In this paper Sir John Tomes HonFRCS LDS FRS (1815–95), surgeon-dentist, is presented as the agent through whose membership of the Royal Society the previously disorganized profession of dentistry shared in the process of reform and scientific progress that engaged the medical profession in the second half of the nineteenth century. The study identifies 70 of the Fellows of the Royal Society who were involved in medical and dental research and/or who gave structure and effect to the governance of the medical and dental professions. In recording the education of Tomes as a scientist, his election to the Society and his place in the process of reform, the paper identifies the Royal Society as a superculture, enabling him to act at a functional remove from the cultures of the surgeons and the dentists of the day.

**Keywords:** Fellows of the Royal Society; Sir John Tomes FRS; Licentiateship in Dental Surgery; nineteenth-century reform in the dental profession; medical governance; superculture

In 1841 the eminent surgeon-dentist George Derby Waite MRCS (1804–80), who had been surgeon-dentist to members of the Imperial Court in St Petersburg and whose father had been surgeon-dentist to King George IV when Prince of Wales,\(^1\) was so concerned about the state of dentistry in England that he sent an ‘Appeal’ to Parliament.\(^2\) He said, ‘As it now is, dentistry can be considered no profession; a person, however illiterate or uneducated, may commence practice; and society being unprotected, there is no reason why he may not be consulted.’ He continued, ‘it seems extraordinary that in this great capital, the most enlightened in Europe, and in this age of advanced science, such charlatanism should not directly be checked . . .\(^3\)

Several dentists sought to rectify this situation, but there was no agreement on ways and means, and two opposing factions emerged, illustrating all too clearly something Waite had

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also said: ‘Among dentists, at present, no cordiality exists.’ One group, very much the larger, was headed by an inspirational young dentist from Croydon, Samuel Lee Rymer. This group was democratic and sought to work from within the profession to establish an independent College of Dentists on the American (Baltimore) pattern. Alfred Hill (1828–90), upon whose book The history of the reform movement in the dental profession in Great Britain during the last twenty years (1877) this account draws extensively, settled on describing Rymer’s group as the College party, and the other faction (which had close associations with the Royal College of Surgeons (RCS)—hence some potential for confusion) the Memorialist party.

The Memorialist party was small in number. It was undemocratic and elitist and sought influence outside the dental profession through memorials (hence Hill’s name for them) addressed to the RCS and Parliament. These ‘Memorialists’ did not ignore progress in America and when, as described below, they approached Sir James Graham FRS (7) (numbers in parentheses after the first mention of names in the paper identify Fellows in order of seniority in the Royal Society, as listed in Appendix 1 in the electronic supplementary material) and later the RCS, they drew attention to American success as an example of what the training and examination of dentists could achieve. They did not, however, see the American model as the one for British dentists to follow.

This paper is concerned with the second, ultimately successful, group, the Memorialists, and in particular with Sir John Tomes FRS (figure 1) (34), who came to be identified as the most significant agent within it. If, in Waite’s opinion, ‘first rate science has been confined to a limited few’, Tomes, who had commenced practice as a dentist in 1840, was one of those few. Although driven and able, he could not act alone, and this paper demonstrates the extent of the involvement of Fellows of the Royal Society in the reform of dentistry in the nineteenth century.

FELLOWS OF THE ROYAL SOCIETY AND TOMES THE SCIENTIST AND DENTIST

Dentistry was not Tomes’s first choice of profession. He had served an apprenticeship to Thomas Furley Smith, an apothecary in Evesham, before coming to London as a student at King’s College with the intention of walking the wards at the Middlesex Hospital in pursuance of his medical training. There he found himself to be in both congenial and inspirational company, where scientific research, and in particular histology, was being vigorously pursued. So interested and involved did he become in dental research that he took only the intermediate Membership examination of the RCS and did not attend the Apothecaries’ Hall.

