Tomes gave his first paper, on the histological structure of teeth, at the Royal Society – the first detailed microscopic study of tooth structure to be published in this country. Several histological dental structures are named eponymously after him, for example, Tomes' processes on the enamel cells. He published extensively on the structure of teeth and bone and in 1850, at the age of 35 years, was elected Fellow of the Royal Society.

On the clinical side of practical dentistry, Tomes developed the dental forceps as we know them today, adapted with precision to the anatomy of the necks of the individual teeth. He also invented a device for carving ivory to adapt to irregular surfaces – essential in the production of well-fitting dentures.

In 1859, Tomes published his *System of Dental Surgery*, which was based on his lectures given at the Middlesex Hospital; it remained the standard textbook on the subject for the next 50 years. When ether became available in 1847, he immediately

adopted it into his practice and also acted as an anaesthetist for surgical operations at the Middlesex.

Perhaps Tomes' most important contribution to dentistry was his success, together with several other dental colleagues, in persuading the Royal College of Surgeons of England to introduce an examination for Licentiate in Dental Surgery of the Royal College of Surgeons in 1858. Having first, at this late stage in his career, passed the examination for Membership of the College (the MRCS), he became one of the first group of examiners for the Licentiate in Dental Surgery.

As chairman of the Dental Reforms Committee, he established the Dental Register, under control of the General Medical Council. In 1880 Tomes became the first President of the newly established British Dental Association, which, of course, flourishes today.

Tomes retired from practice in 1876. He was appointed an honorary Fellow of the Royal College of Surgeons in 1883 and was knighted 3 years later, the first dental surgeon to receive this honour. He died in 1895.

Townes became a dentist when it was a trade; he left it as a well-established profession. Much of this change was brought about by his own skill and industry.

Interestingly, Tomes' younger son (the elder had died young), Charles Sissmore Tomes (1846–1928), also studied at King's College and the Middlesex Hospital, qualified with both the Membership of the Royal College of Surgeons and Licentiate in Dental Surgery in 1869 and joined his father in practice. He had a distinguished career; lecturer at the London Dental Hospital, president of the Odontological Society and editor of his father's *System of Dental Surgery*. He became a Fellow of the Royal Society and, like his father, he was knighted (in 1919). **BJHM**

Conflict of interest: none.