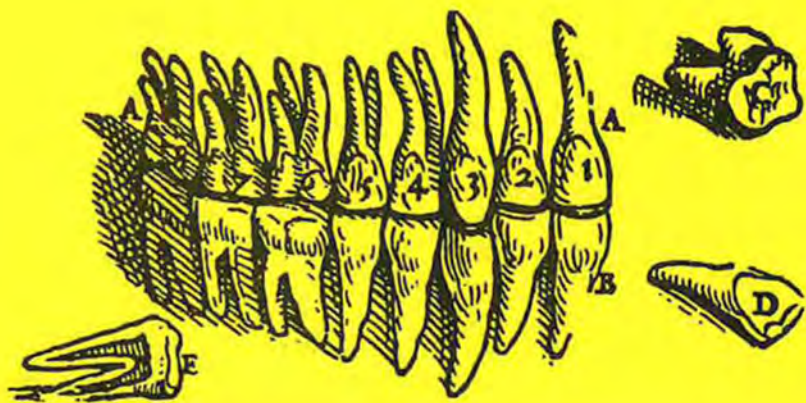


DENTAL HISTORIAN



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CONTENTS

Officials of the Lindsay Society, 2000-2001	2
Obituary: Ronald A. Cohen	3
Ideas of Vesalius and his Successors on the Transition of the Dentition <i>V.G. Lorber, W.D. Lorber, B. Kahl-Nieke</i>	5
The East Anglian Dental Laboratory Limited, 1936-1961 <i>Martin Cubitt</i>	14
<i>Transactions of the British Society for the Study of Orthodontics - The</i> Early Years <i>G.S. Taylor</i>	18
Doc. Holliday: Gun 'Totin' Dentist of the Wild West <i>Rufus M. Ross</i>	30
Dental Practice in Lancaster, 1800 to the present - A Personal Account <i>John Sandham</i>	45
'My Dearest Lil': Letters and Diary of Robert Lindsay <i>Edited by E. Muriel Cohen, MBE</i>	54
Lancaster: Autumn 2001 <i>The Editor</i>	77
Lindsay Society: A New Constitution	79

Cover illustration

Illustration of the dentition and longitudinal section of a tooth by Vesal (1543). See 'Ideas of Vesalius and his Successors on the Transition of the Dentition' by C.G. Lorber *et al* in this issue, pp. 5-13.

LINDSAY SOCIETY FOR THE HISTORY OF DENTISTRY

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In Britain: members of the British Dental Association, dental students and other interested persons not dentally qualified. Overseas: all dental practitioners and other interested persons not dentally qualified.

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Dental Historian

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RONALD A. COHEN

As many readers of *Dental Historian* will be already aware, Ronald died on 12 November 2001 at the age of ninety-four. He achieved so much during the course of his long life that a brief obituary such as this cannot possibly do justice to his contributions to the dental profession and to dental history in particular.

He was a Founder Member and first Chairman of the Lindsay Society (then called the Lindsay Club) in 1962, a position he held for five years. Also in 1962, he delivered the first lectures on dental history at the Birmingham Dental School and, in 1967, was appointed part-time lecturer in the history of dentistry to the University of Birmingham. This provided him with more time to pursue his research interests in an academic environment. Not that he needed this environment in which to work because he had already been publishing on dental history for over thirty years. Further external recognition of the quality of his work came in the early 1970s, when the Wellcome Trust funded the establishment of the Dental History Unit at the Dental School. Ronald's excellent memory and encyclopaedic knowledge meant that he was rarely at a loss to provide the detail. He never suffered fools gladly and taught many an academic (myself included) the need to check every fact prior to publication. Nevertheless, he had a wonderfully dry sense of humour and a charming glint in his eye when delivering his admonishments. We all respected him, not just for his knowledge but also for his kind and generous nature.

Over his long career he produced nearly one hundred publications, over half of which were major contributions to the literature (books, monographs and research papers). A selection of these was published by the Lindsay Society in 1997 to celebrate Ronald's ninetieth birthday. In addition he delivered many lectures, both on his published as well as his unpublished work. In order to commemorate various landmarks in their histories, he was called upon to write so many histories of the Birmingham Dental Hospital, the Dental School and the Dental Students Society that he could well have had the title *historian laureate*. Honours bestowed by many institutions include an honorary MA of the University of Birmingham and honorary memberships of the American Academy of the History of Dentistry, the Société Française d'Histoire de l'Art Dentaire and, of course, the Lindsay Society for the History of Dentistry. He was the first recipient of the Lindsay Medal of the

Lindsay Society, a Fellow of the Society of Antiquaries and recipient of the Tames Medal of the BDA.

He was in great demand as a lecturer and was equally at home speaking to small groups of lay people as well as delivering eponymous lectures to august institutions. He continued working on dental history right up to the day of his death, at which time he had just completed the text of a presentation he hoped to give one month later, either in person or on video, to a meeting at the University of Birmingham to commemorate the Centenary of the first British graduates in dentistry. Ronald's library and collection of dental artefacts is probably unrivalled in private hands in Europe. It is a fitting tribute that the Dental School used this Centenary Meeting to inaugurate a fund to help it enable the University to keep his library together for the benefit of future academic research.

Historical research was not Ronald's only contribution to dentistry. After qualifying in 1930, he developed a highly respected general dental practice in the centre of Warwick where he worked until his retirement from clinical work. For many of these years he was also dental surgeon to hospitals in Leamington Spa and Warwick. He was Chairman of the Family Practitioner Committee of Warwickshire for seventeen years, Chairman of the Leamington Medical Society and at various times was President of the Central Counties Branch of the BDA, the Odontological Section of the Royal Society of Medicine and of the Birmingham Dental Students Society.

Perhaps the lowest period of his life was that following the death in 1976 of his first wife, Beatrice, to whom he had been married for forty-two years. However, following his re-marriage five years later to Muriel Spencer, one time Librarian of the BDA, he appeared transformed and rejuvenated. Working in partnership, they continued their work on dental history for a further twenty years. Ronald will be deeply missed by Muriel, his family and friends, all of whom will remember him with respect and affection.

David Hillam

IDEAS OF ANDREAS VESALIUS AND HIS SUCCESSORS IN THE CHAIR OF ANATOMY AT PADUA ABOUT THE TRANSITION OF DENTITION

Curt Gerhard Lorber, Wilma Dorothee Lorber,
Bäbel Kahl-Nieke*

Introduction

The epochal work of Andreas Vesalius, *Fabrica corporis humani*,¹ published in 1543, fundamentally differs in text and illustrations from all the preceding works. Totally inspired by the thinking of the Renaissance, Vesalius' book overshadows all preceding works in every respect. This is already revealed by the comparison of the illustrations in Vesal's opus magnum (*Figures 1a and 1b*) ascribed to Stephan of Calcar, disciple of Tizian, with those of the *Anatomia capitis humani* published in 1536 by Johannes Dryander (1500-60),² his specialist colleague at Marburg (*Figure 2*). Whereas Dryander's illustrations of the skull appear very schematic and one-dimensioned, even showing an incorrect number of teeth, the reproductions of Vesalius' work are extremely realistic and life-like; despite the depicted singular antagonism with its inherent shortcomings in the perception of anatomical details that were only corrected by later generations. Nevertheless, W. Leibbrand's assertion that the printing blocs of Vesalius' work were sold later and adorned to other

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† At the authors' request, this paper is dedicated to the memory of Christine Hillam.

1 Andreas Vesalius, *De humani corporis fabrica* (Basileae: 1543).

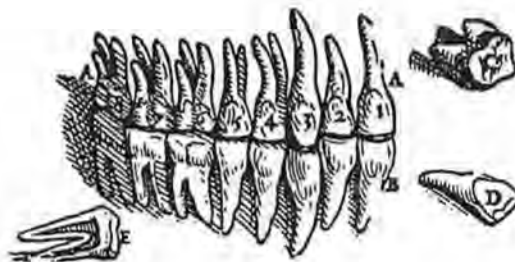
2 Johannes Dryander, *Anatomia capitis humani* (Marburg: 1536). [With the circle-monogram of the artist Thomas of Basel.]

medical books,³ for example the book of the anatomist Felix Platter from Basel, seems to be very probable.

Figure 1a Andreas Vesal's illustration of the lower jaw and teeth (1543).



Figure 1b Illustration of the dentition and longitudinal section of a tooth by Vesal (1543).



³ W. Leibbrand, *Heilkunde, eine Problemgeschichte der Medizin* (München: Karl Alber-Verlag Freiburg, 1953), p. 183.

Figure 2 Johannes Dryander's illustration of the skull and the teeth (1536).



Vesalius new knowledge of the anatomical structure of the teeth

Vesalius' contemporaries were more impressed by his anatomical conception of the structure of the teeth,⁴ being completely different to Galenos tradition; Vesalius himself was very proud of his new perception. This is also expressed by the Milanese Gabriele Cuneus in *The Examination of the Apology of Franciscus Puteus in favour of Galenos in Anatomy*.⁵ Here he apparently refers to the description of the anatomical structure of the teeth when reviewing the topic of toothache in the fifth book of Galenos: 'De compositione medicamentorum secundum locos' ['Of the composition of medicines in accordance to the parts of the body'].⁶

Galenos writes that the pain arises in the nerve implanted to the root of the tooth. Cuneus now points out that Galenos thought the nerves to be attached to the roots of the teeth, and the teeth to be solid; he was not aware of the cavity, which can be observed in the tooth of every living human being. Quite opposed to Puteus, Vesalius was of the opinion that this cavity was naturally clearly discernible in men as well as in cows, sheep and dogs; only the

⁴ Andreae Vesalii, *Anatomicarum Gabrielis Falloppii observationum Examen. Venetiis apud Franciscum de Franciscis Senensem* (Venice: 1564), p. 33.

⁵ Gabrielis Cunei Mediolanensis, *Apologiae Francisci Putei pro Galeno in Anatome examen. Venetiis apud Franciscum de Franciscis Senensem* (1564), p. 19.

⁶ Claudii Galeni, *Opera omnia*. Editionem curavit C.G. Kühn (repr. Hildesheim: Georg Olms, 1965), vol. XII, p. 849.

opening at the bottom of the root, through which the nerve extends to the bony jaws for its function – as he underlines – was hidden from us.

The opinions of Vesalius about the transition of the dentition

In the following we will focus on Vesalius' opinion about the transition of the dentition,⁷ which appears curious in certain aspects:

Then it should not be overlooked that the teeth of boys consist of incomplete and so to speak marrow-like roots, similar to the part of the teeth visible outside of the gum that are joined together with the roots of the teeth in the way of an appendix [appendicis modo].

He declared in another passage of his work:⁸

The epiphysis which the Latinists render to as appendage, protuberance, annex, addition, adjunct and numerous other manners, I shall constantly term it appendage. [Epiphysis. quam Latini appendicem, applantationem, adnexum, adnatum, et alijs innumeris profecto modis reddunt, perpetuo appendicem appellabo.]

In this context W. Hoffmann-Axthelm speaks about Vesalius' 'epiphysis', or 'appendage', theory.⁹ Vesalius continues his work:¹⁰

And indeed we have learnt as boys, when we used to take out our own or our fellows loose teeth, particularly the incisors with the nails or a thread put around the tooth; and we also daily observe in mules and many dogs the appendages to fall out by maintaining the roots of the teeth. Eventually it must be very accurately examined, that after a boy has fallen we do not tear out the remaining part of some tooth broken by a fall, but only the appendix, in which place another immediately grows again (on the premises that the root is preserved).

Moreover it is also especially useful to take into account, that the molar-teeth become eroded and useless corresponding to progressing age. It is indeed worth the effort to take out the epiphyses of the molar-teeth (which in general do not fall out on their own like the incisor's epiphyses) in order to enable new teeth to grow again in their place and to keep the teeth uninjured. Thus the connection of the epiphyses is strengthened in according to progressing age and the epiphyses never fall out. However often at the age of puberty some teeth with roots damaged by decay have to be removed.

7 - Vesalius, liber I, p. 46.

8 *Ibid.*, p. 7.

9 W. Hoffmann-Axthelm, *Die Geschichte der Zahnheilkunde* (Berlin: Die Quintessenz, 1973) p. 136.

10 Vesalius, liber I, p. 46.

Vesalius' interpretation about the transition of the dentition¹¹ is said to result from a misunderstanding of a passage in Celsus' eighth book:¹²

And from that same root a new tooth rises in boys, that more frequently expels the former tooth, but sometimes shows itself above or below it.

Concerning this L. Choulant remarked:¹³

The eight books of Aulus Cornelius Celsus, a contemporary of the emperor Augustus, had dealt with the whole medicine of this time mainly according to Hippocrates and Asclepiades. But in the middle ages Celsus seems to have been studied only to a very limited extent and evidently all codices hitherto known originate from a unique, now unfortunately obscure source.

Thomas Perentoncelli de Sarzana (later Pope Nicholas V, who reigned 1447-55) is said to be the first having found Celsus' codex again. The Edition Florence, 1478, published by Bm. Fontius and printed by Nicholas, should have been at Vesalius' disposition.

The views of Realdo Mattheo Colombo concerning the transition of the dentition

Afterwards Vesalius, Realdo Mattheo Colombo, who later taught in Pisa and Rome, chaired the Anatomy in Padua for two years. In his work,¹⁴ appearing in the year of his death (1559), he did not proceed much further in the discussed problem than his predecessor:

The teeth of the boys have appendages (epiphyses), which in the course of time, even if not all, tend to become loose and shaky. For this reason they fall out either by themselves or they are taken out with the nails or a thread without great difficulty. Those appendages however, which remain, as it frequently is the case with the molars, are so tightly grown together with the tooth, that they seem to be part of them and can not be removed so easily. By removing the appendage the root is preserved. It is not surprising, if a little later the tooth grows again and replaces the last appendage. For this reason one ought to take care if, by fall or some blow, boys' teeth are chipped off not to take out the remaining part; on the contrary the

11 Hoffmann-Axthelm, p. 69.

12 Aulus Cornelius Celsus, *De medicina libri octo*, Biponti (1786), liber octav., caput prim., p. 500.

13 L. Choulant, *Handbuch der Bücherkunde für die ältere Medizin* (Leipzig: 1841), p. 166.

14 Realdo Matthei Columbi, 'Cremonensis', in almo Gymnasio Romano Anatomici celeberrimi, *De re Anatomica* (Venetiis: 1559), libri XV, p. 36.

root itself should be preserved most carefully whenever possible. Because inside the root, like in a seed, rests the hope for regeneration of the same tooth. If this root was removed more radically the teeth will not grow again or only extremely seldom.

The views of Gabriele Falloppia regarding the change of teeth

The second successor of Vesalius at the Anatomical chair in Padua, Gabriele Falloppia, comments on this question in his *Anatomical Observations*,¹⁵ published in 1562, as follows:

Listen to this view regarding the same teeth, which is not very popular. Because the anatomists sometimes see, that in young boys teeth are removed, which are incomplete and soft and so to speak excavated at their top, the opinion evolved, the teeth to be equipped with appendages, which fall out, while the remaining germ of every tooth would grow back. The divine Vesalius under no circumstances would ever have said this, if in the perfection of his art (which praise can never be denied to him) he had observed the skulls of the young boys most carefully and especially those born incompletely because of miscarriage. The teeth

Gabriele Falloppia writes further,

have two origins: one in the womb after the development of the cheekbones, at which time a number of twelve teeth are formed in the lower jaw and just as many in the upper jaw, of course six on either right and six on either left side, four of which are called incisors, two canines and six 'maxillares'¹⁶ or molar-teeth, three are naturally on either of both sides. All these teeth are incomplete and without roots hidden in their dental alveolus and in the same manner twelve under their intact gums, as I observed in many corpses. However it should be noticed, that I once or at most twice observed only four 'maxillares'-teeth, double on both sides, together four teeth, with the remaining six equalling a number of ten in the lower as well as in the upper jaw in this first generation of teeth observed in the maxilla or the upper jaw. These teeth consist, when the child is born, of different materials, one bony and hard, the other soft. The anterior part, with which they are about to erupt, is osseous and hollow; the rear however is rather smooth and liquid and seems to be covered by a certain delicate sheath also found in the development of feathers while they are still delicate. Since this part, which projects out of the skin, is horny and hard, that part hidden in the feathers however is gentle and moist like blood or concentrated fat. Similar to these teeth, where their first part is hard and bony, the middle or that part lying concealed to the last, appears soft or like mud grown together with phlegm. While they are breaking through gradually this part hardens by and by and becomes osseous and hollowed out and the roots are formed. For this reason it happens, when we have chosen the skull of a newborn but perfectly developed boy for examination, that this gentle back part is destroyed by

cooking and only the osseous part about to break through the gum is left and recognized as a tooth. But if a raw skull is dissected, also the latter part can be recognized as a tooth without any difficulty, which gradually hardens in the living animal and, as said, is transformed bony within the span of several years. For this reason it happens, that teeth drawn out around the age of seven or a little earlier or later may seem as appendages of certain roots, which hitherto are left behind from the germinating ones underneath or are expelled imperfectly. After the tooth has been destroyed, the soft part of the tooth remains in the alveolus or is destroyed by the successor, which pushes it out.

The other stage in which the teeth are developed after the child is born, is in fact before the seventh year. From certain hidden seminaries of fathering in the bones of the jaws ten teeth in either of both sides develop, the upper naturally and the lower, five at the right side and five at the left. Four of those are incisors, two canines and four 'maxillares'; two of these 'maxillares' are the kind called wisdom-teeth by philosophers and Greeks or jaw teeth [or back teeth] by us. Six of these anteriors thrust out the first teeth and mount their places, when breaking through; if this happens by fall, for some hidden reason, or by the carelessness of the wet-nurses the foremost are plucked very little or fall out by themselves; the hind teeth nevertheless break through on the paths [alveoli] arranged for them in the lower jaw-bones, they burst more on the outside, in the upper jaw in fact inwardly, (which may vary). And a new order of teeth seems to spring up, which often mocked the Historians and equally the Anatomists. From the remaining four, which are 'maxillares' the two last jaw teeth [or back teeth] never thrust away others from their seats, when breaking through around the age of three times seven years continuously until ten times seven years. The other two indeed at some time thrust away the first 'maxillares' sometimes (which is more frequent) they arise beside them increasing the total number. Concerning the places, in which they first grow, they are teeth of the second order.¹⁷ The outermost of the jaw teeth are the borders of the jaws. But the place of the 'maxillares' is immediately under the root of that 'maxillaris'; this happens after the canines is expelled by a new one (as is said) and sometimes is not nevertheless. But between the maxillaris and the neighbouring canine a new one is formed. The place of the new canine is under the utmost root of each former canines because it is set very high in the jaws nearly touching the lower circumference of the eye and that aperture, through which the nerve of the third pair¹⁸ extends to that part of the face. One of the incisors, which are on either side (for two are rights and two lefts), being the outer, is laid between canine and incisor; the other being the inner, chooses its place between the outer and that incisor equally. Having dispersed the bone all these teeth burst forth and come to the air, when the first teeth have been driven away or have fallen out. By a life-giving agitating spirit (as I suppose) the bone is hollowed out and at the same time a membranous follicle is produced possessing twin-born summits. Later on a little nerve, an arteriola and a venule is attached to one summit; to the other another from which even a certain tail belonging to the nerves hangs down, which comes out through a very narrow aperture of the bone to the side of that tooth, to which the new ascends continually to the gums. In that follicle a certain white and tenacious material

15 Gabriele Falloppia, *Observationes Anatomicae ad Petrum Mannam medicum Cremonensem (Venetiis/Coloniae: 1562)* pp. 38-43.