In his microscope work on bone and teeth he was encouraged by Professor (later Sir) Richard Owen FRS (9) (with whom Tomes later fell out, and who did not sign for him). On 14 June 1838, when he was 23 years old, his first paper, on the microscopic appearance of human and animal teeth, was read to the Society by Thomas Bell FRS (5), surgeon-dentist and lecturer on dentistry to Guy’s Hospital. In time, Tomes held appointments at both King’s College Hospital and the Middlesex Hospital (figure 2), delivering A Course of Lectures in Dental Physiology and Surgery, which were published in 1848, and contributing a section on bone to the Cyclopedia published by Robert Bentley Todd FRS (13).
In about 1840 Tomes wrote, 'Mayo [Herbert Mayo FRS (6)] offered me a lectureship upon anatomy and physiology, which I refused... I will never lecture upon any subject except teeth, and something relating to them, and not upon that at any place inferior to Kings.' It had been a natural development when in that year James Moncrieff Arnott (22) and Dr Thomas Watson (37) (neither yet FRS) suggested that Tomes adopt dentistry as a career. For a man who so much enjoyed the mechanical as well as the scientific arts, this was an inspired choice, and Tomes was immediately successful, establishing his dental practice in Mortimer Street. He was one of the first to administer general anaesthetics, and demonstrating a practical aptitude well above the ordinary he designed anatomical forceps and other dental tools and machinery. As the other main source for material for this paper, Sir Vincent Zachary Cope (1881–1974), says, the practice gave Tomes substantial financial reward as well as bringing him into contact with men of influence.
In 1844 Tomes married Jane Sibley (1824–1904), the daughter of an architect, and their long marriage, although clouded in 1848 by the death of their three-year-old son from influenza, should also be considered a factor in his success. Jane’s brother Septimus William Sibley FRCS (1830–93) was the successor to Tomes’s friend Campbell de Morgan FRS (39) as Chairman of the Managing Committee of the Dental Hospital of London (established by the Memorialist party). He was the first general medical practitioner to be elected to the Council of the RCS, and served on the Parliamentary Bills Committee of the British Medical Association. 18

While building his practice, Tomes continued his research with vigour and to good effect. His 1849 paper on the structure of marsupial teeth was presented to the Society by Professor Robert Edmond Grant FRS (11), and his next paper on the microscopic structure of rodent teeth was presented for him on 30 May 1850 by his friend and colleague William Bowman FRCS (20). Less than a month later, on 10 June 1850, he was able as a new Fellow (elected on 6 June) to present his important paper on the structure of bone himself (figure 3). This paper was a collaboration with de Morgan (younger brother of the mathematician Augustus de Morgan), for whom in turn he was to sign.

It is a reflection on Tomes, and on the encouragement that he had received in his 14 years in London, that 20 Fellows signed for him, 12 on the basis of personal knowledge: Gideon Algernon Mantell (4), Edward Gray (8), F. Kiernan (10), John Richard Partridge (12), R. B. Todd (13), Chas Woodward (19), Wm Bowman (20), John Gould (21), Erasmus Wilson (26), George Newport (28), R. G. Latham (31) and Wm Fergusson (32). Tellingly, eight Fellows signed on the basis of reputation: B. C. Brodie (1), Robert E. Grant (11), George Gulliver (14), W. Sharpey (15), G. Mackmurdo (16), T. Wharton Jones (17), James Booth (27) and Chas Brooke (30) (figure 4). 19 In addition to these signers, Hill, Cope and Schelling20 between them mention, as influences on Tomes, William Benjamin Carpenter FRS (23), Edward Forbes FRS (25) and Thomas Henry Huxley (38). The notes for these and for the Fellows who signed for Tomes, listed in Appendix 1 in the electronic supplementary material, show the range of their activities.

Tomes’s final paper read to the Society was to give him a lasting name in the eponymous ‘Tomes fibrils’, the soft tissue within the dentinal tubules of teeth. This was his research
swansong, after which he handed on that side of dentistry to his son (Sir) Charles Sissmore Tomes (44), who was in his turn elected to the Fellowship of the Royal Society in 1878.

