



## Tale of the tooth-straighteners: a very special speciality\*

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The British Society for the Study of Orthodontics is the oldest of the United Kingdom's dental specialty societies and its publication, known as the *Transactions*, is a valuable source of material for anybody interested in the development of orthodontics over the first seven decades of the twentieth century.

Leighton<sup>1</sup> describes how on October 21, 1907, 11 dentists joined George Northcroft at his consulting rooms at 115 Harley Street, to discuss the possibility of founding a society whose object would be the promotion of the study of orthodontia. All but two of those gentlemen in attendance were in practice in the West End of London; the exceptions coming from Wimbledon and Eastbourne. As a point of interest three of this small group, Chapman, Lockett and Visick, were graduates of Edward Angle's in the United States and thus were members of a very exclusive group. Northcroft was certainly the catalyst for the initiative, believing that "orthodontics was such a special branch of dentistry, so little related to the others, that it needed its own society".

Anxiety was expressed that creating a society solely for orthodontics would be divisive to the whole field of dentistry. At that date the two principal dental societies were the British Dental Association and the Odontological Section of the Royal Society of Medicine. A further cause of worry was that it would become a group of specialists, whereas the primary aim was to provide a common ground where the whole profession could "elucidate the problems of orthodontia".

Agreement was however reached and the society was duly named the British Society for the Study of Orthodontia.

J.H. Badcock, one of the original 12, was elected as the first President and his presidential address given at the first meeting of the society held on January 22, 1908. This was subsequently published as the first paper in the *Transactions* and sets out the objectives of the Society<sup>2</sup>:

"Members were united by the common bond of interest in Orthodontics and any body with this interest could be a member. The Society would not be bound to any particular faction and hoped to attract representation from all schools of thought."

Badcock saw the British Society for the Study of Orthodontia as "a venue to read and discuss papers, receive casual communications and to have clinical evenings for the demonstration of methods and results". The society would also found a library and build up a museum of orthodontic items. He also proposed setting up investigating committees to look at specific topics.

There were 42 founder members and a further 28 joined in that first year. The original name of the Society was the British Society for the Study of Orthodontia. Carl Schelling<sup>3</sup> told members how, one day towards the end of 1908, Sir Herbert Warren, then Master of Magdalene College, Oxford, was in his rooms when he chanced to see

a notice headed "British Society for the Study of Orthodontia". He enquired what orthodontia meant. Schelling replied that it was a word taken from the title of Angle's book. Warren suggested that Schelling write to Sir James Murray, the Oxford philologist and editor of the Oxford Dictionary, to ascertain if it was acceptable. Murray, in his reply, set out various objections to a termination with an "a" being made to a word of Greek rather than Latin origin and suggested, on the analogy of music or logic, or physics or statics, that an ending in "c" or even "cs" for euphony, would be more desirable, hence the word orthodontics. He went on to add that there might be a case for the word "orthodonty", to describe patients who as a result of having had treatment had attained straight toothed-ness. At the AGM. in 1909 the title was duly changed to the British Society for the Study of Orthodontics and the word has now been adopted throughout the world.

The forerunner of the *American Journal of Orthodontics* was known originally as the *International Journal of Orthodontia*. Although it was first published in 1915 it was not until 1938 that the name was changed. The European Orthodontic Society, again a product of Northcroft's enthusiasm and formed just after the BSSO, was known at the beginning as the European Ortho-odontological Society. The lectureship at the London Hospital, which again would probably have been instigated under Northcroft's influence, was known as the Lectureship in Odonto-prosopic Orthopaedics.

### **On the record**

During the initial discussions for setting up the society the decision was made to keep a record of its activities. It was recognised that a record not only of the original contributions but also of the discussions stimulated by the papers would be of value. The society arranged for shorthand reporters to be present to take down the discussions so that they too could be published. Other journals contain discussion sections but it certainly is not a feature of modern scientific literature. On some occasions the discussions became quite acrimonious. The policy of including a discussion section continued until publication ceased but was not continued in the new *British Journal of Orthodontics*, which succeeded the *Transactions*.

The *Transactions* were published annually between 1908 and 1970, with the exception of a few years during the First and Second World Wars when several years were combined. On one occasion, in 1942, the drafts were destroyed by enemy action, but luckily other copies were found to enable publication to go ahead<sup>4</sup>.

Articles were published monthly in the *Dental Record*, and then bound for annual distribution to all members as the *Transactions of the British Society for the Study of Orthodontics*. The *Dental Record* was published by the Dental Manufacturing Company and when that company ceased, it was taken on in 1947 by Messrs. Saward, and in 1953 by John Wright. Papers then appeared monthly in the *Dental Practitioner*, until that journal in turn ceased publication, in 1968.

Bound volumes of the *Transactions* appear on the shelves of libraries with dull brown covers. It is hard to imagine a journal published in a less appealing format. The appearance is not likely to stimulate further investigation and in modern parlance it needs a "makeover". In all, 56 volumes were produced .

The purpose of my study, of which this is a preliminary report, is to catalogue the 56 volumes according to title and author. Abstracts of particularly interesting papers will be prepared but all papers will be categorised as to type and appropriate keywords allocated for future reference. The category and pattern of keywords can be seen to change over the years as orthodontic knowledge has progressed. Many of the papers are case reports and are now of limited use but others provide a valuable picture of the development of orthodontics in the United Kingdom. Some are seminal and have had a great impact on orthodontic development. In addition to the scientific papers read before the society the *Transactions* also contain membership lists and reports dealing with society organisation.