16 At this time anatomists did not yet differentiate between premolars and molars.

17 In today's nomenclature this would be termed 'permanent dentition'.

18 In today's nomenclature: of the fifth pair of the cerebral-nerves, here of the nervus infraorbitalis.

grows together and hence the tooth is transformed bony and in the posterior consisting on the described material. This also happens in those, which are produced in the womb. Every single tooth however breaks through that dilated aperture, through which, when existing before very narrow, the tail of the follicle already mentioned by me was transmitted: and the follicle is broken off and the tooth stands forth naked and hard and in the following time is finished to its later parts. This to be true I have observed by much sweat and in a long span of time and by applying every diligence and I do not doubt, if you would come into this work together with our Capredonus, you should approve this story.

Vesalius' comments

Vesalius replied to this in his *Examination of the Anatomical Observations of Gabriele Falloppia*:¹⁹

What you here utter about the teeth pleases me very much, and that the teeth are not formed by appendages and that those in the alveolus of boys are soft and the mounting on the outside becomes hard and bony however, that I am taught thoroughly by eating the heads of lambs and young goats, in which most hold the bottom of the later molar teeth as a delight.²⁰ On the contrary, when we variously broke off the roasted jaws of hitherto sucked little pigs we have learned very quickly the nature of these molar-teeth (which by all means close to the perforation of the jaws at such a time are hidden). Otherwise it is certain, that in the meantime many broken out teeth have fallen out in boys and many other animals just as if they were appendages. As I also do not doubt, that the cavity, which I as the first – as I know – have ascribed to the single teeth in proportion to their form and greatness must be born back to the number of those hollows, which are procreated on account of the lightness of the bones and also with regard to nourishment. Beside this I believe that equally the membrane of the cavity of the teeth itself does not differ from the membranes of the described hollows and the substance situated in their inmost part. Therefore, the cavity in the complete tooth does not stand more apart or separate from the base of the tooth, as much as the end of it. In the incisors however, because they are thin, where they cut off, the hollows are more drawn back from the base as in the canines and molars. We see, that in many bones veins, arteries – not to say nerves – are planted in their hollows. Who does forbid, that you imagine, that this also happens in the teeth?

Further consideration of this question

With these expositions, the problem first of all seemed to be solved. Then, in 1563, the *Booklet about the Teeth* by Bartholomeus Eustachius appeared,²¹ which treated questions involving or connected with the teeth more exactly, and yet more exhaustively, than Gabriele Falloppia had done, and

which is also at our disposal in the German translation by Fritz Driak, the tooth-clinician of Vienna since 1951.

Nevertheless still, in the eighteenth century, the problem was dealt with uneasily in medical theses, for example *About Wisdom Teeth and their Illnesses* by Martin Gotthelf Loescher and Johann Christian Schwardt, where we read in chapter IV:²²

It should be allowed us to cite Realdo Colombo, a famous learned person in Anatomy, who reports in his book: 'On Anatomy' of the following observation:

'Concerning the origine of the teeth I know, that those, who believe, the teeth only to come in existence when breaking through the gum, are erring thoroughly. For I know surely, that they grow already in the womb. This I have shown frequently to the very surprised spectators, when I pulled out of the gum and the alveolus little teeth from children, who had died in the womb. I have investigated this matter so exactly, because hardly anything was known about it there. From that observed until now one can conclude, the teeth not to arise anew in a so called regeneration – like the nails in fingers and toes – but already in the embryo where they are lying in their alveolus. The first teeth are then pushed aside by the succeeding teeth, which step into their place and were hidden until this time.'

The spreading of scientific knowledge then, of course, took much more time and its state of knowledge did not become obsolete as quickly as today.

19 Vesalii, pp. 33-34.

20 In these very times the people of Brussels – and Vesalius originated from this town – were considered gourmets.

21 Bartholomaei Eustachii Sanctoseverinitatis, *Libellus de dentibus* (Venetiis: 1563).

22 Martin Gotthelf Lescher and Johann Christian Schwardt, *De Dentibus Sapientiae Eorundemque Morbis* (Wittenberg: Dissertatio Inauguralis Medica, 1728), p. 10.

THE EAST ANGLIAN DENTAL LABORATORY LIMITED, 1936-1961

Martin Cubitt*

On 4 July 1930, the large Georgian town house, 41 All Saints' Green, Norwich, was sold at auction. The vendor was a distinguished Norwich surgeon, Sir Hamilton Ashley Balance, KBE, CB (1867-1936), and the purchaser Mr Ivan Spain, a local dental surgeon. Mr Spain adapted the ground floor to accommodate three dental surgeries and the first floor billiard room was converted into a dental laboratory. This large room, twenty-five by sixteen foot, had good natural illumination through three south-facing windows.

Five years later the laboratory was undertaking outside work as well as satisfying the dental prosthetic needs of Mr Spain and his partner, Mr Leslie G. Champion. It was decided to form a private company to be known as the East Anglian Dental Laboratory Limited. The Articles of Association of the company were signed on 1 January 1936 by the three directors: Frank Failes, Harry Bowhill and Geoffrey Hayden, described as dental mechanics. At its first meeting on 10 January Mr Failes was elected chairman, and Miss Reeve appointed secretary at a salary of twenty-five pounds per year. Miss Reeve was Mr Spain's practice secretary and she served him and his successors for forty years. A pupil was taken on and two apprentices transferred from Mr A.H. Turner. Mr Failes was to control metal work and stores; Bowhill and Hayden were to be responsible for vulcanite and plastic work respectively.

Although vulcanite was the most commonly used denture base, alternatives had been sought ever since the royalties imposed by its developer, Good-year, had made its early use expensive. The company was keen to make the latest inventions available to the dental profession and from the beginning was advertising Vydon (a vinyl ester first marketed in 1933)¹ and Luxene (phenol formaldehyde, 1934) in the *British Dental Journal*. When Imperial Chemical Industries introduced Kallodent (acrylic) in 1935 the necessary injection-

moulding apparatus was acquired, and in August 1935 Mr Failes distributed 250 circulars informing the profession that work could be undertaken using this material. Unfortunately, this initiative only elicited two replies during the first month: Norfolk people were exercising their traditional resistance to change!

At the first Annual General Meeting of the Company, held on 31 December 1936, the chairman reported a net profit for the year of £123. The weekly wages paid to the staff at that time were: F. Failes, £4 14s. 7d.; H. Bowhill and G. Hayden, £3 10s.; J. Jenkinson, £1 10s. The two apprentices, L. Stone and J. Eglington received fifteen shillings and ten shillings. A Mrs Hill was paid eight shillings for cleaning. The younger apprentice, Eglington, was a source of worry to his employers and Mr Failes found it necessary to have a sharp word with the boy's father about the quality of his work. Stone completed his four-year apprenticeship in September and was rewarded with a weekly wage of thirty-five shillings, being a rise of ten shillings. Bad debts were a problem and it was necessary to take out a summons against Mr Elphick, a Watton dentist, who had made several unfulfilled promises to settle his account by monthly payments of ten pounds. In the search for new business Hayden undertook to visit Ipswich, Huntingdon, Kings Lynn and Northampton to canvass. Advertisements were placed in *Oral Topics*, *Dental Gazette* and *Mouth Mirror*.

The Company suffered a tragic loss on Boxing Day, 1937. Harry Bowhill and his young son were thrown from a roundabout at the Christmas Fair in Norwich. The boy escaped serious injury but the subsequent inquest on his father recorded that he died from a 'fractured skull and cerebral haemorrhage caused by an accidental fall from a roundabout.'² He was aged only thirty-five years. Within a month he had been replaced by A. Leamon at a wage of two pounds per week.

By 1939 the threat of war had become very real, and Lawrence Stone was called up for Military Service in July of that year. Raw materials increased in price by fifteen percent owing to 'War Charges' and there was a falling off of business leading to a downturn of £283 on the 1938 total. Stone was replaced by C. Woolnough, and a new apprentice, R. Hartt, was engaged for four years for whom a premium of ten pounds was paid. He, however, was only paid five shillings per week. As the war progressed, the loss of Malaya to the Japanese led to a shortage of rubber, the essential ingredient of vulcanite dentures. Acrylic bases were developed further, and in 1942 the Company was charging a minimum of four pounds for manufacturing a full set

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¹ John Osborne, *Acrylic Resin in Dentistry* (Oxford: Blackwell, 1943), pp. 11-13.

² *Eastern Daily Press*, 31 December 1937.

of dentures.

During the war Norwich suffered more than forty air attacks, the heaviest being the 'Baedeker' raids of 27/28 April and 29/30 April 1942.³ The house in All Saints' Green did not receive a direct hit but there were several near misses. An unexploded 1000 kg bomb was found in the Carlton Theatre on the opposite side of the road some days after the raids. Had it exploded, damage to the surgeries and laboratory would have been severe and casualties among the hundreds who had seen Robert Young in the film *Louisiana Purchase* at the cinema, oblivious of the danger in their midst, could have been horrific. On 27 June, Bond's store a few doors away from the practice premises was badly damaged by incendiaries and a 250 kg high explosive bomb hit a block of flats to the rear. This caused all the workshop windows to be blown in and the staff were faced the next day with not only clearing up the broken glass but trying to work with only a partial restoration of gas, electricity and water services. In spite of all the disruption and the men's lack of sleep owing to duties as Air Raid Wardens, sales were up by one hundred pounds during the year ending October 1943. The Ministry of Supply forbade the use of rubber for new dentures from October 1942, allowing only a small monthly quota for essential repairs.

At the first annual meeting of the Company following the end of the war, held on 29 September 1945, a trading loss was reported for the previous year. This was blamed on the higher purchases of gold stock not used up and on unprofitable time spent on experimenting with new plastic materials. Lawrence Stone returned to his workbench in March 1946, nearly seven years after being called up for Military Service. In accordance with recommendations by the National Joint Council, wages were increased as follows: Mr Failes, seven pounds; Mr Hayden £6 10s.; Messrs Leamon and Stone £5 10s. per week. The extra expenditure necessitated an increase in prices charged, but this did not lead to a falling off of work and 1946 was a profitable year.

The National Health Service was introduced in July 1948, and there was a decrease in the amount of work carried out during the preceding two months. No doubt patients were postponing having new dentures made until such time as treatment became free of charge. Miss Reeve resigned as secretary to the Company in January 1949, and was replaced by Mr Hayden whose wife was paid four pounds per month for clerical assistance. The NHS produced a rush of new work and 1949 and 1950 were very profitable years. The Company felt able to spend £158 2s. 6d. on repairs and redecoration. The gross sales for 1950 reached a record level of £5217, more than a thousand

pounds up on the previous year. However the chairman, in making his annual report, voiced a realistic word of caution:

In summary of the year's work I think we can congratulate ourselves on the success achieved. We do not, however, anticipate that this will be maintained as the National Health Service, having now been working for over eighteen months, the peak seems to have been reached as the volume of work towards the end of the year was not so great. A good deal of overtime was worked in the first half-year but had not been necessary in the second half.

The next decade was one of financial ups and downs ranging from modest profits to near disastrous loss. Mr Failes retired in September 1961. He had been chairman of the Company for twenty-five years since its formation, and was presented with a barometer by the workroom staff. Active in retirement, he achieved more than a hundred years of age.

This short account of the first twenty-five years of the East Anglian Dental Laboratory Ltd has described the activities of a small group of craftsmen who served the dental profession through two major upheavals: the Second World War and the introduction of the National Health Service. It has been mainly culled from the books of the Company and particularly from the minutes of its meetings, so carefully recorded by Miss Reeve and Mrs Hayden.

3 Joan Banger, *Norwich at War* (Norwich: Wensum Books, 1974), pp. 44, 62, 68-69.

TRANSACTIONS OF THE BRITISH SOCIETY FOR THE STUDY OF ORTHODONTICS: THE EARLY YEARS

G.S. Taylor*

The formation and events leading up to the foundation of the British Society for the Study of Orthodontics are well described in a paper published in 1968 by Leighton.¹ J.H. Badcock was elected as the first President and his Presidential Address, given at the first meeting on 22 January 1908 and subsequently published as the first paper in the Transactions, sets out the objectives of the Society.²

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.

He acknowledged that there was opposition to the formation of the Society on the grounds that it would be divisive to have a group whose main interest was Orthodontics. Badcock saw the BSSO meetings 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.

The original name of the Society, the British Society for the Study of Orthodontia, was carefully chosen to emphasise 'Study' and to avoid mention of treatment and endorsement of any particular school.

During the initial discussions about setting up the Society, the decision was made to keep a record of its activities. These were to be published monthly in the *Dental Record*, and bound for annual distribution to all members as the *Transactions of the British Society for the Study of Orthodontics*. It

was recognised that not only a record of the original contributions would be of value, but a record of the discussions, stimulated by the papers would also be beneficial. 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.

The *Transactions* were published annually between 1908 and 1970, with the exception of a few missed years during the First and Second World Wars. In this paper it is proposed to discuss the first nine volumes of the *Transactions* published between 1908 and 1920. This short paper looks at some of the presidential addresses and who those presidents were as a starting point. A new president was elected each year and it was customary for the president to give both an inaugural and valedictory address during his term of office.

In 1908 J.H. Badcock was President. His Address, dealing with the objectives of the Society has been mentioned above.² In that address he also predicted a great expansion of interest in orthodontia. 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. Badcock even predicted the appearance of specialist orthodontic practitioners.

He felt that the concept of ideal occlusion 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, urging members not to forget the large number of patients who could not afford expensive orthodontic treatment, extraction alone was the only course available for these people.

J.H. Badcock was a distinguished practitioner in Harley Street for over fifty years. He qualified in dentistry at the London School of Dental Surgery, later to become the Royal Dental Hospital, in 1887 and received his medical qualification three years later, having studied at Charing Cross Hospital. Prior to his time at the London School of Dental Surgery he had served articles with a general dental practitioner. His practice in Harley Street was renowned for its high standard of conservative dentistry and for his orthodontic work. During the First World War, like many orthodontists, he played a big part in the treatment of jaw injuries, an indication of his clinical versatility. His ingenuity in devising and constructing orthodontic appliances was renowned and for many years the Badcock screw and expansion plate were widely used.

Badcock, together with George Northcroft and Harold Chapman, was very influential in founding the BSSO and it was fitting that he should be the first President. He also occupied the Presidency of the British Dental Asso-

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¹ B.C. Leighton, 'The British Society for the Study of Orthodontics', *Brit. dent. J.*, 124(1968), 425-28.

² J.H. Badcock, 'Inaugural address - The study of orthodontia', *TBSSO*, 1(1908), 1-5.

ciation, the Odontological Section of the Royal Society of Medicine and of the Second International Orthodontic Congress, held in London in 1931.

The second President was George Northcroft who without fear of challenge must be regarded as the founding father of not only the BSSO but also the European Orthodontic Society. The idea leading to the formation of both BSSO and EOS was Northcroft's. He felt that orthodontics was such a special branch of dentistry, so little related to the others, that it needed its own societies.

The theme of his Presidential Address was 'Study'.³ Treatment must be based on the sure foundation of studies of both normal and abnormal development. The impact of extraction as part of orthodontic treatment was still contested and demanded research. 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.

On the subject of classification, Northcroft informed members that their Society was engaged on a new classification and hoped to publish further details in the near future. He appealed to members to collect and send records to the Society's museum, particularly 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.

George Northcroft, born in 1869 and dying in 1943, had an interesting and unusual start to his dental career. After leaving school he proceeded to the University of Michigan at Ann Arbor and obtained his DDS before returning to the London School of Dental Surgery for his LDS. Close contacts with colleagues in North America were maintained 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.

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. Acknowledged an expert in many aspects of dentistry, he also became involved in maxillofacial work during the War, but his main interest remained children's dentistry and in particular orthodontics. Retirement was postponed because of teaching staff shortages occasioned by the Second World War and he continued to work right until the time of his death, aged seventy-four.

The third President was James Sim Wallace. He was born near Glas-

gow and after school proceeded to Glasgow University. When he was twenty he obtained a BSc in biology and his MBChB at twenty-one. An MD followed at twenty-four, 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. Several years were spent as a ship's doctor before completing his dental studies at the National and Royal Dental Hospitals.

He went into practice in Kingston upon Thames in 1895 and later to a practice in Harley Street. Although in practice, he remained a scientist and gradually built up his theories for the prevention of dental disease. In 1900 he published *The Cause and Prevention of Decay in Teeth*. This book was 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 after 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.

Sim Wallace led a very active professional life. In 1923 he became lecturer in preventive dentistry at King's College. 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 bore the title 'Specialism in relation to the study of orthodontics'.⁴ He was originally one of those people worried that the formation of the BSSO would lead to a split in 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 excessive consideration of occlusion and regulation appliances, as orthodontic appliances were called at that time, would overshadow the scientific basis of the study of orthodontics.

William Rushton became President in 1911. In his Presidential Address he believed that orthodontics had passed from the empirical to the scientific

3 G. Northcroft, 'Presidential address - Aims and ideas', *TBSSO*, 2(1909), 1-4.

4 J. Sim Wallace, 'Presidential address - Specialism in relation to the study of orthodontics', *TBSSO*, 3(1910), 2-6.

stage.⁵ He pointed out that when he was a student, treatment to leave the teeth in a position of stable equilibrium was not even considered. The sole objective was to produce even front teeth and the resulting articulation was of secondary consideration.

William Rushton was born in 1864, the son of a professor at Queen's University, Cork. He came to London to study dentistry at the National Dental Hospital (the predecessor of University College Hospital Dental School). After a short interval elsewhere he set up practice in Harley Street and continued to practise there until his death aged seventy-six in 1940. Although many of his contemporaries went to America to study he did not, but he was stimulated by a visit of Angle to Dublin in 1897. He appreciated that the direction of Angle was the one to follow to ensure progress, but nevertheless he was not afraid to criticise Angle when he thought necessary. An incidence of this happened at the Sixth International Dental Congress, when held in London in 1914.

Rushton had an interest in dental journalism. He was for a time Assistant Editor of the *British Journal of Dental Science*, the forerunner of the *British Dental Journal*, and then for a longer period of the *Dental Record*. The Dental Manufacturing Company published the *Dental Record* and he was also Chairman of that company, demonstrating a flair for business. Rushton has the unique distinction of having a son, Martin, who eventually became a President of the BSSO and was a well-known member of staff at Guy's.

Harry Baldwin was elected as the next President in 1912. He reviewed the Society's progress over its first years and was pleased that there was no sign of the predicted split in dentistry.⁶ He confirmed that relations with the British Dental Association were harmonious. He described the title of the Society as being a model of 'seductive humility' and was pleased with the membership attracted so far. He made the interesting comment that 'work on a science and art of an orthodontic kind was a welcome relief from the monotony of endless filling and extraction of teeth.' Prevention he felt should be the Society's object, and already he thought that the number of bad cases of irregularity was getting less common. This he attributed to the early removal of postnasal stenosis, early and effective filling of teeth and better feeding by provision of food demanding a degree of mastication, thereby exercising the jaws.