FELLOWS OF THE ROYAL SOCIETY AND TOMES THE POLITICIAN

Arnott had not just pointed Tomes in the direction of dentistry as a career; he had given him a cause:

Although one of the last survivors of the old regime, he [Arnott] was ever ready to adopt new ideas and reforms. Aided by the suggestions of his former pupil and house-surgeon, Mr. John Tomes, he did much to establish the licence in dental surgery, by which that department of practice has become a recognized branch of surgery.21

Progress was hesitant at first. In 1843 Sir James Robert George Graham Bt PC FRS (7) MP, the Home Secretary, introduced a Bill with the intention of effecting reforms to the charter of the RCS, and the Memorialist party in which Tomes was already active saw an opportunity to add a dental clause of their own. They duly approached the President of the College, Mr Anthony White, but received only lukewarm support. Mr White stated that those members
Certificate of a Candidate for Election.

(N.B. Directions for filling up Certificates are given on the other side of this leaf.)

(Name) John Tomes

(Titl or Designation) Lecturer on Dental Physiogy & Surgery at the Metropolitan Hospital

(Profession or Trade) Dentist

(Usual place of Residence) 41 Mortimer St. Cavendish Square

The Discoverer of

(1) The article “On the Relations of Osteous to Dental Structure” read before the Royal Society June 1839

(2) An article “Osteous tijd” in Dr. Todd’s Cyclopedia of Anatomy & Physiology

(3) A work of lectures on Dental Physiology & Surgery, published in the medical gazette 1845, 1846, & 1847 (in three separate volumes)

The Author of...

The Inventor or Improver of

A machine for chewing, for which the Society of Arts awarded a Gold Medal

Distinguished for his acquaintance with the science of Anatomy & Physiology

being desirous of admission into the ROYAL SOCIETY OF LONDON, we, the undersigned
propose and recommend him as deserving that honour, and as likely to become a useful and
valuable Member. Dated this 5th day of December 1848

From General Knowledge.

From Personal Knowledge.

[Signatures]

* If of no Profession or Trade, this should be stated by filling up the blank with the word None.

Figure 4. John Tomes’s certificate of candidacy for election. Royal Society EC/1850/20. (Copyright © The Royal Society.)
practising exclusively as dentists were *seceders*, and he begged that the whole group would not memorialize the College but would divide themselves into those who were Members, who should address to the College a letter stating their regret at the lack of a legal qualification for dentists, supported by as many names of unqualified dentists as they could muster.  

This division the dentists were not prepared to accept. Through the good offices of Sir James’s brother, Major Graham, who was a patient of one of the group, Arnold Rogers, a memorial prepared by Rogers, Mr Stokes and John Tomes and signed by eight other dentists, headed by Samuel Cartwright FRS (18), was delivered to the House. In the event the Bill was withdrawn because ‘Sir James Graham had given up in disgust at professional infighting…’ Similar infighting was later to hamper progress in dental reform. In Tomes’s own words, ‘The wretched state of antagonism and false pride was a sad hindrance to any unity of purpose in amending professional education.’ The lessons that should have been learned from this failure, for Mr White was in fact giving sound, if unwelcome, advice, were not heeded, and it was a dozen years before the next attempt was made, after the inauguration of a new President of the College of Surgeons, Sir William Lawrence Bt FRS (2), who was to prove another good friend to the dental profession.  

A fresh memorial was sent in October 1856 by a group of 18, who did ‘beg to submit to the President and Council of the College of Surgeons, whether an examination in the department of dental surgery, as in midwifery, might not be instituted.’ The signatories to this document included Samuel Cartwright FRS (18), as the first signatory, John Tomes FRS (34) and S. James A. Salter (41) (nephew of Thomas Bell). The memorial did not go down well with the profession at large, and especially not with Rymer’s College party. Alfred Hill, at the time Honorary Secretary to the College party, wrote that he had  

\[
\text{to meet with a very large number of dentists, and he is not aware of a single one to whom he wrote or spoke that had a good word to say of this particular action. Even those who were members of the College of Surgeons stigmatised it as an impertinence, they never having been consulted; while the fact that there were names of unqualified men [John Tomes for example] attached to the document made the ignoring of those outside who were qualified a still more annoying injustice to bear.}
\]

Mr Belfour, Secretary of the RCS, again stressed the need for a responsible body of dentists with which to negotiate, and in response the Memorialists instituted the ‘Odontological Society’ (today incorporated in the Royal Society of Medicine). In addition to the dentist Fellows already named (Cartwright, Tomes and Salter), Charles Spence Bate (40), who took his LDS diploma on the day after Tomes and would be elected a Fellow in 1861, was an active member of this Society. Cope believed that the Odontological Society owed its existence to the guidance and initiative of Tomes, who wrote the minutes for the preliminary meeting.  