### **International figures**

A new president is elected each year and gives both an inaugural and a valedictory address. In 1947 a lecture named after George Northcroft was founded and this was also published in the *Transactions*. Not only were leading British scientists chosen to deliver this lecture but international figures have also contributed.

There is obviously a wealth of material contained within the *Transactions*, sufficient for many articles, but as an introductory survey the early presidential addresses and details about the presidents might prove worthwhile.

Badcock, the first president, whose address<sup>2</sup> has already been mentioned in connection with the society's objectives, predicted a great expansion of interest in orthodontia and the appearance of specialist orthodontic practitioners. He bemoaned the fact that people interested in the furtherance of their orthodontic careers often had to go to the United States for further training and he called for more training and emphasis on orthodontics in our own dental schools. At that time, in most dental schools, orthodontic instruction was not by specialists but was part of operative dentistry.

The concept of an ideal occlusion, as proposed by Angle, as an ideal treatment aim was valuable but blind adherence to the occlusion principle was being pushed too far. He disagreed strongly with the accusation that anybody resorting to extractions should be regarded as a criminal. This comment was in response to the strong non-extraction opinion emanating from America. Badcock urged members not to forget the large number of patients who could not afford expensive orthodontic treatment, and for whom extraction was the only course available.

J. H. Badcock was a distinguished practitioner in Harley Street for over 50 years, the practice being renowned for its high standard of conservative dentistry and orthodontic work<sup>5</sup>. His ingenuity in devising and constructing orthodontic appliances was renowned and for many years the Badcock screw and expansion-plate was widely used. He qualified in dentistry in 1887 at the London School of Dental Surgery, later to become the Royal Dental Hospital, and received his medical qualification three years later, having studied at Charing Cross Hospital. He was also president of the British Dental Association, the Odontological Section of the Royal Society of Medicine and of the Second International Orthodontic Congress, held in London in 1931.

George Northcroft followed as second president in 1909. Born in 1869, he had an interesting and unusual start to his dental career. After leaving school he went to the

University of Michigan at Ann Arbor and obtained his DDS before returning to the London School of Dental Surgery for his LDS. He maintained close contacts with colleagues in North America throughout his life and later in his career an honorary degree of LL D from Toronto was conferred upon him. Like Badcock, he became president of both the BSSO and the British Dental Association. The BDA annual general meeting during his presidency was held in Toronto<sup>6</sup>. >>

When the London Hospital Dental School was founded he was appointed as the first lecturer in Dental Surgery and he remained there for the rest of his career. Retirement was postponed because of teaching staff shortages occasioned by the Second World War and he continued to work until his death at the age of 74.

The theme of his presidential address<sup>7</sup> was "Study". Treatment he said must be based on the sure foundation of studies of both normal and abnormal development. His interest in occlusion led him to conclude that it is frequently just regarded as a basis for classification and that the study of both normal occlusion and abnormality would be beneficial. He said that the impact of extraction as part of orthodontic treatment was still contested and demanded research. Northcroft appealed to members to collect and send records to the Society's museum. He particularly mentioned radiographs, at that date a relatively new innovation. He even suggested the creation of an "Investigation Bureau" to aid research and the accumulation of knowledge.

### **A Scottish president**

The next president was James Sim Wallace, of particular interest to us because he was born in Renfrewshire and studied at Glasgow University<sup>8</sup>. When he was 20 he obtained a BSc in biology. He received the prize given by the Regius Professor of Botany for the best collection of plants indigenous to the Clyde Valley. His MB ChB was awarded at 21 and an MD followed at 24, the title of his thesis being "Nitrous Oxide in Anaesthesia". His father was a dentist in Glasgow and he entered the Glasgow Dental Hospital but left before qualifying. He spent the next years as a ship's doctor before completing his dental studies at the National and Royal Dental hospitals in London.

In 1900 he published "The Cause and Prevention of Decay in Teeth", based on a thesis submitted to Glasgow University for which he was awarded a Doctorate of Science. It is reported that this was the first time that this degree had been awarded on a dental topic. Shortly afterwards another monograph, "The Physiology of Mastication" was published, dealing with other aspects of prevention.

He had an extensive orthodontic practice and devised and introduced the prosopometer, an instrument designed to take serial measurements of the face and jaws during growth. Before the introduction of profile radiographs this was the most effective method of studying facial growth in living individuals. A study of the Index to Dental Literature reveals his phenomenal output of papers and books over 50 years.

In 1923 he became lecturer in preventive dentistry at King's College and this was his main interest in the final part of his career. His work earned him the sobriquet the "father of prevention". In the United Kingdom he was awarded the Tomes and Cartwright Prizes, honorary Membership of the BDA and elected President of the dental officers group of the Medical Officers of Health Society. He enjoyed an

international reputation, lecturing widely in North America and was elected as an honorary member of many foreign societies.

His presidential address<sup>9</sup> bore the title "Specialism in Relation to the Study of Orthodontics". He was originally one of those people worried that the formation of the BSSO would split the dental profession and he refers to this as the curse of "specialism". He took heart from the fact that the society was for the study of orthodontics rather than the practice or teaching of orthodontics. His other worry was that consideration of occlusion and regulation appliances would overshadow the scientific basis of the study of orthodontics. He was pleased to record that his worries had not materialised.

The *Transactions* of the BSSO provide a fascinating account of the development of orthodontics between 1908 and 1970 and the details become more enjoyable when supplemented with biographical details of the key players in the society.

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\* Based on a paper given to the History of Dentistry Research Group in November, 2001

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