Baldwin entered the practice, in Cavendish Square, founded by John Tomes and then carried on by his son, Sir Charles Tomes. In 1918 he, in

turn, was appointed Surgeon Dentist to the King and was knighted. In addition to his interest in orthodontics, Baldwin was an authority on restorative dentistry and was responsible for the chapters on crowns in Bennett's *Science and Practice of Dental Surgery*. He also gave his name to the so-called 'Baldwin's' technique.

M.F. Hopson succeeded him as President in 1913. Montagu F. Hopson was born in 1869, after school he was articled to a local dental surgeon, and just at the time he completed his instruction in practice Guy's Dental School was founded. He was the first student to be accepted, thus commenced an association which lasted for the rest of his life. He was a keen entomologist, a Fellow of the Royal Entomological and Linnean Societies. He is recorded as having had an extensive collection of lepidoptera.

He was at the staff at Guy's Hospital and described in his address the vetting procedure before patients were accepted for treatment.⁷ Children or parents often admitted that they would be unable to afford the time to attend regularly or they could not contribute towards the cost of treatment. The maximum charge for orthodontic treatment at Guy's at that time was five shillings. He, too, was critical of the rigid non-extraction school, which by then was very vocal in North America and had its followers in Britain. He realised that extractions could alleviate the worst effects of malocclusion in many cases.

Norman Bennett became President in 1914. His theme was the role of the orthodontist in medical treatment.⁸ He opened by referring to current health matters then being discussed. These were the intriguingly named Royal Commission on Physical Degeneration, the recently passed National Insurance Act and the Royal Commission on Venereal disease. The first named Royal Commission came about because of the shock felt in the nation's general health at the time of the Boer War, when recruits to the army were found to be very unfit. The same anxieties applied to dental as well as general health.

In his Address Bennett felt that physical qualities depended upon both inherited characteristics and the environment, but he considered that environmental factors could be speedily corrected and even inherited factors minimised. Bennett envisaged control of caries thus avoiding the need for enforced extraction, diet could be improved leading to better functional jaw development. Early recognition and correction of post-nasal stenosis would reduce another important cause of jaw abnormality. All congenital problems

5 W. Rushton, 'Inaugural address', *TBSSO*, 4(1911), 2-4.

6 H. Baldwin, 'Inaugural address', *TBSSO*, 5(1912), 2-4.

7 M.F. Hopson, 'Inaugural address', *TBSSO*, 6(1913), 1-4.

8 N. Bennett, 'Inaugural address', *TBSSO*, 7(1914), 6-10.

could be treated earlier and their effect lessened.

Bennett's professional training is interesting. He attended St John's College, Cambridge, at which he read for his Natural Science Tripos, but he also spent five hours each day in the workroom of a local dentist. Having obtained his BSc from Cambridge, he then proceeded to receive his medical and dental education at St George's Hospital and the London School of Dental Surgery.

Bennett held many appointments during his lifetime. He was Consultant Dental Surgeon at St George's Hospital, Director and lecturer in Orthodontics at the Royal Dental Hospital. He was instrumental in the setting up Dental Corps in all three services. He played a big part in the discussions leading to the passing of the Dentists Act of 1921. He edited and wrote a large part of the *Science and Practice of Dental Surgery*.

He was particularly interested in movements of the mandibular condyle during mastication. 'Bennett movement' is named after him. His mathematician brother, Geoffrey Bennett, a Fellow of the Royal Society, collaborated in research and they worked out the mathematics of the temporomandibular joint.

Bennett had many outside interests and he was a skilled Bridge player, he was responsible for the so-called 'Norman Convention' in that game.

1915 saw W.F. Mellersh elected as President. In his Address he asked one very important question, is it too much to hope that the time may come when a postgraduate school for the study of orthodontics maybe established and staffed by those competent to teach?⁹

J.E. Spiller was elected as next President in 1916. He qualified in 1901 and started to practice in Wimbledon, continuing to practice there for more than fifty years. During the period we are considering Spiller was second only to Northcroft in the number of presentations to the Society, and to be elected President in his mid-thirties must be an indication of the high esteem of his peers. He trained at Guy's and also worked there as a demonstrator in dental practice and histology and pathology.

Spiller, like Bennett, in his Address was optimistic that preventive methods could drastically reduce the need for orthodontic treatment, and of those cases currently requiring treatment a large proportion could be eliminated by correcting methods of feeding and breathing.¹⁰ Hand-in-hand with prevention must be better treatment, and this would also be more effective if started earlier.

George Campion, is the last President from the early phase dealt with in

this paper. Campion, son of a well-known Manchester dentist, travelled to London to qualify at the Dental Hospital of London in 1885. He spent his professional career working in Manchester, in both orthodontic practice and as Consulting Dental Surgeon at the Manchester Dental Hospital. He was also lecturer in orthodontics at the Victoria University, Manchester.

Campion brought a scientific approach to orthodontic problems, and he was a prolific lecturer and writer. Together with C.H. Preston, he contributed a chapter on the 'Mechanical Stresses of Mastication' to both editions of Bennett's *Science and Practice of Dental Surgery*. He collaborated with Sir Arthur Keith on research into jaw growth and their work was highly regarded in its day.

In the field of philosophy he published several works, one being *Elements in Thought and Emotion* in 1923. He undertook research with Sir Grafton Elliott Smith, an anthropologist, and Professor Stopford, also Professor of Experimental Neurology at Manchester. The results of this work were published as *Thalamo-cortical Circulation, The Neural Substrate of Reflective Thought and The Neural Basis of Thought*.

His Presidential Address is titled 'A study in six dimensions'.¹¹ The fourth dimension dealt with the relationship of the normal and the abnormal arches to the facial configuration. He illustrated so-called facial harmony and disharmony with diagrams incorporating various facial planes. He also described a series of measurements, made on patients at different ages. Results were presented in a series of tables giving the number of cases, standard deviations, maximum and minimum and mean increases in size. This is the first paper in the *Transactions* to use elementary statistics, and is reminiscent of papers from the early fifties as cephalometrics was being introduced into orthodontic literature.

Many other interesting papers were given in this period and details of a few follow.

The turn of the new century was a period of prolific discovery, and it is interesting to see how quick information was disseminated and incorporated into practice. In the 1909 volume there are two papers given by C.A. Clark¹² and I. Bruce¹³ on the use of x-rays in orthodontics. Roentgen first described the use of x-rays in medicine in 1895, and x-rays were rapidly introduced into

9 F.Mellersh, 'Presidents inaugural address', *TBSSO*, 8(1915), 11-13.

10 J.E. Spiller, 'Orthodontics in peace and war', *TBSSO*, 9(1916-21), 5-6.

11 G.G.Campion, 'Presidential Address - Orthodontics, a study in six dimensions', *TBSSO*, 9(1916-21), 69-78.

12 C.A.Clark, 'Some x-ray photographs', *TBSSO*, 2(1909), 24-25.

13 I.Bruce, 'On the use of x-rays in dentistry', *TBSSO*, 2(1909), 41-45.

dentistry for diagnostic purposes.

Hobson, whom I mentioned earlier, presented a very interesting paper called 'A review of some modern theories of variation and heredity and some suggestions as to their applications to the study of orthodontia'.¹⁴ In his opening comments he made the point that his paper was being given in 1909, fifty years after the publication of papers in 1859 by Darwin and Wallace on the Theory of Evolution. He goes on to inform members that a dentist, a Thomas Bell, chaired that historic meeting of the Linnean Society. In addition to reviewing Darwin's Theory of Natural Selection, he also describes the work of Mendel. Although Mendel published his findings in the 1860s, it remained in obscurity until rediscovered by de Vries and brought to light in 1900.

1910 saw a paper by Thew, 'Some impressions of orthodontics during a short tour of America'.¹⁵ This is an interesting comparison of orthodontic practice in Britain and the United States. Remember quite a few members of the BSSO would have had American qualifications or experience. He comments that there are a number of practices already exclusively devoted to Orthodontics in large cities in the USA. Although he met a divergence of opinions and teaching he says standards were very high.

He felt factors for success were more favourable in the USA, and he lists these factors as children's availability (no boarding schools!), patient motivation, a much higher proportion of males receiving treatment and many of the patients were aged between twenty to thirty years. He concluded however, 'I came back to the old country convinced that hampered as she is by tradition and hemmed in by convention she is still capable of holding her own with the younger nation across the water.'

One paper worthy of mention is that given by Rushton in 1911, entitled 'Mouth breathing and facial contour: with a suggested classification'.¹⁶ This paper is long and contains much information. It is particularly important in that he has collected profile photographs of patients, selected landmarks on these photographs and drawn connecting lines to create rectangles and then measured the angles between the different planes. Using photographs rather than x-rays this paper is again reminiscent of early cephalometrics papers of the late forties and fifties.

14 M.F. Hopson, 'A Review of some modern theories of variation and heredity and some suggestions as to their application to the study of orthodontia', *TBSSO*, 2(1909), 70-81.

15 W. Thew, 'Some impressions of orthodontics during a short tour of America', *TBSSO*, 3(1910), 33-41.

16 W. Rushton, 'Mouth breathing and facial contour: with a suggested classification', *TBSSO*, 4(1911), 4-16.

Bull produced an excellent paper, 'Teaching of orthodontics', in 1915.¹⁷ This is essentially about undergraduate education. He identified the current problems and looked at the impact of teaching from patients, parents, students and the teacher's point of view. He suggested that exclusive orthodontic teaching by specialists be introduced as soon as possible.

B.B. Samuel, also in 1915, gave a short paper called, 'Suggestions for the formation of a London Orthodontic Centre'.¹⁸ He identified two problems, the need for a treatment facility for less well off children and lack of post-graduate training. The establishment of a centre in London would meet both needs. The Forsyth Institute in Boston is cited as a role model.

Early on it was stated that anybody, not just dentists, who was interested in orthodontics and related topics, would be welcome at the Society meetings. During the period being dealt with, seven non-dental speakers addressed the Society and their contributions are recorded in the *Transactions*. Three Ear, Nose and Throat surgeons read papers. The ENT involvement is perhaps not surprising when it is considered how important postnasal stenosis was thought to be in the causation of malocclusion. T.B. Layton was an ENT surgeon who investigated contracted arches. His paper is called 'Twenty-seven cases of mouth breathing, studied in relation to contraction of the dental arches'.¹⁹ Of his twenty-seven patients, three showed pronounced contraction and ten showed moderate contraction. He reviewed the literature and together with his findings concluded that the connection between mouth breathing, arch contraction and nasal obstruction was an opinion with little or no evidence to support it.

Reading the *Transactions* for this period certainly suggests that at the outset people were quite clear of the role nasal stenosis played in the cause of malocclusion, but by the end of this period doubt was creeping in. Sir Arbuthnot Lane, a very eminent London surgeon addressed the Society in 1914 on 'The mechanics of some of the bones of the face'.²⁰ He stated he was still a firm believer that free passage of air through the nasal cavities was important for normal jaw growth. He used his belief in the role of function in controlling development to explain and justify his techniques for early surgery

17 F.B. Bull, 'Teaching of orthodontics', *TBSSO*, 8(1915), 26-35.

18 B.B. Samuel, 'Suggestions for the formation of a London Orthodontic Centre', *TBSSO*, 9(1916-21), 17-21.

19 T.B. Layton, 'Twenty-seven cases of mouth breathing, studied in relation to contraction of the dental arches', *TBSSO*, 7(1914), 34-45.

20 A. Lane, 'The mechanics of some of the bones of the face', *TBSSO*, 7(1914), 47-56.

in the management of cleft lip and palate.

Sir Arthur Keith, long-time Professor of Anatomy at the Royal College of Surgeons, addressed the Society in 1913, on 'Certain factors in tooth eruption'.²¹ He illustrated normal growth patterns of the skull and showed what happens in various congenital anomalies. He spoke about the control of bone growth by so-called internal secretions, and he called these substances hormones.

Mrs M. Mellanby, later known as Lady Mellanby, gave a very interesting paper called 'Experimental evidence illustrating the influence of a special dietetic factor on the development of teeth and jaws'.²² In that paper Lady Mellanby described her extensive research on the effect of diet on oral and dental tissues. At the time she gave her paper, in 1919, three substances of so-called special dietetic factors, called vitamins, were known.

The last non-dental speaker was Dudley Buxton, an anthropologist. The title of his paper, 'The teeth and jaws of savage man',²³ was so politically incorrect it would certainly not be acceptable today. He describes cranial and dental features of various ethnic groups and relates these to their diet.

The *Transactions* also contain the Reports of the Annual General Meetings but they provide surprisingly little detail of the discussion likely to have occurred. One item discussed was the original title of the Society. In the report of 1908, that is at the end of the first year, a proposal was put forward to change the name of the Society.²⁴ The original name was the British Society for the Study of Orthodontia. It was pointed out that the word orthodontia was a mixture of two Greek words with a Latin ending. The Annual General Report of 1909 agreed that the new name of the Society would be the British Society for the Study of Orthodontics.²⁵

The Great War had an important impact upon Society activities, leading to a virtual cessation of activities between 1916 and October 1919. At the Annual General Meeting in 1919, the Secretary reported that sixteen members had seen active service, two members having been killed and H.E. Marsh, later to become a President of the Society, had been awarded the Military

Cross at the Battle of Ypres.²⁶

Membership details for the period can be obtained from both the Secretaries' Reports and from Membership Lists published in the *Transactions* after 1911. In the Annual Report for 1908 the Secretary informs us that there were forty-two founder members and during the year a further twenty-eight joined. There were three resignations.²⁴ No record exists for the membership for 1910, but in the 1911 *Transactions* eighty-five members are listed.²⁷ One member is designated as a corresponding member, and his address is given as Brussels, Belgium. Eighteen of the addresses given are outwith London, and it is interesting that the only cities that had dental schools and are represented in the list are Dublin, Birmingham, Manchester and Bristol. The overwhelming number of the London addresses were in the West End. In the 1912 *Transactions* the membership is put at ninety-two, but only eighty-nine names appear on the list.²⁸ One member is described as an Honorary Member, Dr Bogue of New York. Membership gradually increased, rising to 104 in 1914,²⁹ but in that year the non-London membership fell to twenty. There was a slight fall in numbers as a result of the War, to record ninety-four in 1915.³⁰ Membership rose, however, to 111 in 1921.³¹ In that year there were two corresponding members from South Africa, and one each from Belgium, Switzerland and Italy. Sir Arthur Keith was now an Honorary Member. Three members had addresses in Ireland; but there were still no members from Scotland or Wales. No ladies were members at this time.

The *Transactions of the British Society for the Study of Orthodontics* provide a rich source of information on the development of the orthodontic speciality in the United Kingdom from 1908 until publication ceased in 1970. It is hoped to extend this investigation beyond the early years.

21 A. Keith, 'Certain factors in tooth eruption', *TBSSO*, 6(1913), 45-55.

22 M. Mellanby, 'Experimental evidence illustrating the influence of a special dietetic factor on the development of the teeth and jaws', *TBSSO*, 9(1916), 32-49.

23 L.H. Dudley Buxton, 'The teeth and jaws of savage man', *TBSSO*, 9(1916-1921), 79-88.

24 'Reports of annual general meeting 1908', *TBSSO*, 1(1908), 1-3.

25 'Reports of annual general meeting 1909', *TBSSO*, 2(1909), 83-88.

26 'Reports of annual general meeting 1916', *TBSSO*, 9(1916-1921), 50-53.

27 'Reports of annual general meeting 1911', *TBSSO*, 4(1911), 73-76.

28 'Reports of annual general meeting 1912', *TBSSO*, 5(1912), 58-60.

29 'Reports of annual general meeting 1914', *TBSSO*, 7(1914), 57-60.

30 'Reports of annual general meeting 1915', *TBSSO*, 8(1915), 80-82.

31 'Reports of annual general meeting 1921', *TBSSO*, 9(1916-21), 84-88.

DOC. HOLIDAY: GUN TOTIN' DENTIST OF THE WILD WEST

Rufus M. Ross*

A number of biographies have been written on Doc. Holliday, most of which have suffered from lack of knowledge, overactive imagination or deliberate fabrications. The account written by a cousin, Karen Holliday Tanner, based on the family memorabilia and history, is reckoned to be the most authentic account of Doc. Holliday's life. He was born at Griffin, Georgia on 15 August 1851.¹ This year therefore marks the one hundred and fiftieth anniversary of his birth (the sesquicentenary). John Henry was born with a cleft palate and harelip, a defect that was to recur several times in future Holliday generations. His uncle was Dr Henry Holliday, a respected physician, and his wife's cousin was Crawford Williamson Long. Long was the first surgeon to use ether as an anaesthetic in 1842, but unfortunately did not publish his findings until 1849. When John Henry was eight weeks old Drs Holliday and Crawford Long corrected the defects successfully, although several years of speech therapy followed. Nevertheless, he was left with a slight speech impediment and some scarring of his lip, a blemish which would be well concealed in future years by his moustache.

Holliday was ten years old when the American Civil War broke out in April 1861. His family, staunch supporters of the Confederate cause, suffered considerable hardship as a result of the defeat of the Southern States, nevertheless money was found to pay his five dollar matriculation and one hundred dollar tuition fees to allow him to commence his dental training on Monday, 3 October 1870 at the Pennsylvania College of Dental Surgery in Philadelphia. The course started with a five-month period of instruction consisting, of a two-hour lecture and demonstration in the morning and another similar pro-

gramme in the afternoon.² His course work included chemistry, mechanical dentistry and metallurgy, dental pathology, therapeutics, dental histology and operative dentistry, physiology, microscopic anatomy plus anatomy and surgery.

Figure 1 John Henry Holiday, DDS, on the occasion of his 1 March 1872 graduation from the Pennsylvania College of Dental Surgery. He was unaware that soon fate would send him West and destiny would turn him into a legend. Photo by O.B. DeMorat, 2 South Eighth Street, Philadelphia.



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¹ Karen Holliday Tanner, *Doc. Holiday, A Family Portrait* (Oklahoma: University of Oklahoma Press, 1998).

² Pennsylvania College of Dental Surgery, *Annual Announcements, 1871-72*.

On Saturdays, Holliday took part in clinical work, assisted by demonstrators in the college's two thousand square feet operating room containing twenty-eight chairs. Students were expected to provide their own instruments and 'keep them in perfect order.' Candidates for graduation had to be twenty-one years of age and have studied under a private preceptor (qualified dental supervisor) for at least two years, including his course of instruction at the college.

Attendances on two full courses of lectures in the institution were required but satisfactory evidence of having attended one full course in 'any respectable dental or medical school' would be considered equivalent to the first course of lectures in the college.

Satisfactory evidence of having been in practice for five years inclusive of the term of pupilage, would be considered equivalent to the first course of lectures. During his first year, Holliday attended to about thirty-nine patients, completed thirty-two fillings and extracted thirty-eight teeth. Among the many operations with which he is credited was the construction and fitting of a bridge and making a swaged gold crown for a six-year-old girl. This crown was reputed to have lasted throughout the patient's life until she died in 1967 at the age of 102.

In March 1871 Holliday returned to his home town, now renamed Valdosta, and, as required by the College, undertook clinical work, for a period of eight months under the supervision of his preceptor, Dr Lucian Frederick Frink, who was a friend of his father. Holliday worked with Dr Frink until October of 1871, returning to college to resume his studies on 6 November for an additional twenty-two weeks of instruction and the preparation of a thesis entitled 'Diseases of the Teeth'.