As the discussions with Belfour show, by 1856 the tide had turned favourably for the Memorialists. Tomes’s friend James Moncrieff Arnott, now FRS (22), was President of the RCS, and Mr Thomas Emerson Headlam, MP for Newcastle, proposed a Medical Bill that was suitable for the insertion of a clause permitting the RCS to examine dentists. The Memorialists were prepared, and had their clause ready. Headlam said that he would support it; however, as Proposer of the Bill he could not insert it himself, and an independent member of the House must be found.
As Hill recounts:

The next step was to obtain the assistance of... a Member of Parliament as had been indicated by Mr Headlam. ...the late Mr Arnold Rogers felt sure of the aid of Mr Walpole, but... that gentleman failed him. Mr Tomes, however, with his usual caution and forecast, had reserved his action in the matter, and was prepared to ask Mr A. Beresford Hope (45) to introduce the clause, ['48. Her Majesty may grant power to College of Surgeons to institute examinations, etc., for dentists.'32] to which that gentleman courteously acceded.33

and ‘...the House adopted it without one dissentient voice.’34 Hill’s account is flawed in one important detail, for Headlam’s Private Member’s Bill failed (Roberts gives in detail the reasons for the failure of Sir James Graham’s Bill, and of the Headlam Bill) but was replaced by Cowper’s Bill, to which the clause was again appended. William Cowper was President of the General Board of Health, and the stepson of Palmerston, the Prime Minister, and proposed the Bill as a Government measure. As such it carried the weight necessary to overcome any professional infighting.35

Where John Tomes was the draftsman for the Memorialists, the greater task of drafting Cowper’s Bill was the responsibility of John Simon FRS (24), Chief Medical Officer to the General Board of Health. Simon, one of the most important figures in public health in the nineteenth century, one year younger than Tomes, had been a contemporary of his at King’s College Hospital. He had been the apprentice of Green, and like Tomes he was a close friend of Bowman, with whom he had collaborated in a paper.36 Although it is possible that Tomes and Simon were not acquainted, it is unlikely, and any such acquaintance would have made the smooth passage of the dental clause much more certain. The converse is even more the case: any objection from Simon would have been fatal to the cause of the Memorialists.

The magnitude of the achievement of Tomes and the Memorialist party is underlined by Peterson in her critique of the culture of the mid-Victorian medical profession:

the medical establishment was not eager to incorporate the new specialties into the examining system. ...Attempts on the part of specialists to gain a place in the system of medical education and licensing through the issuance of special diplomas met with thoroughgoing resistance from the Royal Colleges. The RCS’ dental licence, created 1859, represents the first—and for decades sole—step in the direction of special qualifications.37

After this triumph, Tomes had a major part in composing the curriculum to be followed by students of dentistry in preparation for taking the new diploma,38 for which five of the six examiners were Fellows of the Royal Society. Appointed by the RCS were Sir William Lawrence FRS, Joseph Henry Green FRS and James Moncrieff Arnott FRS, and the dentist examiners proposed by the Odontological Society were Thomas Bell FRS, John Tomes FRS and Arnold Rogers.39 A sixth Fellow, James Salter FRS, took his place later as successor to Bell.

However, in 1859, before the first examinations in 1860, there was a false step by Tomes. Encouraged by the success of the LDS campaign, he had approached Lord Robert Cecil (42), the brother-in-law of Beresford Hope and MP for Stamford in Lincolnshire, in an attempt to pass, through his good offices, legislation enabling those holding the new licence (and only
those) to be entered in the newly established Medical Register. This led to an angry response from the College party led by Rymer, who stated:

> It was never for a moment believed that Lord Robert Cecil was the originator of the motion of which he had given notice; and the council having communicated officially with his Lordship, ascertained that he had not been candidly informed as to the real feeling and position of the profession; that the motion had been drawn up by Mr Tomes; and that Lord Robert Cecil would not have taken any steps in the matter had he been told plainly, as he ought to have been, that the motion was one upon which the dentists would be very far from unanimous. That any individual should presume to influence legislation for the benefit of a certain few, and to the detriment of the general body, otherwise than in an open and straightforward manner, is a proceeding of which the profession will be able to form a just opinion.40

If this attempt to bring the profession within legal bounds was a failure, the LDS examination was an immediate and continuing success. Both sides, the Memorialist/Odontologist and College parties, realizing that there was nothing to be gained from their continued opposition to each other, and the College having lost half its membership to the examination, entered into negotiations and merged in 1863, in which year Rymer himself took the diploma. Progress towards registration, that essential next step to proper professional governance, then stalled for 15 years, until in 1875 a meeting of dentists was called under the chairmanship of a Mr Fox in Manchester, and a new Dental Reform Committee was formed with wide professional support. In a bizarre touch, a bust of John Tomes, who was not present, had been placed behind the chair (figure 5).41 The account given by Hill ends in 1876, the ‘Manchester Movement’ being clearly too much for him. His closing words were, ‘The hope of “registration” for licentiates in dental surgery is, at present, and possibly for some time yet may continue to be, a faint one . . .’.42 In this he had greatly underestimated the capabilities of John Tomes.

In October 1877 the real Tomes, rather than his effigy, was elected to the chair and he was given absolute authority over the campaign. The drafting and work for a new Bill was shared between Tomes and James Smith Turner,43 and it was shown to all the concerned colleges and corporations, with only two alterations then needed. For one of these alterations (permitting legally qualified medical persons to practise dentistry without an LDS) Tomes had had to adjust his position to get the Bill through. That he was prepared to do so on a principle he had held strongly all the way through his campaign reveals his political maturity at this stage. As a result, on 15 July 1878 Tomes’s friend Sir John Lubbock FRS (36) successfully piloted the Dentists Act through its stages in the House. Clause 6 of the Act sums up what was achieved, as:

> Any person who—(a.) Is a licentiate in dental surgery or dentistry of any of the medical authorities; . . . or (c.) Is at the passing of this Act bona fide engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy, shall be entitled to be registered under this Act.44

Cope picturesquely described Tomes as the British dental profession’s chief architect in this laying of its cornerstone, and Tomes was the first to register (figure 6).45

The earlier 1858 Medical Bill, which enabled the LDS examination for dentists, had had as its primary purpose the establishment of the General Council of Medical Education and Registration of the United Kingdom (the GMC). The wide extent of the engagement of Fellows of the Royal Society in the governance of medicine, and now dentistry, through
participation in the GMC is revealed in the list published in the first Dentists Register. The first and second Presidents of the GMC had been Sir Benjamin Collins Brodie (1), who had sponsored Tomes, and Joseph Henry Green (3), co-examiner with Tomes for the new LDS. The President when the first Dentists Register was published in 1879 was Henry Wentworth Acland FRS (29). (The names of the 21 Fellows linked to the GMC are given in Appendix 2 in the electronic supplementary material.)

The developments in 1878 invigorated dentists as members of a unified profession, and in 1880 the British Dental Association was formed on the initiative of Tomes’s erstwhile adversary Samuel Lee Rymer. Tomes was elected its first President and it was felt to be the whole profession that was honoured when he was knighted in 1886. He had been...
hesitant about accepting the honour, and received a telegram from a friend saying, ‘Be good and benighted, for the sake of the profession.’ There remained one final step in the nineteenth-century reform of dentistry: the creation in 1898 of the Dental Board within
the General Medical Council. The Crown Appointee to this Board was Sir John Tomes’s son, (Sir) Charles Sissmore Tomes FRS (44).49

THE ROYAL SOCIETY AS A SUPERCULTURE

Writing in 1876, Hill made the following judgement:

Throughout the entire movement towards reform the name above written [Mr. John Tomes] has been one of power. It is associated in the minds of those who have been intimately acquainted with its possessor with the ideas of science, professional success, integrity, and hard work.50

Power is an unusual word to find here. Previously, and certainly to Tomes’s contemporaries in the opposition College party, the Memorialist party was considered successful because of the influence deriving from its alliance with the College of Surgeons. The finding in this study, that 70 Fellows of the Royal Society can be associated with the reform of dentistry in the nineteenth century, and so many of them with John Tomes in person, suggests strongly that it was in fact his membership of the Royal Society that was the source of the power acknowledged by his peers.

Hill, who was a past pupil of Tomes as well as historian of the reform, spoke for many dentists when he deplored the fact that, as he saw it, Tomes belonged too much to the culture of the surgeons at the College and not to the culture of the dentists whose cause he was so energetically pursuing. 51 In this he was only partly correct, for in spite of his being in the Memorialist party Tomes did not become a Member of the College of Surgeons until 1859, when its Secretary, Belfour,

plainly told Mr. Tomes that he was the source of considerable embarrassment—to use no stronger term—to the executive in Lincoln’s Inn Fields. . . . ‘You write upon physiology and surgery, and are quoted as an authority on these subjects, and yet you are not a member of the College. If,’ continued Mr. Belfour, ‘the Council will grant your request in forming a dental department, as you desire, will you promise to become a member yourself?’ Mr Tomes agreed to this proposal, and accordingly, when the licentiateship was about to become a fact, he redeemed his promise and took the degree at once.52

The intention of both Rymer and Tomes was for dentistry to be recognized by the existing culture of medicine. In this aim of dental recognition it might be considered that Rymer and the College party had chosen the way more likely to succeed, by showing that dentists were capable of organizing, examining and governing themselves independently, and to a standard on a par with medical governance. However, it was Tomes who was ultimately in the stronger position. In 1975 the British commentator Christopher Bigsby made the concept of ‘Superculture’ widely known through the title of a collection of essays, which he edited to demonstrate the extent of American cultural influence on Europe.53 A century earlier, Matthew Arnold provided the definition for this meaning of culture—all that makes a cultured man or woman:

...
Bigsby demonstrated that Arnold’s coin could have its obverse when a potentially overwhelming superculture is brought to bear.

In Tomes’s case the Royal Society was a beneficent superculture in the context of ‘a culture’ as discussed and modified by the Snow–Yudkin debates on Snow’s Rede Lecture, *The two cultures and the scientific revolution*, and placed in a medical context by Bishop, where that culture is the ethos of a defined group. The culture of medicine and the surgeons, as Rymer and Tomes found it, is summarized by Loudon, who describes in detail the conflict between the specialist societies and general medical practice, and the extreme sensitivity of those societies to the activities of any irregulars, together with a paradoxical scorn for those within their ranks who specialized in one organ or system. (This is clearly seen in the comments of the President of the College of Surgeons above—surgeons who specialized in dentistry were ‘seceders’.) Peterson, who continues from Loudon with the mid-Victorian medical profession, usefully identifies the nature of the power struggle and its origins. Perhaps the most illuminating of Peterson’s observations lie in identifying the roads to a balance in that power through, for example, the specialist hospitals such as the dental hospitals that the Memorialists and the College party founded in London, and the dental dispensary that Spence Bate founded in Plymouth.

In such a superculture as the Royal Society, composed of members from many walks of life, access to information is broadened, as when on 20 February 1857 Tomes was able to inform the Council of the Odontological Society that the all-important Bill for regulating the medical profession (discussed above) was about to be brought before Parliament. Even more important is that along with broader sources of information goes a wider field for action, and for this and many other reasons a member of a superculture is more effective than members of a monoculture, even one as powerful as the surgeons, and much more so than the dentists of the College party. In Tomes’s case it may be inferred that the knowledge of ‘belonging’ to such a peer group was a powerful reinforcement to a talent already robust.