His final presentation was the provision of all necessary treatment for a patient and the construction and fitting of an artificial denture, presenting the patient before his Professor of Mechanical Dentistry. Having satisfied the requirements of the College, he graduated on Friday, 1 March 1872 with the degree of DDS.

The total length of the course was approximately seventeen months. For its time this was a fairly comprehensive training for dentistry, and young Holliday seems to have been a bright and skilful student.

After graduating John Henry moved to Atlanta, and on 26 July 1872 was in practice with Dr Arthur C. Ford.³ It was soon after Christmas 1872 that the newly-qualified dentist began losing weight and developed a nagging cough and, six months later, in the summer of 1873, discovered that he had

contracted pulmonary tuberculosis, a disease which had presumably killed his mother, Alice. He was advised to adopt a regime which included a climate of warm, dry air, a nutritious diet and prolonged rest, so it was decided that he should seek warmer climes, and in the third week of September 1873 he arrived in Dallas.

At this time he became a prominent member of a temperance organisation, ironic in view of his subsequent history.

Along with his partner, Dr Seegar, they entered for an Annual Fair, winning three premium prizes and five dollars for each of their displays: the best set of teeth in gold, the best in vulcanite and the best set of dentures.⁴

By the end of the year Dallas's rapid expansion as a railroad city came to an end due to a decision not to extend the railroad out of Dallas, resulting in a decline in the growth of the population. Allied to his ailment, John Henry found it increasingly difficult to maintain a successful practice. Consequently he found that he had a considerable amount of leisure time, and it was not long before he discovered the St Charles saloon on Main Street with its gaming tables.

He was also a regular at the Alhambra saloon and Johnny Thompson's Varieties Bella Union, headquarters for the majority of Dallas's gamblers who welcomed the newcomer with open arms. They were not aware that the young dentist had been well schooled by the Holliday's Negro slave, Sophie, in the finer points of 'skinning' a gambling game, very popular among the slaves and similar to faro at which he had become skilled.

With his mathematical ability, he soon discovered his prowess as a gambler, poker and faro player, and before long was able to provide himself with a good supplemental income and rapidly developed a reputation as a respected gambler in town. He was fast becoming a professional gambler, 'a man who made money by talent and wit from the greed of others'⁵ - he was also starting to drink heavily.

Bat Masterson, City Marshal of Dodge City, was reported as saying that gambling was not only the principal and best paying industry in Dallas, but was also the most respectable - 'even more so than dentistry or medicine.'

In March 1874 the partnership with Dr Seegar was dissolved and John Henry set up on his own, but gambling and drinking became his main occupation and inevitably he appeared before the local court following one of the periodic sweeps of Dallas's gambling dens.

Soon after this he sold up his practice and moved to Denison, Texas,

4 *Ibid.*, p. 86.

5 *Ibid.*, p. 91.

described as the lowest of the low with respect to bawdy houses, variety shows and gambling joints. Although residing in Denison, he made frequent trips to Dallas to visit old friends and gamble.

He was in Dallas to bring in the New Year and was involved in a fracas with a saloon keeper called Charlie (Champagne) Austin. The local newspaper reported the event thus:⁶

Dr Holliday and Mr [Charles W] Austin, a saloon keeper relieved the monotony of the noise of fire-crackers by taking a couple of shots at each other yesterday afternoon.

The cheerful note of the peaceful six shooter is heard once more among us. Both shooters were arrested.

Later he was charged with assault to murder but was found not guilty.

Doc. left Denison on the El Paso stage heading for Denver but stopped off in Fort Griffin, a town with two thousand transient hunters and cowboys. Their presence and their money attracted drifters, gamblers and the ubiquitous prostitutes. The settlement had the reputation of being the wildest community on the Texas frontier.

Once again John Henry found himself in a scrape with the law, having been charged with 'gambling in a house selling spirituous liquors.'⁷ Anxious to avoid further trouble he moved on without clearing up this minor matter. His lifestyle in the past couple of years had not been conducive to recuperation, and he still had his tubercular cough.

In the summer of 1875 he arrived in Denver using his uncle's name of Tom Mackey, and was soon working as a dealer at the faro table in the Theatre Comique. The Theatre featured vaudeville acts and a saloon as well as gaming tables.

Shortly after his arrival the news spread of a gold strike in the Black Hills in Dakota, and soon Denver was emptied as the stampede to Cheyenne gathered momentum; the town was the point of departure for the gold fields, resulting in the opening of myriads of saloons and gambling halls. Gamblers and miners poured in from the fading mining towns to a growing, bustling new centre.

The news prompted the Doc. to head for the new Mecca of gambling, but soon moved on with the recognised gambling circuit to Deadwood where he spent the winter of 1876-77.

6 *Ibid.*, p. 95.

7 *Ibid.*, p. 97.

After a series of confrontations with old adversaries whom he had antagonised at the gaming tables, Doc. was involved in a shooting incident in Dallas with gambler Henry Kahn. Both men were arrested and fined but later that day they met again and renewed their quarrel. Kahn became violent and fired at Doc. wounding him.

The *Dallas Weekly Herald* of 7 July 1877 carried the story that the Doc. had been killed in a gun battle, a report which alarmed his family until it was proved to be untrue. Although the wound had been serious it had not proved fatal, and after convalescence he moved on to Fort Griffin.

Not uncommon in the West, John M. Larn, Sheriff of Fort Griffin, had been described as an outlaw, a cow thief and a killer. Along with his unofficial deputy, he had co-operated with a band of vigilantes. Their manner of cleaning up the countryside was by shortcutting the law process with numerous 'necktie parties' (hangings). Eventually the Sheriff and his henchmen became leaders of the vigilantes, while stealing cattle and horses on the side.

Later in 1877, Larn resigned as Sheriff to take up duties as a cattle inspector for the Army and full-time cattle rustler. The cattle men took over the functions of the vigilantes and, wearing white sheets, speeded up the lynchings. Naturally, in this climate, Doc. kept a low profile.

Kate Elder, known as 'Big Nose', came into his life in Fort Griffin, where she had arrived after a somewhat dissolute and nefarious lifestyle although only twenty-six years old.

At sixteen she had stowed away on a Mississippi riverboat travelling to St Louis, where she was befriended by one Silas Melvin and probably shared his home and his bed. Kate supported herself by assuming a lifestyle which was in direct contrast to her Catholic upbringing. Before meeting the Doc. she had been arrested and fined for working in a 'sporting house' run by Mrs (James) Earp in Wichita. She came to Fort Griffin via Dodge City, where she had worked in a dance hall.

They soon established a rapport, living together for the remainder of the Doc.'s life. There is no evidence that they were ever married.

Around this time, according to Kate, Doc. was still practising dentistry from a hotel room in Fort Griffin, but gambling was still his foremost activity and it was while playing poker with a local resident, Ed Bailey, that an argument ensued when Bailey was caught examining the pack of discards, an illegal action. According to Doc., Bailey was about to pull a gun on him so he got in first, pulled out his knife and caught him in the ribs.

Unsure of Doc.'s claim of self-defence, the town marshal placed him under house arrest in his room at the Planter's Hotel. Meanwhile a mob of vigilantes had formed outside and, fuelled with drink, were clamouring for his blood. Kate recognised the danger and set fire to a nearby shed as a diversion

and, while the crowd busied themselves putting out the fire, she brought a horse round to the back of the building and then, pulling out a six shooter on the surprised marshal, freed Doc. and escaped to spend the night hiding in the outskirts of the town.

Early in 1878 the pair made their way to Dodge City, where by then over 250,000 head of cattle were arriving accompanied by over a thousand Texan cowboys eager to spend their accumulating wages on wine, women and gambling.

Having established themselves, Doc. once again prepared to practise dentistry; apparently the town was very much in need of his services. He practised during the day from Dodge House, which also held dances and had gained local notoriety as a gambling den. Doc. also frequented many gaming houses, and it was in one of these that he met Ed, Bat and Jim Masterton. Ed had been City Marshal, but was gunned down in November of 1878. Shortly after this murder, Wyatt and Mattie Earp arrived in town. The former was appointed Deputy to the new Sheriff.

Because of the poor wages which lawmen received they frequently took jobs in the gaming houses, and they were often seen in association with the Doc. welcoming the cowboys just off the trail, ready to help them empty their well-filled pockets at the gaming tables. He seemed to avoid any scrapes with law during this period, in fact his close association with the law officers was commented on by a trail cowboy from Texas, who said that the Doc. was one of a roster of peace officials in Dodge City along with Ed, Jim and Bat Masterton and Wyatt Earp.

In the summer of 1878, the *Dodge City Times* carried the following announcement:

DENTISTRY. J H Holliday, Dentist, very respectfully offers his professional services to the citizens of Dodge City and surrounding country during the summer. Office at Room No. 24, Dodge House. Where satisfaction is not given money will be refunded.

It was in Dodge that Doc. saved Wyatt Earp's life when surrounded by a band of desperadoes, one of them pulled a gun on the Marshall behind his back. According to Wyatt's own words, the Doc. yelled 'Look out Wyatt!' and simultaneously drew his gun and shot the intended assassin before the latter could fire.

In the fall of 1878, John Henry's health began to deteriorate and he and Kate, travelling as Dr and Mrs John H. Holliday, arrived in Las Vegas, where the Doc. once again opened a dental practice. Business proved slow, as the region was experiencing its coldest winter for years, and to add to his troubles the Legislature passed a law prohibiting gambling. As a result of his activi-

ties, Doc. found himself before the County Court Judge on a charge of keeping a gaming table and fined twenty-five dollars.

Figure 2 Wyatt Earp. Craig Fouts Photo Collection.



As a consequence of the unseasonable weather his condition had not improved, neither had his dental practice; the new anti-gambling law was also making life difficult, so once again he was on the move – back to Dodge City.

No sooner had he arrived than he was off, as part of a well-armed posse to take part in the 'Railway Wars' between two rival companies, the Atchison, Topeka and Santa Fe and the Denver and Rio Grande, for the right to run the expanding railway into Las Vegas.

Ownership of the land was resolved by peaceful means, much to the disappointment of the participants who had expected a good fight. When the tracks did reach the town, the citizens were astonished to find that the town had been bypassed by one mile. As a result, a town of tents and hastily thrown up buildings was erected alongside the railway by the hungry newcomers anxious to cash in on this new commercial centre. It was named East Las Vegas, and was soon crowded with eating houses, saloons and gambling dens. Naturally the women of easy virtue were also in attendance to cater for all the needs of the newcomers. Street brawls and killings were common, and generally averaged about one a month. The town was booming, and Doc. set himself up in the Holliday Saloon – a gambling joint – along with a partner, Jordan J. Webb. He was soon in trouble once more, facing charges of 'keeping a gaming table' and a second charge of carrying a deadly weapon.

In 1879 Wyatt Earp arrived in Las Vegas and persuaded Doc. and Kate, who had now rejoined him, to come with him to Tombstone, Arizona, where there had been a new strike; the new boom town beckoned, but while still in Vegas he met up with an old antagonist, Charlie White, whom the Doc. had thrown out of a gaming salon for cheating when he had been dealing.

On seeing Doc. he drew his gun and fired, missing his target, but just as quick Doc. returned the fire and dropped his assailant. He thought he had killed him, but luckily the bullet had only grazed him. After that incident Doc. left Las Vegas and headed for Tombstone, Arizona, this time without Kate, and was soon investing in several business ventures with the Earp brothers. But it was not long before he was involved in another shooting, which resulted in his appearance before Justice James Reilly on a charge of assault with a deadly weapon with intent to kill.

As none of the prosecution witnesses appeared this charge was dismissed, and Doc. pleaded guilty to the lesser charge of assault and battery and was fined twenty dollars. His victim, who had initiated the attack, escaped with a severe gunshot wound to his hand.

On the night of 15 March 1881 the Arizona Mail stagecoach, carrying eighty thousand dollars in silver bullion, was held up. Eli 'Bud' Philpot, who was riding shotgun, and a passenger were killed, the driver was able to thwart

the robbery with his return fire and regained control of the team of horses which had bolted when the firing started.

As a friend of Doc.'s was named in the hold-up, a rumour soon swept the town that he was also implicated. One of the robbers, Luther King, who had confessed to his part in the robbery, was held in custody, and it became clear that in order to clear Holliday's name, the rest of the gang named by King would have to be caught. The latter, under the less than watchful eye of the Under Sheriff (a crony of Sheriff Behan, about whom more later), was also editor of the *Tombstone Nugget*.

In an article he stated that the escaped prisoner was an important witness against Doc. Holliday, and that the escape was a well-planned job by outsiders. A follow-up item in the *Arizona Weekly Star* reported that a well-known personality, alleged to be Holliday, was in Tombstone and had been shadowed ever since his return from an out of town visit at the time of the robbery.

It was evident that Sheriff Behan and his allies were trying to implicate Holliday in the double killing as a diversionary tactic to draw attention away from themselves. They had close associations with the criminal elements and, in addition, were also influenced by enemies of the Doc.'s and the Earps.

Behan was also jealous of the attentions being paid by his girlfriend towards Wyatt Earp. Charges brought by Behan were dismissed but things looked black for Holliday when Kate, in a drunken state engineered by Behan, signed an affidavit stating that Doc. had admitted to her that he had committed the stage coach murders. Doc. was arrested by Behan on a murder charge, but subsequently Kate, who had regretted her actions, no doubt as a result of a quarrel with Doc., repudiated her statement and the charge was dismissed. Meanwhile two of the gangsters named in the hold-up were killed in a gun-battle leaving one, Jim Crane, able to clear Doc.'s name.

In a subsequent encounter, Holliday was involved in a gun battle with Crane's gang in which the latter was killed, ending Doc.'s hopes of proving his innocence in the stagecoach murders. Warren Earp was wounded in the fight, as was Doc. Holliday who was hit in the leg and walked with a stick for some time afterwards.

There are many versions of the gunfight at the OK Corral, mostly exaggerated, but the account compiled by Karen Holliday Tanner would appear to be nearest to the truth.

A short account of the background and the politics of Arizona illustrates some of the causes of the deep-seated enmity towards Doc. Holliday and the Earps.

The Clanton Gang – Ike Clanton and his brother Billy, Thomas and Frank McLowry (collectively known as 'the cowboys') – were the antagonists

in the gunfight with Wyatt Earp, his brothers, Virgil and Morgan, and Doc. Holliday. Wyatt had been a Deputy United States Marshall, but resigned that position prior to the shooting. His brother Virgil was Town Marshall of Tombstone. There had been a long-standing hostility and numerous threats from the Clantons to kill Doc. Holliday and also the Earps, who continuously frustrated their unlawful activities. A word about John Behan, Sheriff of Tombstone, who played a crucial part in the shoot-out: Behan, who was part of the Democrat machine, had a finger in every crooked deal and was in league with rustlers, hijackers, murderers and outlaws.

He and Wyatt became enemies after Behan reneged on promises to make him his deputy. Instead he appointed Frank Stillwell, the region's champion stage robber. In these days the Sheriff was nourished on fees and patronage, and was also the tax collector, and even got a cut from property transactions as well as from about everything else that went on – the potential 'take' was big.

It was a well-known fact that Behan and his deputies protected the rustlers from the consequences of their law-breaking. Their friendly co-operation included tipping the rustlers off that the 'heat' was on, seeing to it that they were 'heeled' (armed) after they had been disarmed and even springing them from jail once they had been arrested.

One of Behan's deputies was the publisher of the *Tombstone Nugget*, the newspaper of the county political ring and the defender of the rustlers and all their works.

Tombstone's protection racket was politically directed – running directly from the Capital down, through an efficient and dependable county organisation, to an outlaw band that operated across the Mexican border.

Unfortunately for this organisation, the Earp brothers, controlling Tombstone, frustrated the law-breakers at every turn and thus became their enemy. As an adopted member of the Earp's family, Doc. Holliday also became involved.

The OK Corral was a livery stable with open pens for horses. On two sides were buildings, one, the studio of Arizona's pioneer photographer, C.S. Fly, who also owned a boarding house, and on the other a mineral assayer's office. It was against the wall of the latter that the Clantons, the McLowrys and Billy Claiborne, another rustler and killer, took their stand on Wednesday, 28 October 1881.

Doc. Holliday, Virgil, Wyatt and Morgan Earp met at Hafford's Corner saloon at the junction of Forth and Allen Streets in Tombstone. According to an eye-witness they were an imposing group, all around six feet tall and attired in dark suits and coats. Reuben Coleman, a local miner, approached the group with the news that he had just seen Ike and Billy Clanton with Frank

and Tom McLowry at the OK Corral.

They were armed and obviously looking for trouble. Coleman had suggested to Sheriff Behan, which was apparently ignored, that he should disarm the troublesome group before anyone got hurt, and made the same suggestion to Marshal Virgil Earp.

Virgil, in an apparent effort to convey an air of authority, borrowed Doc.'s cane, and Doc. carried Virgil's shotgun.

The Marshal, accompanied by his brothers and Doc., who had all been appointed deputies, moved to disarm the Clantons and the McLowrys knowing full well that they would not give up their arms peacefully.

As they turned into Fremont Street they saw that their quarry had been joined by Billy Claiborne, the quintet were apparently waiting outside a boarding house run by Fly where the Doc. had been staying.

Unaware that he had already left, they were hoping to catch him by surprise as he emerged. Marshal Virgil Earp called out to the gang, 'Throw up your hands.' Immediately two shots were heard. It is not known for certain who fired the first shot, but it was most probably Wyatt Earp, hitting Frank McLowry in the stomach. During the next twenty to thirty seconds, as the shooting became general, Billy Clanton was struck by several bullets, and at this point Doc. fired his shotgun hitting Tom McLowry who staggered several yards down Fremont Street and fell dead.

Morgan Earp was hit in the right shoulder, while his brother Virgil was wounded in the leg. At this point Doc. threw away the shotgun, and started firing with his pistol at the wounded Frank McLowry only about twelve feet in front of him.

Doc. was hit in the holster and Virgil Earp and McLowry fell, whilst Frank McLowry was in his final death throes from wounds in the head and abdomen.

Within minutes the shooting ended, the McLowry brothers and Billy Clanton were dead. Ike Clanton and Billy Claiborne had escaped death when they fled. Doc. discovered a red streak across his hip where Frank McLowry's bullet had grazed him.

At a coroner's inquest held three days later on 29 October, John Henry Holliday and the three Earp brothers were charged with the killings of Billy Clanton and Tom and Frank McLowry. Virgil and Morgan Earp, due to their wounds, were not in court. Wyatt and Doc. were arrested by Sheriff Behan, but released on bail. Will McLowry, an attorney by profession and the dead men's brother, arrived from Texas and was able to force the judge to re-incarcerate them without bail leading to their re-arrest. On 4 November they were freed on a writ of *Habeas Corpus*.

Wyatt and his allies were now the defendants, and were forced to show

cause why they should not be indicted for deliberate and unprovoked murder. The local paper, the *Nugget*, controlled by Sheriff Behan's cohorts, churned out its propaganda and pressed the charges with considerable inaccuracies, but dwelt on the charge that there had been a misuse of police power for private ends.

Subsequently, after a series of court hearings, adjournments and legal actions, Wyatt and Doc. were cleared, and later a Grand Jury took the same view.

Following the trial and acquittal, Morgan Earp was shot in the back while playing billiards. His brother Wyatt vowed to avenge his death, and the killers were subsequently identified and one by one were hunted down and killed. Although there were strong suspicions that the Earps and Doc. Holliday were the assassins, no evidence was ever produced to charge them.

Tombstone was now no place for either the Earps or Doc. Holliday – they had created too many enemies in the wake of their trail of vengeance – and in 1882 they travelled to Pueblo, arriving about 7 May. There Doc. was taken by surprise by one Perry Mallan, who claimed to be a Los Angeles law officer. He arrested Holliday and escorted him to the local jail and told him that he was charged with the murder of Frank Stillwell, one of the gang involved in the killing of Morgan Earp. It transpired that Mallan was an impostor employed by the crooked Sheriff Behan, who wanted Holliday back in Arizona territory.

After a series of further court appearances he was released, only to be re-arrested on a further warrant from a sheriff acting under instruction from his old enemy, Behan. Once again he was bailed and released, but failed to appear in court to defend the charge. Doc. knew that he was not free of enemies from his Tombstone days, and soon learned that several enemies from Tombstone were also in town determined to avenge the humiliation they had suffered at his hands when they were evicted from the Oriental Saloon in Tombstone by Wyatt Earp.

They taunted Holliday on several occasions, challenging him to pull his gun, but Doc., determined to stay within the law, announced that he did not have one and refused to be involved.

However Holliday could not avoid Billy Allen, who was in town with a gun looking for him. Unfortunately, he owed Allen five dollars. Allen threatened violence if he did not pay up, and when Doc. spotted Allen with his hand in his pocket he assumed he was about to produce a gun. Doc. fired, but luckily for Allen the bullet hit him in the arm and Doc.'s second shot missed his opponent by inches. At that point Doc. was pulled away before he could fire again. Holliday was arrested and charged with assault with intent to murder, but after a number of court appearances he was found not guilty.

After visits to Denver, Silverton, and back again to Denver, Doc. was finally persuaded to travel to Glenwood, noted for its sulphur springs, in the hope that the water would improve his condition. Here he was nursed by Kate who had responded to a call to join him. Even in his rapidly deteriorating condition he attempted to do some dental work, but his violent bouts of coughing made that impossible.

For a time he reverted to dealing at faro in several of the gambling joints. The sulphur springs worsened his condition and he became bedridden, and in the third week of October 1887 he became delirious. He died at the Hotel Glenwood, Glenwood Springs, Colorado on 8 November 1887 at the age of thirty-six.

Doc. Holliday, highly skilled dentist, became known as one of the most skilful gamblers and speediest, deadliest man with a six-shooter in the Wild West. Unfortunately it was this expertise with cards and gun, and not his dental skills and dexterity, that he will be remembered for.

References for overheads

[It has not been possible to reproduce all of the overheads used in the original presentation, but included here is a list of sources. Editor.]

- 1 Doc. Holliday portrait 1851-1867. Website: www.jhholliday.com
- 2 Doc. Holliday portrait. Frontispiece from *Doc. Holliday* by John Myers.
- 3 Doc.'s Portable instruments. Website: www.jhholiday.com
- 3a Receipted account. Personal correspondence. David and Edna Wilson, e-mail: d.j.Wilson@blueyonder.co.uk
- 4 Doc.'s diploma. Website: www.doc-holiday.net/wsnE01A.html
- 5 Doc. Holliday portrait at graduation. Karen Holliday Tanner, *Doc. Holliday: A Family Portrait* (Oklahoma: University of Oklahoma Press, 1998). [Reproduced here as Figure 1. Editor.]
- 6 Bat Masterson portrait. Website: www.linecamp.com/museums/Americanwest/western-names/masterson-bat/masterson-bat.html

- 7 The Real Wild Ones. *The Wild West* website: members2.gotnet/rcbusman/index.html
- 8 Allen Street and Big Nose Kate Saloon. Website: www.minderwiz.pwp.co.uk/Tombstone.htm
- 9 Wyatt Earp portrait. Holiday Tanner, p. 114. [Figure 2.]
- 10 Doc. Holliday's Memorial Stone. Website: www.globetrotteradventures.com/DocHoliday.html

DENTAL PRACTICE IN LANCASTER, 1800 TO THE PRESENT – A PERSONAL ACCOUNT

John Sandham*

Although Lancaster has a long history, it has always been a small town, despite its name, belonging to the large and important county of Lancashire. Records go as far back as the time of the Romans, and Lancaster University has records that can name the Harbour Master from the first century. However many were lost at the time of the 1745 Rising.

Mannix & Co., in its *Directory of Lancashire*, gives the population as eleven thousand in 1801, increasing to 16,600 in 1841 and 31,030 in 1891. In 1950 the population of Lancaster was estimated as fifty thousand, which was the situation before the town boomed with the influx of students at the new University.

The golden age of Lancaster, when it was at its most fashionable, was between 1760 and 1810. This was due to the increase in trade with the New World, benefiting from the triangular trade movement – manufactured goods such as scissors, mirrors and soap shipping out to West Africa, being traded for slaves destined for the West Indies and the American South, and then imported goods being returned to Lancaster such as tobacco, sugar, mahogany and other tropical woods. Lancaster was prosperous at this time, popular and fashionable as a result.

Evidence that this was a happy period can be found at the Grand Theatre on St Leonardgate. It is the second oldest provincial theatre still holding productions, both professional and amateur. The oldest playhouse being the Theatre Royal in Bristol. Evidence may also be found in the Assembly Rooms, where at the time of the Assizes and Races the local aristocracy would attend the dances, balls and other fashionable events. There was a cavalry and an infantry barracks situated within the town. It is also alleged that 'Little Black Sambo', the first black man buried on English soil, occupies a grave at Sunderland Point at the mouth of the River Lune.

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Most importantly for Lancaster at this period was the emergence of industry, particularly that of Gillows and Co. Mr Gillow was originally an architect, who found that making furniture was a more profitable business. Later wooden aircraft frames were made at the Gillows factory in both the First and Second World Wars.

The second great period of industrial expansion came late in the nineteenth century, and as a result Lancaster was saved from the worst excesses of the Victorian housing conditions. Social conditions were also relatively advanced compared to other towns.

At this time Lancaster came to assert itself as the Linoleum capital of the world. All this was due to 'Lil' Jimmie Williamson, whose son would eventually become Lord Ashton, who would have his town house at The Boltons, Kensington High Street and was reputed one of the ten richest men in the world. Lancaster floored the world.

Their main rivals were the Storey Brothers, and together they made Lancaster the biggest user of acrylic in the UK. Total usage per year was about forty tonnes. Dentistry by comparison used only about a quarter of a tonne in 1965. Research was carried out at both companies on a range of resins, adhesives and polymers. Both companies have been taken over several times, and Williamson's finally closed in 2001.

The third period of rapid expansion in Lancaster is occurring now. Population growth is now put at ten per cent per decade. Since the University opened in 1960, it has consistently held its place among the top twenty-five universities in the country. It is particularly noted for Business and Financial Studies, Engineering, Social Science and Religious Studies.

It is remarkable to see how the local history of our profession reflects that of our national history. Sources have come from advertisements in the *Lancaster Guardian* and the *Lancaster Gazette*, *Mannix and Co. Lancashire Directory*, the *Dentists Registers* and from personal recollections by colleagues and myself.

The first entry I located in local newspapers was dated 31 March 1804, and was repeated on 30 June of that same year.

J. Summers.
Dentist.

Returns his sincere thanks to the Ladies and
Gentlemen of Lancaster and its vicinity for the
Favours he has received and respectfully informs

Them that he has REMOVED from Mr.
Woodburns to Miss Noons at the Royal Oak
Inn where he shall be happy in receiving
Their commands till Wednesday next when

He will positively leave their town till
November next.

Lancaster 29th June 1804

If that seems flamboyant, the next is even more so.

J. Kilner, Dentist

Respectfully informs the Nobility and Gentry
Of Lancaster and its environs that he has
Just received an assortment of best materials from London
And offers his services to clean or scale teeth and
Affix new teeth from one to a complete set
In an approved manner and much cheaper
Than is generally charged. Orders addressed
To J. Kilner, John St. Lancaster will be
Duly attended to.

There are several ads. from a Mr Turner concerning prosthetic matters,
the first one of which was found dated 1826.

ARTIFICIAL TEETH
MR. TURNER
DENTIST

Most respectfully informs his friends and the
Public in general that he intends being at
Mr. Turners, Castle Hill, Lancaster on Friday
18th August and nine following days at
Mr. Turners, Castle Hill.
Artificial teeth made to answer all the
Purposes of natural teeth on gold, silver or bone
From a single tooth to a whole set
His contrivance mechanical is performed without pain.

NB. As his time is limited he begs an
Early visit from those friends who may wish to
Honour him with their commands.

Here is a modest advert for achievement in 1809.

MR. LEWIS,
SURGEON DENTIST
FROM EDINBURGH
Respectfully informs the Ladies and
Gentlemen of Lancaster
That he performs every operation
Necessary for the health and preservation
Of the teeth and gums

Mr. Lewis fits real and artificial teeth
 From one to an entire set, so as not
 To be discovered from nature. Counting
 The comforts of health and cleanliness and
 Completely answering the purposes of
 Mastication and articulation
 Commands left at his lodgings at
 Mr. Kitchens New St. Will be punctually attended to.

Demand exceeded supply back then, like today, and so many dentists fell back upon the great attribute of 'muddling through'. This advert from 1826 is a good example.

MR TELZIFAIN
 SURGEON DENTIST
 (FROM DUBLIN)
 Begg to state that as he cannot complete
 His engagements during his present visit he
 Proposes returning in the close of a few months.
 Mr T does not leave Lancaster until the 13th
 Mr Boulton's Queen Sq.

Also in 1826 a very enterprising entrepreneur:

PARKER BOTT of NOTTINGHAM
 DENTIST
 Informs his friends and the public in general that
 He has sold his entire property which includes,
 Bott's Tooth Powder,
 Bott's Tincture for scurvy in the gums.
 Bott's Corn Salve.
 Bott's Sanitive Salve for relief and cure of disorder of the breast
 Bott's Nanken Dye Warranted to stand washing
 Bott's Cloth Powder

In 1831 there is an advert for Mr De Loude, a Surgeon Dentist from Liverpool, who had undertaken studies in Amsterdam and Haarlem. In 1845 the advert for a Mr Moseley appears below the Royal Crest and pays tribute to his talents. In 1850 an advert from Messrs Gabriel appears to be the earliest example of a 'Body Corporate'. The final advert before the Dentist Act is from a Mr Fort. Dated 1857, it is the first that includes a fixed address and, as far as can be ascertained, he is the first to obtain a professional qualification in Lancaster - i.e. LDS RCS, England, 1878.

The 1840s and 50s were a time of discovery. In Boston, Dr Horace Wells, Dentist, developed nitrous oxide as an anaesthetic, providing for the first painless extractions. Goodyear developed the process for the vulcanisation of rubber, and in France came the development of a reliable process for

the manufacture of porcelain. Extractions, a denture base material and porcelain teeth came together as a feasible proposition just as sugar consumption was on the increase.

All of this resulted in the emergence of more and more resident dentists, a more readily available means of painless extraction, and the Dentists Act 1878, although flawed, did result in the beginnings of a professional ethic. Indeed it was only some twenty years later than the General Medical Act of 1858.

The adverts in the *Lancaster Guardian* of Saturday, 2 January 1871 show two resident dentists with 'apparatus for the administration of liquid Nitrous Oxide gas for the painless extraction- of teeth.'

There was a history in the *British Dental Journal* on 19 August 1975 of one Edwin Cox, Dentist of Preston, who obtained his LDS RCS (Eng.) in 1863. His conclusion was that 'Securing the diploma of LDS.ENG was a wise and valuable step. It placed my position within the medical profession beyond question. On that ground I was admitted to the Preston Medical Society. It increased public confidence and gratified my wife and family.

The situation in 1901 in *Kellys Directory of Trade* was:

Henry Atkinson. 21 King St.
 J.W.Forts. LDS. 38 King St.
 J.Cutts. 36 King St.
 F.E.Cutts. LDS. 36 King St.
 E.E.Cardwell. LDS. Market St
 E.Cardwell. Market St.
 E.Paylor Hall. China St.
 E.Harrison. 25 Castle Hill.

The Dentists Register of 1900 showed the following in practice at Marketgate, Lancaster:

Cardwell Edward E. In practice with Pharmacy.
 Cardwell Edward Jnr. LDS.RCS.ENG. 1899
 Cardwell Ernest Edmund. LDS.RCS.ENG. 1895
 Cardwell Harold. LDS.RCS.ENG. 1898

Harold stayed in Lancaster. Edward Jnr was registered in Kirkcaldy and Ernest in Maidstone. Later records show that Edward and Harold both obtained DDS (Phil.)

In the *Directory of Trades*, 1912, there were fourteen registrations in Lancaster, of whom three had LDS. In the 1930 edition there were twelve registrations, of whom six had LDS, including one Boots Dental Surgery. This demonstrates the flaw in the Act, as so many could register without completing a University course of study.

The 1930 register included E. Hall LDS RCS (Glasg. 1914) and A.W. Holmes LDS RCS (Edin. 1914), who both practiced at 21 Castle Hill, and were in my young days regarded as dentists to the 'carriage trade'. I can't remember them, but I do remember Richard (Dick) Storey LDS, who was one of the Storeys of Lancaster who owned the chemical firm. He also practiced with Hall and Holmes.

The *Directory of Trade in Lancaster*, 1934, stated the following:

Anderson H. 1921 Francis Passage
Bresford Behrens. LDS. 6 New St.
Cardwell E.E. LDS, DDS., and Cardwell T.G. LDS. Marketgate.
Cutts F.E. LDS. 36 King St.
Fawcett S.F. LDS. 77 Queen St.
Hall Ingles LDS. 21 Castle Hill.
Hodgeson R.E. 1921 Rydal Rd.
Holmes A.W. LDS. 21 Castle Hill.
Millet T.F. 1921 6 New St.
Priestley J. 1921 19 Dalton St.
Smith E.D. 1921 15 Dalton St.
Thistlethwaite J. LDS. 13 John St.
Widdup Percy. 1921 34 Church St.

Only two of these addresses are still dental surgeries today.

Certainly the crime of the twentieth century in Lancaster was the Ruxton murders. I quote verbatim from *Rex v. Ruxton*:¹

In September 1935 there were reputed missing from Lancaster two women, the wife of Dr. Ruxton and Mary Rogerson, her maid. The Doctor declared that they had left his house and said he thought that they had gone to Edinburgh.

Two weeks later some human remains were found in a ravine by the roadside near Moffat, some 170 miles north of Lancaster. Further searches resulted in the discovery of more human fragments, some being found up to nine miles away. In all 68 portions were discovered, and when assembled they were found to represent the parts of two female bodies.

Extensive evidence was presented by Dr Hutchinson, later Professor, at Edinburgh. He provided odontological evidence that helped to confirm that the bodies were indeed those of Mary Rogerson, aged twenty, and Mrs Ruxton, aged thirty-five. Dr Ruxton was found guilty of murder and condemned to death at Strangeways.

At the time Ruxton went to all the dentists in the area to try and collect any evidence that would make the identification of the bodies doubtful. By

repute he had been a superb doctor with First Class Honours from London. He also acted as an anaesthetist for his patients if they were having dental extractions. I think that we, the Sandhams, who lived just across the corner from the Ruxtons in Dalton Square, were probably the closest human beings to Ruxton on the night of the murders.

However the tragedy is compounded by another dentist, Mr H. Anderson, aged fifty-eight, who resided at Balmoral Rd, Morecambe. He was found dead in 1936 by his maid in the early morning, with his head in the gas oven and the gas still turned on. A note had been left, although it was not read out at the inquest. However he had been depressed, his daughter had died the previous year and his eyesight was poor. Mr and Mrs Anderson had for a time been looking after the three Ruxton orphans, Elizabeth, Diana and Billy. Later they were transferred to the Parkside Children's Home, run by the Lancaster Public Assistance Committee.

At the onset of World War Two many dentists joined the Services. Mr Thistlethwaite was called up and his practice was 'closed for the duration'. Mr Behrens served in West Africa. Geoffrey Cardwell of Marketgate had qualified in 1929. He had three sisters and then a younger brother, Ernest Cardwell, who qualified about 1938. Ernest was called up also. On 14 February 1942, Japanese troops bayoneted one hundred and fifty patients and staff to death at the Queen Alexandra Military Hospital, Singapore. Ernest Cardwell was among them. His name is on the plaque at BDA headquarters in Wimpole St, and also on a plaque in the Lancaster Garden of Remembrance. Fortunately Messrs Behrens and Thistlethwaite returned safely.

After the war, and this is not meant to be facetious, we lived in a socialist paradise until about 1970. With a benevolent State and an honest public, a tremendous amount of good was done in both health and education.

Now for the post-war period. Edgar Cowperthwaite spent his twenty-first birthday away on watch at Scapa Flow. He went to dental school after the war and joined my dad in 1953. Geoffrey Cardwell was joined by Gordon Hardy, who had qualified in 1938 and had served in India. I believe he was the first in the town to qualify BDS. John Millet qualified in 1942 and served in the Army. He was joined in 1954 by Garry Helliwell, who went straight to dental school and then completed his National Service. They then took over from the executors of T.F. Millet. Ken Widdup qualified in 1938, served in the Army and then returned home to join his father in practice.

Ian Smith, the school dentist, was appointed by the Local Authority in 1928 and worked in the Thurnam St and Ashton Rd clinics until his retirement in 1964. He served in the war as a Captain in the RADG. We were once honoured to have Sir Terence Ward, mover and shaker in academic circles and Dean of the Faculty of Dental Surgery at the RCS, give a talk in Lancas-

¹ G.H. Wilson, *The Trial of Buck Ruxton. Notable British Trials* (London: Hodge, 1936).

ter. Sir Terence and Ian Smith had been apprentices together under a dentist in Edinburgh. Their first jobs there had been to clean the doorsteps and polish the professional plates on the front door. Imagine that happening today.

After the war the character of the profession changed and there was increased co-operation between colleagues. Two pilots from the Royal Flying Corps in World War One were the instigators of the BDA in Lancaster. They founded the Lancaster and Morecambe Section in 1946. Bill Wolfendale had been awarded the MC in WW1, after a machine gun attack while he was an officer in the King's Own (Lancaster Regiment). He then became a fighter pilot in the RFC. His father had been Chief Engineer at Williamsons Lune Mills. Bill had social skills in abundance, being Captain of Morecambe Golf Club, Master of the local Freemason's Lodge and President of Holme Working Men's Club.

The other man was my dad, John William Sandham. He also served in the King's Own Regiment and then as a fighter pilot. He always claimed that he had seen Baron von Richtofen and Goring while flying. He was a strong personality, and I have spent my whole life trying to escape his shadow.

Mr Wolfendale died in 1956 from lung cancer. My father died in 1958 from coronary thrombosis after two or three years of strokes and heart attacks. Both remained in practice despite their illnesses. Few dentists today fail to reach retirement age, and very few die while still in practice. Mr Wolfendale's practice was taken over by his brother, Cedric Richard Wolfendale who moved up from Norfolk. However the practice closed about ten years later.