Some work has been done to show the extent to which the rival College party had the benefit of members who owed allegiance to another superculture that was influential in the nineteenth century, the Freemasons. Records recently opened to the researcher show that Rymer, the President, Somerset Tibbs, his Vice-president, and James Merryweather, a member of his Council, were Freemasons, and the first open meeting of the College party was held at the Freemasons’ Tavern in Great Queen Street in 1856. Inevitably, when research on the influence of Freemasons on dentistry in the nineteenth century is done, there will be names appearing on both sides; for example, Sir James Graham was a Freemason as well as a Fellow of the Royal Society. However, the records of the Freemasons reveal no entries for John Tomes (or his son (Sir) Charles). This is important if it is to be maintained that Tomes’s primary source of strength was his cohort of Fellows of the Royal Society, and no other society or fellowship.

The central place of Fellows of the Royal Society in the establishment of modern legal governance for the dental profession is a significant and unexpected finding in the record of the history of the profession. Although Cope came close to identifying the culture to which Tomes belonged, he saw his membership as a Fellow of the Royal Society as a passive influence, through which he would be widely known and respected. This paper...
provides evidence to show the truth of this, but also very much more: it reveals the extent to which John Tomes’s election as a Fellow in 1850, and his association with Fellows, and those who became Fellows, lent him the power that Hill commented on. Tomes’s Fellowship of the Royal Society should be regarded not as passive but as the pre-eminent and active factor in his success.

ACKNOWLEDGEMENTS

We thank the staff and Curators of the British Dental Association, and the Librarians of the Library and Museum of Freemasonry, for their assistance in research, and Professor Roger Jones for advice and clarification of the Headlam Bill and the place of Sir John Simon.

NOTES

4 The Baltimore, Maryland, College of Dentistry was founded by Horace H. Hayden and Chapin Harris and was granted its Charter by the Maryland General Assembly in 1840. It awarded the Doctorate in Dental Surgery (DDS) by examination.
10 Cope, op. cit. (note 8), p. 10.
12 Cope, op. cit. (note 8), p. 12.
15 J. Evrard, Invoice to Tomes, 4 August 1840. BDA Museum 7467.
17 Cope, op. cit. (note 8), p. 59.
19 Royal Society citation for John Tomes, op. cit. (note 11).


Cope, *op. cit.* (note 8), p. 65.


Cope, *op. cit.* (note 8), p. 72.


Cope, *op. cit.* (note 8), p. 79. The present whereabouts of this bust is unknown. The one illustrated is a twentieth-century version.


Cope, *op. cit.* (note 8), pp. 84–89.

*Dentists Act, 1878* (41 & 42 Vict. Ch.33). *An Act to amend the Law relating to Dental Practitioners* (22 July 1878).


Cope, *op. cit.* (note 8), p. 90.

Cope, *op. cit.* (note 8), p. 95. The phrase ‘good and benighted’, referring as it does to being lost in the dark, is in truth one of the least applicable to John Tomes.


Hill, *op. cit.* (note 3), for example pp. 40–41, 48 and 49.


57 I. Loudon, *Medical care and the general practitioner 1750–1850* (Clarendon Press, Oxford, 1976). Chapter 9, ‘The profession in a state of confusion’, identifies and discusses the absence of specialization among the physicians and surgeons; chapter 10 deals with the perception of ‘The overcrowded profession besieged by an army of irregulars’ (and it is the perception that mattered to Tomes and the Memorialists when attempting to influence the College of Surgeons); chapter 14, ‘Postscript: the Medical Act of 1858’, serves to underline both the achievement of Tomes and the vital importance of his timing.

58 Peterson *op. cit.* (note 37). In Chapter 4, ‘The formation of a professional elite’, Peterson identifies the two opposing currents, as the Court appointments, patronage, and nepotism, characteristic of the past, yielded to the right to power based on specialist knowledge. On page 279 it is stated succinctly that the specialists (such as the dentists) prevailed to the degree that they embraced the ideals of charity, science and the public good.

59 Cope, *op. cit.* (note 8), p. 66.


61 Diane Clements, Director of the Library and Museum of Freemasonry, personal communication, 12 October 2009.