Enoch Powell was Minister for Health in 1962, and was at that stage considered a potential Prime Minister (before his 'Rivers of Blood' speech). He made a visit to Lancaster in October that was scheduled to last for two hours. It was to include a visit to a local dental surgery, followed by a visit to a vast Psychiatric Hospital. Mr Powell spent well over an hour at our practice talking dental politics and kept all the dignitaries at the Lancaster Moor Hospital waiting around. He then looked round the hospital in about ten minutes. He replied to criticism by saying that dentistry was a very important element of the NHS. There was much jealousy from colleagues, but Sandham and Cowperthwaite had been Chairmen of the LDC for over twenty years and certainly justified the visit.

The 1958/9 *Trade Directory* was published by County Publicists Ltd of Blackpool and listed ten 'Dental Surgeons', the first time they had not been referred to as 'Dentists'. This was fewer than 1912 or 1934. Consequently they were working longer hours and with fewer days off.

New practices and dentists did gradually arrive. Mr McBurnie set up practice in 1955. Later this practice was run for many years by Mike Nelson, sometime Chairman of the Lancashire and later the Morecambe Bay LDC.

Terry Tinn came from Newcastle in 1975. His father and grandfather had been dentists, and in fact several Tinnns in the Newcastle area appeared in the first register in 1879. One of these Tinnns was indeed a direct ancestor of Terry. Mr David Andrews started in 1980 and was succeeded by Ian Wild. The Poggo Dental Company took the practice at Skerton, the only practice situated north of the river. Peter Jackson BDS, FDS, DOrth commenced a specialist orthodontic practice about 1990.

What about the other dental services in the town? Eric Cooper, who was the dentist in the Colditz POW camp during the war, was the first Consultant Dental Surgeon based at the Royal Lancaster Infirmary. He was followed by Richard Dendy, who played an active role in the local BDA and also at the national level. His post has now been taken by Peter Dyer.

The first Consultant Orthodontist was a Mr N. Wild, who was widely respected but unfortunately died young. He was succeeded by Donald Timms, well known in gnathological circles. Gordon McCracken then took over, and again he has recently retired and has been replaced by Olga Keith.

Keith Woods has recently retired from his position as Consultant in Dental Public Health. He has recently written an article entitled 'Who Cares What Care'. It shows that the most deprived in our society do not use dental services, or indeed any medical services, even though there are more doctors and dentists available to provide help and aid.

Medical education is commencing in Lancaster, and some of us hope that dental education might be considered also. Dental students would certainly experience a wider social mix than they are likely to do in the run down areas of our big cities.

To sum up two hundred years of dentistry, then, in Lancaster. Since the records began there have been approximately a hundred dentists in practice in the town. On average, they have each devoted thirty years in the service of the profession. There has been one case of murder, three suicides and, unfortunately, two anaesthetic deaths. Compared to morbidity and mortality rates in poorer countries, we have enjoyed a very high level of professional expertise and ethics.

I feel very proud that my family has contributed to this. We have, between us, served Lancaster as dentists for exactly one hundred years.

'MY DEAREST LIL': ROBERT LINDSAY'S LETTERS AND DIARY FROM THE UNITED STATES

E. Muriel Cohen, MBE*

With these words it was Robert Lindsay's custom to begin his letters to his wife Lilian.¹ A bundle of these letters and a diary were found among her possessions after her death. They were written in a tiny hand during a visit to the United States in 1926 when Robert attended the Seventh International Dental Congress in Philadelphia, preceded by a few days in New York for the First International Orthodontic Congress. Nine official members represented the British Dental Association, and there were several other British delegates.

These writings reveal the private character of the man who was most important to the dental profession as the first Dental Secretary of the Association from 1920 until his death in 1930. In more recent years he has been overshadowed by the achievements of his wife and has been described as an austere personality, a man of clear thought and quick perception, and a tactful and good-humoured negotiator. These extracts from his diary and letters reveal his interest in the organization of the meetings but also in the novelties of American life, as well as his constant thought of Lilian in his dedication of many hours of his time to writing an account for her of his activities and impressions. It has been necessary to make selections for this paper.

* * *

Diary, Saturday, 7 August 1926

We ran on to the pier at Southampton shortly after 10 and got on board without incident. As the watcher on the threshold refused to Wood² to return

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1 E. M. Cohen, 'Robert Lindsay: a quiet but influential figure' *Dent. Hist.*, 33(1998), 45-49.

2 Bryan Jardine Wood, FDS (1877-1965). Practised in Kettering, Northants. Held every executive post in the BDA except that of Secretary. From 1939-53, Editor of the *British*

a few hundred yards to purchase a nailbrush we presumed the boat would sail as we understood was intended at noon. We got to our room all right and found it very comfortable and large enough to make our week's stay quite an ordinary experience. The usual wandering about ensued watching the luggage come aboard, noting the position of various things and examining our fellow passengers as they moved restlessly about. Some of these were already ensconced in deck chairs with that wearied look of resignation which characterizes the citizen who goes down to the sea in ships with a healthy suspicion of the Great Waters... She began to move as we took our soup and by the time we got on deck was moving down Southampton Water in bright sunshine, the shore and the shipping making a most brave and beautiful show especially the yachts racing inside the Island. Gradually we picked up and recognised our friends among the passengers. The luggage came along and we could unpack for which there was ample room. Two wardrobes and a chest of drawers besides other handy receptacles. Tea was somewhat difficult to get on account of the crush requiring it and the Board of Trade regulation for a muster of the passengers immediately after sailing at their boat-stations with life-belts on, when we were addressed by an officer as to what must be done on the call to abandon ship. Rather resented the somewhat foolish jocularity of many of the people at our station. That over we pursued tea with vigour & ultimately ran it down in the lounge - it was nothing to boast of at that ...

9 August 1926

And after 11 to the doctor. He cheerful as ever, & both of us reminiscent of blood-poisoning. Thinks I am getting along all right & the hole healing nicely from below, dressed it and I up on deck. [Robert had evidently had a boil on his neck which Lilian had lanced.] Only one young lady waiting to see him this morning in contrast to yesterday's crowd. Boat deck in the sunshine watching deck-tennis and being blown upon by the fresh air. We handed in our estimate of the ship's run to Gilmour³ at breakfast and *mirabile dictu* I won with 433, the correct figure being 438. Much merriment over my luck at lunch as also over my tonic. That will shortly be unnecessary I expect. My appetite requires no stimulant, buckwheat cakes and maple syrup bringing

Continued ...

Dental Journal. A close friend of the Lindsays, who persuaded Lilian Lindsay to begin writing her autobiography.

3 William Henry Gilmour, LLD, MDS (1869-1942). Practised in Liverpool and at the Dental Hospital. Director of Dental Education, 1912, first Professor of Dental Surgery in Britain, 1922. Received honorary LLD from the University of Philadelphia at this conference. President of BDA 1927, so attended as President Elect.

back the remembrance of American quick lunch in London over 20 years ago. The ship's routine is now established and at lunch we had the printed list of passengers and other cheerful facts. A snooze after lunch & another visit to the boat deck with the view of the second tramp going eastward. What a beautiful sight our wake makes especially in its making up near the bows with bursting foam and the spray showers each producing a flash of a rainbow as the sun strikes it. Never saw a twenty mile horizon before without a sign of animal or vegetable life. No traffic problem in the Atlantic yet, & just as its infinite loneliness became fully conceived there was a gull solitary over the waters and from below the rush of a pair of porpoises to prove that life was all about us. What most impresses me on board with respect to one's fellow passengers is the crowd of young American girls but this also impressed one that so far as youthful spirits were concerned which one would look for in a similar number of English girls, there is a lack. Curious things they appear to be, self-possessed, well dressed in the latest fashion, hair and skirts equally short. Now for a trip up into the keen air again.

10 August 1926

Getting behind with this diary. Yesterday I won the sweep of table 15 on the run... Afternoon was devoted to the Competitions, Deck-Tennis of course attracting the majority. Very brilliant play going and Wood and Bryan seem likely to get well up towards the Final. I alternated between the tennis party and the front of the boat deck, watching the sea, not taking advantage of the doctor's permission to play. Ships are few; there were three lights astern on the port quarter last night about 11, one from the amount I should judge to be a passenger steamer but we had no word of her. The Aquitania to which our letters were transmitted was 100 miles off. Another chance was given us today. The Carmania is passing east and letters were received for transmission to her to be posted in Plymouth on Saturday. I of course took advantage of the chance and did the 30 words for 5/8 [27p]. Now with a bright and mild evening I am off to dress for dinner as far as that is possible.

11 August 1926

What a damned thing is a Tory. Yes indeed. Some harmless remark of mine to Sargent⁴ brought a reply to him again that I was a member of the N.L.C. [National Liberal Club], an Asquithian and presently we were in the

4 Vyvian Fitzgerald Sargent, LDS RCS. Practised in London.

Coal Strike and the General Strike with Northcroft,⁵ Badcock⁶ and Sargent pitching the usual ghastly rot about Red Revolution & what the strong government had saved us from. Wood out of half devilry pitching his opposition pretty high. So we went from bad to worse, I cracking up MacDonald ... until Northcroft stirred to the depth of his soul got up & left the table before the curses of Nationalization of Everything which I proposed. We must keep off politics for a bit...

They are the stodgiest lot I have struck for a time and having tried them at all points at last I took a fiendish delight in putting the fat into the fire... Doctor still pleased with my progress. Humorous man, the Doctor, a typical Irishman. Tells me that the charge of 2000 folks gives him plenty to do, not the least arduous being to understand the various patients. Difficulty with four Flemings yesterday from whom he extracted some understandable French. Last journey a party which he had to land at Ellis Island after trying 27 different languages and dialects without success. The Ellis Island interpreter was beaten until some friends arrived to claim the party which was from some remote area about Persia. Just as well I think that my recovery was assured before I fell into my genial and very kind colleague's hands. The crucial element in the treatment I got from my wife. The doctor said when he looked first at me 'Well, you have been properly cut.' I said my wife did that. 'Well,' he said, 'she did it pretty thoroughly.' After that I spent the morning on the boat deck where all was excitement over the competitions. But forward under the bridge I basked in the sun with a wide expanse of beauty around me. 'What's that bird?' I said to an officer with whom I was talking. 'That's not a bird,' he said, 'That's a flying fish.' So my first introduction to that interesting personality. He promises that we may see shoals of them tomorrow as we are near to the warm water of the Gulf Stream. Gulf weed was floating steadily by and the fact that the stream was against us brought down the day's run from 442 to 420. The north-west wind keeps the temperature right but for which it would be uncomfortably hot.

5 George Northcroft, OBE, LLD, DDS, LDS (1869-1943). First lecturer in dental surgery at the London Hospital. Co-founder and twice President of the British Society for the Study of Orthodontics which founded Northcroft Lectures in his honour. For fifteen years Chairman of the Representative Board of the BDA and for eighteen years Honorary Curator of the BDA Museum.

6 John Henry Badcock, FRCS, FDS, LRCP (1864-1953). Dental surgeon and lecturer at Guy's Hospital, Professor of Dental Surgery at Royal Army Medical College. Co-founder of British Society for the Study of Orthodontics and its first President. In 1919 was Treasurer of the BDA and Chairman of its Benevolent Fund; in 1925 became President of the BDA.

The arrangements for the games and concert proceed apace. There is to be a fancy dress dance. Down to lunch feeling like it. For the first time since our start we were a complete party. Jameson⁷ after a morning on the upper deck mostly in a deck-chair took his courage in both hands and sat down with us. I hope he sticks to it now. For anyone to be sick as a result of this weather is a farce. One might for example be sitting on a seaside promenade for all the movement and it has been practically a steady lazy pitch most beautiful to watch from the front of the boat deck... Had my first interview with an American reporter yesterday. He seems a mild specimen but time will show. My attempt to pass as anything but a dentist was frustrated by his being brought to me by one of our members...

Letter, Friday, 13 August 1926

I tried him [the reporter] with the story of my going to Canada as one of a deputation to present a silver mounted set of bagpipes to a man called Machale but it didn't fox him.

Diary, 13 August 1926

Another indication of the approaching end of the voyage. The sounding gear is being rigged. Everywhere the writing up of diaries is redoubled. Curious – some people have practically spent the whole time in the drawing room or the lounge. They seem to settle down at once to cards or conversation and the mellifluous intonation of the American language pervades the patient air. Preparation is afoot for the fancy dress dance tonight in which Wood may figure as a pirate captain, a sheik or anything else which the ingenuity of certain American ladies with whom he has been playing tennis may evolve. I happily am preserved from all that by my 'indisposition'. What a curious thing it is to pass a printing press in full operation as I did on the lower deck yesterday. Today's edition of the *Daily Mail* was being machined. Reminded me almost for the first time of the *Journal* and that it must or ought to be going to press just then. Thank heaven for the capacity to forget these things.

Letter, 13 August 1926

RMS Caronia about 700 miles from New York

⁷ John Thomas Jameson, MDS, FDS (18??-1950). Qualified in 1890 in Edinburgh, practised in Newcastle. Founder of the Dental School in Newcastle in 1895, became its second Dean 1907-25. President of BDA in 1922.

My dearest Lil,

With this comes the diary so I need waste no time on the discipline of our daily life on board and first as to my health – that is excellent. I am now learning what a melancholy sight I was when I came on board from friends who marvel at my present appearance. I am obviously living fat. 'No wonder' you will say when you look at the day's menu I send under separate cover and which says nothing of afternoon tea or 11 am soup and biscuits...

My great refuge is the front part of the boat deck just under the bridge. This is 60 feet above the water and the great view point. It is too exposed for the average passenger and I get long hours there alone, sometimes merely leaning lazily over the rail filled with the lovely mystery of the sea watching for passing steamers or flying fish, then a few words with the officer of the watch who comes there from time to time. I was trying on Thursday night about 10 pm to get in touch with you. Not very effectively however although I got you in the corner of the sitting room listening in. I miss you greatly. It would be such perfect joy to have you there to look at the sea together...

A big French liner passed us fairly close. All the other ships were at least six miles off but it seems that these French boats don't stick to the International arrangement as to courses but cut the corners. All the other lines have this arrangement of definite courses out & in. The Aquitania and the Carmania were 100 miles south of us when they passed and so we only really see tramps or boats outside of the course arrangement. Since the Titanic disaster the courses are set to avoid the ice. We come steadily south after passing Land's End to 40° and then turn north again for New York...

Diary, 16 August 1926 – New York

Continued in our room at the Commodore 11 storeys up and very good. Friday night closed the festive part of the week on the Caronia. Saturday very overshadowed by the notice that heavy luggage must be ready for the stewards at 9 pm and the mail by 10. There was therefore much pressure on the writing room tables and purchasing of stamps & I as usual took time by the forelock and got my mail all despatched early in the afternoon. Wrote out my cable in anticipation of a safe arrival & leisurely completed my packing before dinner where all were in ordinary dress & there again I got my tipping over & had an hour on the boat deck for the last time in a strangely warm and moist night. The fog which had impeded our passage all day was cleared up, but nothing was to be seen ahead. Then came the most interesting feature of the day, a most brilliant display of lightning with one or two effective thunder peals & torrents of rain...

We were up early and dressed without baths and then at 7 am the MOH of the Port arrived. We were herded to the Drawing Room and the decks

around until the solemn procession past the doctor was marshalled and the first breakfast party got the welcome permission to go to breakfast while we less fortunate ones watched the preparations for getting under way and took our first view of the American continent at Staten Island. We went to breakfast just as the anchor came up and during breakfast rose en masse to view the Statue of Liberty. By the time we had finished the work of getting the Caronia alongside the quays were in full swing & the Embarkation Officer was busy with the 'citizens' while we aliens hung about the decks waiting our turn. At last it came and the interview terminated satisfactorily & we were free to leave the ship which we did promptly at 11 am. A man from Cooks met us and looked after our luggage & took us to the Commodore where we speedily got to our rooms on floor 11 - there are 22 of them - floors, not rooms. Our number is 1173. Our room is most charming, with its private bathroom looking most clean & comfortable. We hastened to examine all the gadgets & pronounced them wonderful...

Then four of us got out to do the Riverside ride in a bus which we accomplished for the reasonable sum of a dime. What a fearful & wonderful place New York is. We went down Fifth Avenue & the roads in the Hempstead Garden Suburb are smooth and well kept to a degree compared with fashionable streets of New York. The bumps due to holes and badly repaired openings were simply unbelievable had one not actually experienced them. Broadway was in like case & the houses & the skyscrapers ... These latter seen at close quarters are not as imposing as we were led to expect but they are ugly enough in all conscience. We saw the outside of the New York Public Library, the unfinished cathedral, the tomb of [omitted but presumably Grant] & Central Park. The run along the riverside was good. Their buses go much faster than ours & their traffic regulation is good, but no, London and old England for me. Back after two hours' experience just in time to have a bath & dress for dinner...

Letter, 14 August 1926

The Commodore, New York

My dearest Lil,

We are really living in a film. There's no other name for it... Sorry I can't send you a picture of the lounge of this hotel or the Summer Garden dance & dining room or the 100 & 1 other extraordinary things of this most extraordinary place. If I had not sure & certain hope of a happy deliverance & return to England home & beauty in a fortnight I don't know what I would do. We have been storm stayed in this hotel this evening when we had in-

tended to have dined out somewhere. Talk of a singing bird whose nest is on a water shoot. The rain came down in solid sheets all the time, blue lightning flashed all around. There wasn't much thunder & we perspired in our room reading American newspapers then descended to eat a bit while watching the dancers in that extraordinary Summer Garden which is of course not a garden but a vast room with no pillars, decorated quite regardless of expense in a most bewildering variety of styles. It is there that the Canaries have their job. Fancy all down the centre & sides of this place there are hanging cages with canaries singing at the top of their pipes. There is a man does nothing else but look after them. The lighting is by means of great cream silk shields of round shape projecting from the walls with rich flower patterns on them and fans inside. One side has a great range of windows opening over the street through which the bumps and shrieks of the trains & motors enter to mingle with the orchestra & canaries. The centre of the floor is reserved for dancing - the dancers & others sit at tables around. The service is perfect & the food & its bewildering variety passes knowledge. We had green corn for lunch & the waiter sticks a silver plated kind of handleless skewer into each end & after plashing the cob with butter, salt & pepper to taste you hold it to your mouth & gnaw steadily along the cob rotating it the while. I nearly displaced my teeth on my first attempt but got that straight after ... Fancy beginning your breakfast with about a pound of melon. It was well called honey dew. Ice water at every meal kept replenished. Their ice is in neat cubes not the lumps we are accustomed to...

Diary, 16 August 1926

We inspected the various amenities & conveniences of the hotel & found them marvellous. Nothing that I have seen equals this. The elaboration of elegance & comfort is amazing. The multiplication of lifts which are classified into Express Non Stop 12 to 22 & Local Stopping 1-12. The various shops, bureaux, cafes all arranged conveniently. The boot blacking establishments - I counted three - the stockbroker rooms. You can call by telephone in your room a barber, an osteopath, a physician, a chiropodist, a stenographer & various other people. I find everyone pleasant & willing to help although the stories of the rush hours in the underground & other means of transit are pretty alarming. New York is a place for a capable healthy man par excellence ...

Letter, 14 August 1926

Wood & I have been letting ourselves go a bit & have just come to the conclusion that we must pull ourselves up. These Americans are a little solemn & don't rise so quick as Englishmen. The first session this afternoon was

a mixed treat. A solemn Board of Education man welcomed us in the name of the Governor of New York State. He said 'Mr. President, Ladies & Gentlemen' & paused looking at us for about a minute & then got on with the most commonplace opening I ever heard. I was expecting a neat crisp aphorism but no. The President was a bit flat. Badcock who opened what they called the discussion in his address read a few short remarks to himself. Northcroft had the report of the Nomenclature Committee which he read very much in the same way.

Gregory⁸ was down for a paper on Palaeontology but he didn't come & Hellman deputized for him. Hellman is a foreigner & talked English as such. There was a delightful screen for lantern slides which took about half an hour to rig up & wasn't much good when it was rigged. Hellman talked in a confidential manner to the screen & noone was a bit the wiser. The next man was on Diet & Malocclusion and he was quite inaudible. I caught the name of Prof. Brash occasionally. When he was done I said to Wood 'I am going for tea' & I went. He followed me with docility & we got a comparatively cool spot in the lounge where we had 'English muffins' - God save the mark. The waiter evidently thought we should have them but we had a very good Chocolate éclair & what they called Orange Pekoe tea & to the handle of the teapot there was attached an orange coloured label to prove it ... That lounge is a scream. It has round-headed arches which might be Norman or Roman, Middle English gargoyles in places where no such things should be, Bacchuses & Persian carpets & large bronze vases & flowers & Chippendale chairs & all such stretching along in the distance at the sides, all the various information bureaux with dozens of telephones & well dressed attendants & a roof somewhat like the lounge in the Russell Hotel & a regular battery of lifts ... I think the lift attendants & waiters are somewhat puzzled by us. We have a floor clerk who was for 2½ years at the Imperial in Russell Square & wants to get back there. She is a mine of information and lectured us sharply when I repeated a room number after her wrong.

Our bathroom is a great treat. Hot water at once on turning the tap & a special tap which delivers iced drinking water. The shower bath is a great treat & there is a pile of bath towels & also of ordinary ones renewed daily. We have the banquet on Wednesday. On Thursday we go to Long Island Sound where the golfers are to be playing. Those of us who don't play golf go with the ladies and are invited to buy tennis rackets & bathing suits. Friel's paper comes in tomorrow which we must attend but we have many

8 William K. Gregory (1876-). New York dentist and author. Wrote on origin and evolution of the human dentition.

other schemes not however including Niagara which I think is definitely given up. I have made my notes on organization - some things are good, others inferior to our own.

I never saw such streets. During the rain today the puddles were positively dangerous to cross without a boat. The various people doing things to the street to fill up holes with big planks over which the traffic goes but apart from these cases the roadway is simply shocking & the streets look dingy & neglected. Their traffic regulations are good. They have many high stations where a man works with green & red lights. The cars & things go about as recklessly as in Paris & at a high speed. They have mounted policemen with the big leather stirrup caps of the American Army. One who was tidying up a block rode up on to the pavement & all around. Fancy a London Mounted Policeman doing that. They are very autocratic I notice. So much for the experiences to date.

I am getting rather hungry for news of you but I hope the Mauritania which gets in tomorrow brings me a letter. I deserve one after the many I have despatched but which of course you cannot get yet awhile...

Diary, 17 August 1926

I went to the Museum where I spent a very enjoyable hour examining the exhibits which included a very successful & interesting mandibular resection for inferior protrusion. I saw Dr. Stanton's Pantograph & set of explanatory diagrams which refreshed my memory of what I had seen in Manchester. Hellman was equally unheard & I gave him up but when Cale-Matthews⁹ came on the meeting had been transferred to the ballroom with an amplifier which improved matters greatly. The lantern continued unsatisfactory however. Friel's¹⁰ paper was very good & we heard him fairly well... After that Wood & I went off down to the Cunard office to see about our Philadelphia ticket & then to the Customs House to get our embarkation arranged for. Following which we looked about that part of the harbour. The New York subway trains are a variation of our London tubes but noisier, dirty & in my opinion inferior except for speed. The method of charging a nickel for any distance appeared to me to be good. The same holds in some buses.

9 George Frederick Cale-Matthews, LDS RCS, BDS. Perhaps the first to restrict his practice in Birmingham to orthodontics. Was Secretary of the Central Counties Branch of the BDA from 1899 to 1905, and President 1910 and 1928. Founder of the Dentists Provident Society, 1908.

10 Ernest Sheldon Friel, MDS, FDS RCS, DDO. A Dublin practitioner specializing in orthodontics. Nominated to membership of the General Dental Council by the University of Dublin.

We took tea in a Broadway tearoom & then walked part of the way home. Heavy rain coming on, we made for the elevated railroad & experienced a mild part of the crush hour struggle. The New York Public Library attracted us on our way home & we looked at the entrance hall & interviewed the information clerk after which we got back to the hotel very hot, very wet & rather exhausted... We dined sumptuously in the wine cellar before going to the Plymouth Theatre to see *Iolanthe*. It was a very good performance although the ghost of Gilbert might well have turned in his grave to see the way in which the chorus was dressed.

18 August 1926

The theatre is a small comfortable one not much bigger than the Hampstead one but of course most beautifully got up. No pit, no gallery. Our run there in a taxi took us through the region of the sky electric signs. It was a revelation. Piccadilly Circus is pale & dull by comparison. The leaders had good voices... The chorus was pretty efficient, tending to exaggerate in the effect, especially in the entry of the peers in the first act with a Guards band in front of them. I fear the delicate humour of the book failed to get over in many cases... The Lord Chancellor was very good & so were the Chief Peers. To hear the genuine American come out in the repartee was a bit of a shock. The audience was very appreciative mostly at the right times. We walked back through traffic & crowds as busy as the West End of London but different in a moist heat that reminded me strongly of Geneva...

Letter, 19 August 1926

My dearest Lil,

The Aquitania goes today so just a word to say I got your letter all right yesterday. Never felt so hungry in my life for news of you before but the letter made a decent meal even as these go here & that's pretty high... We had a charming day yesterday at Wheeler's place & had a thoroughly American experience. Tell you all about it later. Back by railroad in time for dinner. I enclose the menu. Got some tips in organization here. It was perfect, so was the dinner. You would have enjoyed it. Most beautifully served at small tables, about 300, & the platform party of which I was one. We had a flash-light photo taken which you will see later. You will understand why I curtailed my speech on looking at the list... They played *The Bluebells* of Scotland as our National Anthem. The National Anthem of the country was played when each speaker was called... What a life. I would not stay here for anything. As an experience, Yes, for a few days - but not otherwise... Wheeler rang me up asking us to go to the country with him for the day. I

arranged to go round to his office & discuss the matter as he was then out & round we went to find him in a typical American house on the sixth floor to which a white dressed clerk in the hall sent us by an elevator, to be received by an equally white dressed secretary. Wheeler was not yet in so we waited in a small well furnished room with half a dozen other people where I was put at home by finding *Punch & The Tatler*. Presently Wheeler arrived and disposed of three patients & then he was ready for us... We were found by a thoroughly self-possessed young married daughter of Wheeler & we all were presently ensconced in the doctor's auto & proceeding at the reckless New York rate through the rain to his country house at Stamford 40 miles out. We went through Central Park & had the lions pointed out. Houses of various millionaires, Grant's tomb, the Zoological Gardens etc. The young married daughter was entertaining. She described stylish tenements we passed in an offhand way as habitable by the middle classes. Then we had some pointed remarks about the Negro as we passed through a part described as the Negro quarter. Then the Jews came in for a caustic treatment. Some desirable tenements recently erected have been invaded by the Israelites & no American will or can stay there. Presently the fashionable Park Avenue will be attacked & the natives driven out. She was a little suspicious of me, I saw. These Yanks are simple children to my ways. They are extremely sensitive about their country. You can fool them to any amount as to its beauty & up-to-dateness but a little mild leg pulling puzzles them & they resent anything they don't understand. We were greatly charmed by the scenery when we had shaken off the mud of New York. Such streets in rain you never saw - large pools of water through which the motors dash sending up showers of spray. The gutters don't seem capable of dealing with the water quickly & it is quite a job to find a place narrow enough to get over dry. The charm of their suburbs & country in the absence of walls & fences giving the effect of driving through some private estate except for the awful specimens of architecture with which one is so frequently confronted. Everywhere houses are going up, houses of all sorts, shapes & material, but the grass is fresh & green, there are plenty of trees & usually a lake or a barn in sight while their flower beds in the parks are very effective. We passed through all sorts of things, small suburban towns etc. along the main Boston Road before we turned off towards Stamford... Through country lanes closely reminiscent of Surrey we got to Wheeler's country house where we were met by a large solemn looking American from the South to whom we were introduced & who said very solemnly to each 'I am very pleased to make your acquaintance.' He turned out a very interesting man however & discussed American affairs including Prohibition in a most sensible way except that while deeply conscious of the want of respect for the law & while deploring it he described his own methods of obtaining cham-

pagne & other hard drinks for his friends & himself ... Then we all got packed into his cars & proceeded to the Golf Club house, a converted farm house which was very interesting indeed & seemed to me quite adequate but is of course only temporarily in use till a bigger house is built. We were a fairly lively party at lunch. A Japanese waiter did not please Mrs. Wheeler & the manner in which she took charge of him & ultimately got just what she wanted was most entertaining to Wood & me.

It was a charming little lunch, the liquids only the inevitable ice water & coffee. You can have your coffee at any stage in the repast. We were introduced to a pickle of melon rind which was most appetizing. I wish you could be at these American meals. The manner in which they are served is beyond praise. Presently we were on our way back to the house where we were conducted over Wheeler's farm ... Finally he drove us to the station about 8 miles distant & we returned to town by electric train in time to dress for dinner.

The dinner was again a most effectively organized affair, the guests all at nicely arranged separate tables decorated with the flags of all the nations represented. The speakers were all at the top table & everything went well. There were no toasts as we understand them. Fisher¹¹ the president said a few words as he called upon each national representative. Everyone stood while the national anthem of the particular country was played, then the representative spoke, usually for 5 minutes. Northcroft did very well in a carefully prepared speech for England. Friel was fair although nervous for Ireland & I had of course written nothing but according to remarks spoke all right. Some of the foreigners were unintentionally amusing. The band by some strange vagary played 'God save the King' not only for England but also for Sweden & Switzerland. We were done just about 11.45 ... There are not a few points which I would like the BDA to imitate. We got to bed finally about 1 am to sleep the sleep of the just – as indeed has been our invariable practice since we left England.

This morning the sun shone brightly & after breakfast in which a large slice of melon figured we went to the demonstrations. I had my nails manicured by a most charming young lady in the barber's shop while Wood got his hair cut & was instructed to come back again on Saturday. The demonstrations were very good. I looked at several but was mostly concerned with the organization. At 11.30 Wood & I found a party going by motor to the Oriental Beach Club on Long Island Sound about 30 miles away. We were invited

11 William MacPherson Fisher, LDS RCS (1877-1938). Qualified in Dundee, practised in Dundee and Cambridge. Pioneer in school dentistry. In 1885 and 1890 reported on the condition of schoolchildren's teeth.

to buy bathing suits & tennis rackets. Again we ran through the same interesting country but this time in bright sunshine & through an even more bewildering assortment of freak buildings & villages till we reached the Sound. The whole place is devoted to pleasure & the Club at which we arrived seems to be one of several. Imagine a most wonderfully convenient low built house in charming grounds by the sea shore, tennis courts & many other means of enjoyment, a beautiful sandy beach – actually artificial for the coast is rocky & the sand had to be fetched here. A wealth of boats, canoes, diving platforms & beyond ... a low range of wooded hills on the other side of the Sound.

We had the usual splendidly served lunch immediately on arrival & were then invited to make ourselves entirely at home & use the Club & everything in it at our will. The air was fresh & after the long drive & the lunch none of our people at first went to bathe. I decided to abstain but we had a demonstration of swimming & diving by some of the best swimmers among the young members. You can imagine the scene. A big barge anchored in the bay thronged with young people of both sexes in bright & diversified bathing costumes. Family parties bathing from the shore. Some of the races were very exciting & most of the diving beautiful & graceful to a degree. Russell Barnett,¹² Maxwell Stephens,¹³ Parrott¹⁴ & Walker were our only bathing representatives. We left for home again about five after a most enjoyable day. Whatever failings the Americans may have they are perfect hosts & they show us much of how these things should be done. I am rather aghast at it all nevertheless. These people seem to look upon all this as quite normal expenditure. It must be good for the children at any rate & there appeared to be plenty of them & one gets the feeling in looking at all classes that they get more out of life – if this is life than we do. The workmen as we went along were stopping for their midday meal & were going in groups up on the grass beside the roads with much more attractive looking fare than we see in our country at similar times. We watch with great interest the workmen on a big new building going up alongside the hotel. It is to be 44 flats high. Many of the men handling the iron work have gloves on ...

12 Probably Walter Russell Barnett of London.

13 Bernard Maxwell Stephens, FDS RCS. Leading maxillofacial surgeon in London, notably in 1914-18 War, and a specialist in orthodontics.

14 Arthur Hughes Parrott, OBE, LDS RCS, BDS, LDS (?-1942). On staff of Birmingham Dental Hospital; one of the first in 1903 to obtain the new BDS. Appointed OBE for work in maxillofacial surgery in 1939-45 War. President of Central Counties Branch of BDA, 1920. Introduced intra-osseous anaesthesia and invented a syringe for the purpose.

Letter, 21 August 1926

The Commodore

We jump off tomorrow morning for Philadelphia & so comes to an end our first experience of an American city. On the whole we are not sorry to go nor that we came. We have seen much that interested us & some things well worthy of imitating. The last two days have been given up entirely to sight seeing. Friday was consumed by the Public Library, the Metropolitan Museum & the Woolworth building, the evening finishing with a theatre, a genuinely American show this time called *The Vagabond King*. You ought to get a postcard which the enterprising management hands round during the performance inviting the members of the audience to address it & undertaking to stamp it & send it off... The Metropolitan Museum is a fine building. Marble is everywhere & the various millionaires have been generous. I never saw anything anywhere like the perfect Roman glass which they have & there are some gold filigree necklets, earrings etc. which are almost miraculous in their workmanship. And the pictures they have. A wonderfully good *Grand Canal* by Turner as well as Corot, Daubigny etc. etc. We spent a most enjoyable morning there & could have spent a day. We went down to the restaurant for our lunch, a most interesting experience. Taking up a metal tray on which are a napkin, a spoon & a knife & fork, you enter a pathway in front of a counter on which are arrayed all sorts of dishes of food. I had a potato salad, brown bread & butter, cheese & biscuits, a kind of pickle, a pot of coffee & cream & might have had almost anything else I fancied. At the other end of the way a young lady glances over your tray, gives you your check, you pay & carry your food away to a table. This is very general throughout New York...

We were in a most beautiful Roman Catholic church this morning resembling very closely those we saw on the Continent except in being scrupulously clean & having nothing tawdry in any of the chapels. There was a wedding in progress in the apse behind the altar. This is my only ecclesiastical excursion. I have missed to my great regret the Cathedral of St. John the Divine which is I believe Episcopalian...

We had peach ices tonight at dinner which were as good as anything in that line I ever had. How would you enjoy eating a fruit salad with fish? We did that last night, with coffee also. In this country the most weird mixtures go together & nobody seems surprised. I shall always look back on the feeding with pleasure. The hotel is in that respect most efficiently organized. You would enjoy the extraordinary variety of choices which one gets at any meal...

Now darling for yourself. Thank you for all your letters. I shall look

for more at Philadelphia & I hope by this time the lot I sent on after landing are well on the way to you. It is so confusing to think that such a distance separates us. Sitting watching the tennis this afternoon I could have fancied myself in England & being surrounded by English-speaking people helps to eliminate the feeling of distance. It is only when I realise that the letters I posted last Sunday are still probably far from you. Still I am not — there is no distance between us. You are ever in my thoughts & I judge all these strange things I see by what you would think of them...

Letter, 28 August 1926

On board the *Lancastria*.

Homeward bound 12 hours out from N.Y.

America is a retrospect. A pleasant & instructive one. The narrative halted badly in the rush of New York. It halted absolutely in the whirlwind of the Quaker City. The attempt to put a quart into a pint pot is child's play beside the attempt to see & hear in five days the sights & sounds that for the human eye & ear would require five weeks... The American railway system is like the figure in Nebuchadnezzar's dream, partly of fine gold & partly of clay. I like the cars such as we saw & travelled in from New York to Philadelphia. It seemed to me that they were more comfortable, spacious & steadier than on our long distance rolling stock. The height & simple roof decoration interiorly are certainly better. The service of breakfast in a small compartment at the end of our car by a single Negro was doubtless due to a recognised small demand. He did uncommonly well in the circumstances. I believe some of our men dined on returning in a full-sized dining car. The general feeling of the line reminded me greatly of France.

The engines are of the same large complicated build. They are equally dirty & uncared for in appearance. The stations are certainly inferior to ours except the booking halls & offices of the great termini. These are beyond praise but the platforms alongside the tracks & the general method of despatch are inferior. The country is very varied in appearance, sometimes charming like our South of England counties, at other times horrible with swamps, great industrial works & advertisements. The villages & small towns as a rule scrappy & untidy in the extreme. The wooden houses which are general outside of the great towns are very often of a debilitated constitution. So far as this particular section is concerned the contrast with England leaves it far behind. So much for the railroad as we saw it.

Philadelphia does not grow on one, but perhaps it was unfairly denied the opportunity. The daily double journey from the Bellevue Stratford to the

Commercial Museum & back was hardly a typical section study. Traffic on account of the narrow streets is even more congested than ever. Many of the streets are 'one-way' streets & all are neglected to an extent as far as paving is concerned that would shock the local authority of an obscure English county town. In this respect Philadelphia is a very good second to New York. The coloured element in the population is more evident here than in New York I think. Our way to the Museum took us sometimes through a quarter which seemed almost entirely devoted to the Negro element & the sight was strange to a European. The streets & houses looked squalid to a degree not surpassed by a first class London slum. The street car system is good. One enters by the driver's situation at the front of the car & the one exit is past the conductor in the centre where the fare is paid. No tickets are given. He pulls a string & the fare is registered on a dial & a bell rings. Travelling seems a little more expensive here. The taxi cabs start at 30 cents but the method of registration of the fare & the use of a typed statement pulled from the registering box & handed to the passenger is a distinct improvement on the London system. The drivers we met were uniformly courteous & good natured. Women drive the public taxis here. I had one very efficient & smartly dressed. The Bellevue Stratford is a smaller hotel than the Commodore at least as regards the number of floors & bedrooms. 17 floors however is not bad, the top one being a roof garden restaurant where we lunched & dined frequently with great enjoyment. The view over the city was superb. The food was most excellent & the service pleasant. The canaries sang in alcoves here as at New York but they were much fewer in number. The public rooms of the hotel surpass anything I have seen anywhere. Marble everywhere & gorgeous furnishings & equipment. The organization however was inferior to that of the Commodore. This showed particularly in the case of the lifts. The group of five in the main hall was never fit for the work imposed on it while the pair in other corridors were almost uniformly empty. Our floor check experience was likewise a disappointment after New York. None of the cheering badinage we had there but sedate ladies whom it was injudicious to joke with. That I find is a serious defect of the American character. The subtler forms of humour do not get over while they simply lap up anything suggestive of admiration for their great country even when it is almost patently too thick.

We went to Wanamaker's several times. I think it beats Selfridges. The arrangements for food are certainly superior. The great square block is delightfully simple in its floor arrangements & seems almost perfect in its organization. The trouble is that one might almost as well buy things in Regent Street. Everything of any importance & value is European. We encountered a delightfully simple system in one entrance of dealing with umbrellas. You slip the umbrella into a stand, pull out a brass check numbered & the umbrella

is locked there until you return & re-insert the numbered check thus releasing it. Wood went to the silver department for a small photograph frame & looking round for an attendant we encountered a slim young man in an ordinary light lounge suit wearing a straw hat. I took him at first for a customer but he asked us casually did we wish a salesman. Wood said he did & he slipped away a few feet & produced one. After the purchase was complete the salesman drew our attention to a large case in which were some sets of diamonds & pearls, particularly to a large pearl necklace in the centre which he said was worth some fabulous sum in dollars, what I forget. We admired it & I noticed our friend in the straw hat with a similarly dressed companion lounging carelessly against an adjacent case & realized that they were detectives in charge of that department...

About 30 of us listened to the opening address which was not specially notable & the subsequent papers were not up to what we had expected... On the afternoon of Monday we visited other sections.

Picture a great hall 500 feet by about 300 broad & 60 high pin & tuck in construction. All down one side a series of rooms had been constructed, each about 60 feet by 30. Each had a table, platform, reading lamp, blackboard & lantern screen & a lantern. Auditorium furnished with chairs. Ice water on the platform. Unfortunately the exterior noise was imperfectly excluded & in many cases the men giving the papers did not understand how to read a talk. In many cases it was quite impossible to hear them & in all cases it was a severe strain. The attendance varied one or two were crowded, others had from 20 to 30, others less, some had none but the officers & the paper reader. Thin notably in History & Legislation.

Outside of these rooms there was a wide space of some 50 feet for moving about there. The whole centre was taken up with the trade exhibits, on the other side corresponding to the rooms where the papers were being read were the dental school exhibits & at the bottom the public health & school clinic shows. The top where one entered had the registration office, Post Office & other administration rooms. A very well arranged show but too big. The motion pictures were in an adjacent room.

Now for the opening ceremony of the Congress which was preceded by the formal banquet to the Government Representatives & Honorary Officers of Sections... The dinner was excellent in its way. When such a banquet is staged, Salmon Mayonnaise followed by some preparation of chicken seems inevitable, then an ice which in these particular functions was the 'Liberty Bell' ice. Not a very good specimen. The soup served in small cups & in one case cold tomato was very good, the coffee is of course excellent & the grapefruit very pleasant. The hotel people served the dinner very well. Then we made our way to the Academy of Art which is a large theatre near the B.S.

hotel. The National delegates, Government Representatives & State reprs. had tickets for the stage. Ladies & other privileged persons were admitted to the boxes. Here on the stage was the most tragic instance of bad management. The Government representatives were to be in the front seats but although cards had been put on these seats bearing the names of the countries, no explanation had been given to anyone & a scene of great confusion ensued when about 200 people walked among the chairs. Many who had no right there sat in the front seats ... Meanwhile Logan the President was making futile attempts to clear up the tangle by calling in a voice not sufficiently audible for the various representatives & trying to get them into the right places, then he tackled the same job for the various States. All this time on the other side of the curtain the patient audience was awaiting the beginning kept in some measure of good humour by occasional performances of the orchestra. Up went the curtain about an hour late ...

Wednesday afternoon was named for the History papers. I went there in the morning for a bit to get the atmosphere ... I heard Weinberger¹⁵ on Libraries in the afternoon. He is a younger man than I thought & obviously a bit of a Jew. His paper was quite interesting & I spoke on it.

Then I came in with Payne & Matheson. I read the summary, well I think, & explained the lantern slides. They were very kind in their thanks but seemed determined to consider the abstract my work. It was a small meeting. Rain was coming down in a deluge outside & I stood just under a leak in the roof... Wood was awaiting me but we decided not to go the drive round sight-seeing. Instead we spent the time in the Schools department which was very interesting. The kindergarten scheme of teaching preventive dentistry seemed to me particularly good. Examined with great interest Weinberger's exhibit of old books etc. Noticed Mrs. Lindsay's reprint of Charles Allen with a commendatory note on the description card. He showed me some of his work & spoke appreciatively of the BDA Librarian. Wanted a copy of our bookplate. Met very many nice people ... Saw some very interesting exhibits of books, instruments & plates, pelicans seemed fairly plentiful. Saw the plates made by Greenwood for George Washington, also an upper molar said to have been extracted by Wooffendale for George III. Among the interesting men I met was Black¹⁶ of the North West University with whom I talked for a little on

15 Bernhard Wolf Weinberger, DDS (1885-1960). A New York dentist and author of numerous papers on dental history and of *Orthodontics: An Historical Review and of Introduction to the History of Dentistry*, both in two volumes.

16 Arthur D. Black, AM, MD, DDS, DSc (1870-1937). A great organiser of dental societies and of the American Dental Association. Originator and Editor of the *Index to Dental Literature*. Like his father, Greene Vardiman Black, became Dean of the Northwestern Dental

the subject of the *Index* ... There is a great scheme to get a series of busts for a hall of fame & Tomes' bust is naturally in demand. I mentioned the existence of a possibly 'Tomes' bust in the BDA library & promised to assist in any attempt to get them a replica. The Trade Exhibit was of course interesting & needless to say very efficiently & completely organized. I hardly looked at the stalls however except to note their organization. I noted the USA Navy exhibit with interest... The Oral Hygiene section certainly suffered in being a few hundred yards apart but otherwise so far as accommodation was concerned it was much superior to the others. We met in a very fine little theatre attached for teaching purposes to the Commercial Museum. It was beautifully built & equipped for lectures & the only drawback was its isolation resulting in small attendances. We had an Oral Hygiene lunch at which about 200 attended. There were the inevitable speeches, one of which I contributed ...

The Clinics on Friday were interesting to me especially for their organization ... We have nothing to learn in this respect. Our method of putting the demonstration inside a pen so as to keep his audience from pressing upon him is better than theirs. Also the numbers were not high enough to be readily seen over the heads of the people. And so the greatest meeting of dentists ever convened & carried to a successful conclusion came to an end. Presumably there were certain closing exercises but we left these. There was also a ceremony at the University when - as the papers had it - the five chief dentists in the world received Honorary Degrees, which we missed. A hurried scurry round to try unavailingly to pick up some presents which ended in four pounds of candy & we were off in a heat which was increasing to stickiness for New York...

The embarking formalities were easily concluded & we were aboard by 8.30. Our cabin was not the luxurious experience of the Caronia but nevertheless is very comfortable & we settled down at once to be quite happy. I saw the start & it was well worth seeing for the harbour even at 12.10 am was animated & the skyscrapers were many of them ablaze with light. Colgate saw us off with an electric sign & the light of the Statue of Liberty was a small part of the entertainment. The Berengaria was alongside the next pier. She will sail on Wednesday & get into Southampton when the Lancastria reaches London. We started dead on time with a small complement of passengers & were going full speed out to sea when we retired at 1.30. Wood tells me he saw the pilot dropped at 2 am but I was asleep & awakened about 6 to a glorious morning & America out of sight astern. And so Eastward Ho for Britain with a good will. The Lancastria is a very fine boat with most

Continued ...

School in Chicago.

ample & luxurious accommodation for her cabin passengers. Saturday was one of the most beautiful we have experienced. Brilliant sun, blue sea, almost cloudless sky, with everyone settling down for the week. Quite different set from those we came out with though there are still not a few Americans. A smaller dental contingent ... I had the Association badge from Badcock before we left Philadelphia & deposited it with the Purser on Saturday morning. The table is not quite so liberally furnished here as on the Caronia but amply gorgeous for my simple needs. The stewards & officers are nice. I talked with the Captain for half an hour last night...

Again a solid night's sleep with hardly a motion to indicate that we are running at 16 knots south-east across the Atlantic. She is of course an oil burning ship & driven by turbine so the very mild & subdued thud of the Caronia's reciprocating engines is absent. The whirr of the electric motors driving the fans which are a feature of the ship is the only noise we hear. These Punkalites as they are called are distributed generously all over & keep the cabins delightfully cool. Our window looks straight out to the water & is round. On the Caronia we opened on the deck & the window was square. A deck here is entirely taken up with the cabin lounges, writing & smoking rooms & gymnasium & these are most beautifully furnished. The windows are exactly like those of a house with sashes & snibs. The interior with beautiful chintz curtains & the usual dainty furniture. The electric fire has that arrangement which shows a large red glowing surface with no heat. The dining rooms are large; only one sitting is served as there is room to seat all the cabin passengers at once. The after-dining room not used on this trip served for Church this morning at which there was a large attendance. I went, so, I noticed, did Northcroft & Bryan. The first officer I think it was who took the service & we of course had the band for the music ...

Again sea a beautiful blue & warm sun, more clouds about however. The Majestic passed us this morning. She left on Saturday but making 26 knots to our 16 has soon outstripped us. Otherwise a sailing barque has been our only break in the solitude. Oh the beauty of it all. I chaff the others on their insensibility to it due to their concentration on deck tennis which started promptly yesterday morning & is going on in full swing today ...

Diary, 31 August 1926

The voyage home although promising to resemble the voyage out has yet its desirable differences. First the Lancastria is a smaller boat & her deck & internal arrangements necessarily different. Then the complement of passengers shows all the difference between 130 & 460 ... We were hardly on board before the first sweep on the run was organized & I as in coming out got the first day's prize \$2.50. Nay more - I repeated that luck today. Yes-

terday gave us the promise of rough weather, the sun was veiled in the morning but the forenoon passed pleasantly. At dinner on Sunday night, the ports having been injudiciously left open, a party on the weather side got an unexpected drenching & so at lunch all the ports were closed & every now & then a green sea swept up & along giving one a sense of the massive power of an Atlantic wave which even a study from the deck failed to do. The water came aboard however & the ship only pitched & rolled in a dignified manner while a small tramp on the horizon, the only vessel sighted that day, almost disappeared with the exception of her funnel & bridge at every roll. We had the added treat of a fine thunderstorm & display of lightning...

2 September 1926

A fog at sea is a damnable thing. That is, when it lasts. A few minutes running through patches of fog when there is nothing more serious than 'stand by' in the engine room & the foghorn is a diversion of a dozen blasts or so is tolerable - but to be awakened at 1.45 am by the infernal thing & to realize the check to the speed & to feel the damp cold in your berth is quite different & when the minutes are ticked off till about noon by the nerve-shattering roar above one's head all morning, punctuating the conversation & influencing it largely, the grim seriousness of the practice is appreciable. I fear I am a callous person. I did not awake by any means at the first blast so Wood tells me & I went to sleep with the noise still in my ears. It made everyone late for breakfast & slow in getting on the move & kept us half-asleep all morning. The sun made a brave attempt to get through overhead & once or twice nearly succeeded but low over the water the grey circle closed in around us & the bow lookout was the furthest we could see for a while. Happily there were no answering blasts. The peculiarity of this ship has been that we have practically seen no vessels since the Majestic passed us & I suppose we are too far south. Nor is it the season for ice. I could see three heads, probably anxious ones, over the screen on the bridge & the skipper did not come down to lunch. Happily it is clearing & the foghorn has ceased. Again today - for the third time - I have won the sweep on the run...

4 September 1926, & the last

The home seas welcome us in characteristic fashion, grey fog & a drizzle of rain. We might be in the Firth of Forth. The passengers are late for breakfast this morning after the night's revels but these justified some relaxation by their success. The Lancastria fancy dress dinner & dance outdid that of the Caronia by far & table 22 outdid itself for dishonest men & bonnie lasses, Shylock, Captain Hook & Don Q. not to mention the miner on the male side, Kathleen Mavoureen & Portia, especially the latter, on the other.

The table pulled off one prize. Don Q. was a marvellous make up & took himself quite seriously & he got only his deserts in being selected. The Irish colleen was the prettiest sight on the ship & Portia only missed all the prizes by winking at the judges as she passed. Shylock was a wonder of facial makeup & Captain Hook was joyously recognised by the children although American grownups did not seem to catch on. The miner fascinated the boys. All the same, the others were worth looking at. The penguin for originality & effectiveness deserved first place & the scarecrow earned his money. So did the Spanish beauty & a dozen others at least might have been placed. It was quite a brilliant affair & the dance lost nothing in picturesqueness by being on deck with coloured lights. It must be hard work masquerading. Wood & I slept the moment the lights were out & accomplished the record of being last down to breakfast at 8.30. The only other signs of the evening's dissipation apparent this morning were the absence of the Dental Secretary's moustache sacrificed on the altar of good fellowship the evening before ...

* * *

So ended Robert Lindsay's detailed diary and letters to his beloved wife, which she treasured to the end of her life. 'With love and a kiss' was his invariable ending. Her letters to Robert have not survived. The companionship, shared interests, delights in small absurdities and above all the deep affection of the Lindsays shine through these excerpts from Robert's letters.

LANCASTER: AUTUMN 2001

Geoff Garnett

Just over twenty members of the Society assembled at 9.30 am on Saturday, 29 September at the Royal Kings Arms Hotel, Lancaster, for the AGM and Autumn Conference. Appropriately the hotel itself is almost in the shadow of Lancaster Castle and Prison. As usual the Lindsay Society had selected a venue of considerable interest, well supplied with buildings of historical and architectural significance. Saturday afternoon is traditionally left free for 'field-work'. Members were found touring the Castle itself, the Priory, Judges' Lodgings and the recently opened Maritime Museum before gathering for a convivial dinner together on the Saturday evening.

Henry Noble and Rosemarie Khan are to be congratulated on arranging such a successful and stimulating weekend. The four lectures were of great interest and delivered by people with a great passion and enthusiasm for their chosen subject. Three of the papers delivered are published in this issue of the *Dental Historian*, but a brief synopsis from one of our listeners may encourage attendance at the next conference. It is planned that this will be held next year in Edinburgh.

'Doc. Holliday: Gun Totin' Dentist of the Wild West' was the opening lecture of the proceedings, and Dr Rufus Ross put Holliday, Dentistry and the Wild West into a factual perspective. John Henry Holliday, DDS (1851-1887) was born with a cleft palate and harelip. He and his family had been on the Confederate side in the Civil War and he suffered from pulmonary TB, again a family weakness. He entered the Philadelphia School of Dentistry on payment of one hundred dollars in 1870. From the details given about his work as a student he was clearly quite well trained and competent when he qualified at age twenty-one. His practice was carried out mainly in hotel rooms, and began in Atlanta and ended in Tombstone. Doc. Holliday was clearly that bit smarter than most of his gambling contemporaries, in that he exercised sound judgement by usually shooting first when an altercation arose. Our profession has always attracted some talented, if very individualistic, members and it was good to hear Holliday re-appraised and placed in the context of his generation and surgery conditions.

John Sandham followed this with details of his painstaking research into 'General Dental Practice in Lancaster 1800 to Today'. John gave us a general introduction to the town of Lancaster itself, which proved useful for the exploration of the museums mentioned earlier. A significant town due to the Assizes, the port prospered as a result of the slave trade. Imports of mahogany allowed the development of Gillows as one of the country's leading furniture manufacturers. Williamson prospered in the days of Empire with the production of linoleum, and Storeys carried on the tradition with acrylics and polymers. Williamson was later ennobled as Lord Ashton and his copper-roofed dome towers above the town itself. It is a noble edifice, easily observed from the M6 motorway. John had tracked down early advertisements from local directories, and the development of the profession mirrored that of many provincial towns. His talk was illustrated with slides of local buildings used as surgeries in the past and still to be observed around the town today.

G. Stuart Taylor entitled his talk: 'The Transactions of the British Society for the Study of Orthodontics - The Early Years'. The somewhat dry title concealed a very interesting analysis based on the opening addresses given by the first ten Presidents of the BSSO, which was founded in 1908. Their names were a roll call of some of our more eminent predecessors. Badcock, Northcroft, Bennet and Campion, to name but a few. The breadth of their interests was truly amazing, and the point was emphasised that over-early specialisation today will surely leave the profession the poorer for it.

The controversy over extractions for orthodontic reasons was alive and flourishing, calibration of various structures during development was promoted and a general view of a progressive and innovative profession was expounded. An example of this was surely the fact x-rays were used in dentistry as early as 1896, when Roentgen had only demonstrated them in 1895.

Dr Margaret Wilson had chosen for her lecture, 'A History of Dentistry in Manchester'. More accurately, she gave a most stimulating history of the development and vicissitudes of the Manchester Dental School. Her talk was illustrated with many slides, but the subject really was fascinating when Margaret explained the jealousies, envy and skulduggery involved in the birth of the school. The school is still referred to as the Turner Dental School due to the munificence of Samuel, and later Rupert Turner, who endowed the school in the thirties and forties of the last century. Turner (of Turner and Newall) had an immense fortune, based on asbestos production in South Africa and cotton manufacturing in Rochdale. We were brought up to the present day with pictures of the new post-graduate centre built on top of the existing building.

Grateful thanks to all our lecturers were expressed by all participants in a very excellent conference.

LINDSAY SOCIETY FOR THE HISTORY OF DENTISTRY

CONSTITUTION

(As amended at the 38th Annual General Meeting, 1 October 2000)

Article 1 Name

The name of the Society shall be The Lindsay Society for the History of Dentistry, in memory of Lilian Lindsay and her work in the field of dental history and literature.

Article 2 Aims

The aims of the Society shall be:

- a) To promote interest, study and research into the history of dentistry.
- b) To bring together members of the dental profession and others sharing this interest.

Article 3 Membership

Membership of the Society shall be open to:

- a) In Great Britain - members of the British Dental Association, dental students and other interested persons not dentally qualified.
- b) In other countries - all dental practitioners and other interested persons not dentally qualified.

Members attending the inaugural meeting of the Society on 18 October 1962 shall be founder members. Thereafter members shall be proposed and seconded.

The Committee of the Society shall have the power to recommend for Honorary Membership persons distinguished in the fields of the history of dentistry, medicine, science or the arts. Such Honorary Membership to be confirmed at the Annual General Meeting by the members present.

Article 4 Committee

The Committee of the Society shall consist of a Chairman, a Chairman Elect, a Secretary, a Treasurer, an Editor and three other

elected members.

The Chairman shall hold office for two years.

The Chairman Elect shall be elected one year before taking office as Chairman.

The Secretary, Treasurer and Editor shall hold office for three years and shall be eligible for re-election.

Members of the Committee shall normally hold office for three years. However, each year, one of the three elected members of the Committee shall retire and shall be eligible for re-election. A quorum shall be four members of the Committee.

The Committee shall have power to co-opt one or more additional members for periods of not more than one year.

Article 5 Meetings

The Society shall hold at least three meetings each year, one of which shall be the Annual General Meeting. One of these meetings shall be held at the annual conference of the British Dental Association whenever possible.

Article 6 Subscription

The annual subscription shall be an amount determined annually, subject to agreement by two-thirds majority at the Annual General Meeting.

Article 7 Amendments

The Constitution may be amended by a two-thirds majority of members present and voting at the Annual General Meeting, provided that the proposed amendment shall have been submitted in writing to the Secretary at least twenty-one days prior to the meeting.